
E v o l D i r

June 1, 2014

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

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.

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



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Asilomar USA InvasionGenetics Aug13-15

REGISTRATION OPEN!

Invasion Genetics: The Baker and Stebbins Legacy A symposium at Asilomar, CA (USA) 13-15 Aug 2014

We are nearing the 50th anniversary of one of the most important books in evolutionary biology: *The Genetics of Colonizing Species* (1965) edited by Herbert Baker and G. Ledyard Stebbins. This classic volume was based on a symposium at Asilomar, California in 1964 and initiated the study of the genetics and evolution of invasive species. To revisit the historical legacy of the meeting and book, we are pleased to announce a symposium at Asilomar from August 13-15, 2014. The symposium will enjoy support from Wiley-Blackwell Publishers, and associated original papers will appear in a Special Issue of *Molecular Ecology* in 2015. The symposium proceedings (including the popular question-answer transcripts of the original) will also be published in 2015 as a book to mark the 50th anniversary of the original volume.

Please join us for this special event! DATES: Au-

gust 13-15, 2014 LOCATION: Asilomar Conference Grounds (<http://www.visitasilomar.com/>)

REGISTRATION: Details at <http://invasion-genetics.eventbrite.com> Contributed posters will be welcomed - title submission will open June 1, 2014.

SPEAKERS/AUTHORS: We have confirmed a broad range of contributors to reflect both the legacy of work on the genetics of colonizing species, and new contributions and perspectives:

Spencer Barrett Tim Blackburn Mark Blows Oliver Bossdorf Rob Colautti Melania Cristescu Troy Day Katrina Dlugosch Kay Hodgins Pierre Gladieux & Tatiana Giraud Mark Kirkpatrick Russ Lande Jennifer Lau John Pannell Stephan Peischl & Laurent Excoffier Loren Rieseberg Johanna Schmitt Lee Ann Rollins & Rick Shine Neil Tsutsui Mark van Kleunen

ORGANIZERS: Spencer Barrett Rob Colautti Katrina Dlugosch Loren Rieseberg

katrina.dlugosch@gmail.com

CardiffU LivestockGenomics Jun17-19

CONFERENCE ANNOUNCEMENT

Livestock Genomic Resources in a Changing World

Cardiff University, 17th - 19th of June, 2014

The ESF Genomic Resources Program is holding its final meeting at Cardiff University, UK. The meeting will focus on Livestock conservation practice in a changing world, aiming at understanding rapid changes in conservation practices in light of policy developments, climate change and diversifying market demands. The conference will focus on four themes arranged in symposia aiming to:

- 1) redefine the role of genome data in livestock conservation and prioritisation
- 2) identify improved and more integrative analysis methods for livestock genomic, environmental and socio-economic data
- 3) assess genomic resources for minority livestock species and breeds -where are we and what do we need?
- 4) horizon-scan for the twenty most important problems we need to overcome for effective livestock resource conservation during the next decade.

The meeting will feature internationally renowned speakers in each Symposium but we especially want to encourage Genomics Resources-funded students and postdocs to contribute posters and talks in the ample free sessions. Free sessions may include talks of relevance to the Symposium preceding it, but not necessarily. An Integration Activity at the end of the conference and the symposium on Horizon Scanning will focus on the production of a review article that addresses the main upcoming challenges in livestock genomic resources conservation. All participants will be invited to contribute to this article, which will be a major output from the meeting and which we hope work as a guideline for policy and strategy development, and which will be published in a major international journal.

Confirmed Invited speakers include: Dr. Francois Pompanon, Universite Joseph Fourier, France Dr. Stephane Joost, EPFL, Switzerland Dr. Johannes Lenstra, Utrecht University, The Netherlands Dr. Ezequiel Nicolazzi, Parco Tecnologico Padano, Italy Dr. Jutta Roosen, Technische Universitaet Muenchen, Germany

Prof Olivier Hanotte, University of Nottingham, UK

For further information on the conference please visit: <http://livestockgenomics.wordpress.com/> The conference organising committee can be reached through: genomicresources@cardiff.ac.uk

This conference is funded by ESF Genomic Resources Program and is organised by: Dr. Michael Bruford Dr. Pablo Orozco-terWengel Ms. Mafalda Costa

-o NRSP8 National Animal Genome Research Program - Supported by USDA/NIFA -o <http://www.animalgenome.org> | Help desk: bioinfo-team@animalgenome.org -o Unsubscribe: email "unsubscribe" to: angenmap-request@animalgenome.org

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"orozco.terwengel" <orozco.terwengel@gmail.com>

CardiffU LivestockGenomics Jun17-19 DeadlineExt

THE DEADLINE FOR ABSTRACTS HAS BEEN EXTENDED TO THE 29TH OF MAY!!

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 Dr. Jutta Roosen, Technische Universitaet Muenchen, Germany
 Prof Olivier Hanotte, University of Nottingham, UK

The conference agenda is attached as a pdf.

For further information on the conference please visit: <http://livestockgenomics.wordpress.com/>
 For additional queries please email: genomicresources@cardiff.ac.uk

Dr. Pablo Orozco-terWengel Cardiff University School of Biosciences Sir Martin Evans Building Museum Avenue Cardiff CF10 3AX Wales UK

+44(0)29 208 75206 www.pabloorozcoterwengel.nl
 Pablo Orozco <orozco_terwengel@yahoo.com>

DukeU MimulusEvolution Jun19-20 Update

Hello all *Mimulus* aficionados.

Our meeting is rapidly approaching, and a formal schedule is currently in the works. We will begin on the morning of the June 19th on Dukes campus.

Before you read below make sure to

1) *Inform us about your attendance via our google doc* [<http://goo.gl/7mNQwq>] . If you have received

this message directly as an email and cannot attend, please indicate this on the google doc.

2) Tell us about yourself. Fill out the questionnaire below and send it to mimulus2014@gmail.com

3) Let us know if you have resources to contribute to the Mimulus community (e.g. linkage maps, population resequencing data, markers, * Mimulus *focussed lesson plans or teaching resources, reference genomes, environmental data, phenotypic data etc). This will be useful in our discussion of updating the *Mimulus* website to best serve the community. email us at mimulus2014@gmail.com

4) Check out the meeting website! mimulus2014.wordpress.com

The first morning will include introductions, short talks [thank you all for your lightning talk titles, we will inform you if you are speaking], and preliminary discussions about coordinating research and building community resources. We will end the night with a reception.

We will continue these discussions, which include development of an updated website, a discussion about ongoing genome assembly and resequencing projects, a discussion of taxonomy, the development of educational and outreach activities focussed around the biology of the group, and discussion about how the community can incorporate numerous computational and methodological advances to further strengthen *Mimulus* research, on the 20th. We will conclude with enough time to take the evolution meeting by storm!!!

While we will continue updating you all occasionally via email, check mimulus2014.wordpress.com for ongoing updates. Also, feel free to email us with questions. Questions which come up more than once, will likely be addressed on the FAQ page of the website

the organizers

Fill this out this questionnaire & attach a picture of yourself. Send this to mimulus2014@gmail.com we will post this information to the meeting website mimulus2014.wordpress.com

Your Name:

Website:red copy

Institution / lab:

Position:

Research interests: 1) 2) 3) 4)

Hobbies: 1) 2)

Research blurb:

ybrandvain@gmail.com

Greifswald Germany Phylogenetics Jul14-16 Slots Available

Attention! Only few slots still available! Due to various requests, even though the deadline for registration and abstract submission has already passed, we will fill additional slots on a first-come, first-serve basis. So if you are interested to attend our meeting or if you know someone who might be, please spread the word!!!

I herewith want to announce the 1st Greifswald Phylogenetics Meeting, which will be held in Greifswald (north eastern Germany) from the 14th till the 16th of July 2014.

Registration is now open and the deadline (both for registration as well as for abstract submission) has been postponed due to various requests. There are still a few free slots, so please register asap!

Our conference poster can be found here: <http://stubber.math-inf.uni-greifswald.de/~spillner/gpm-2014/poster-gpm-2014.pdf> Feel free to print it and forward it to anybody who might be interested! For more details, please visit the conference website: <http://stubber.math-inf.uni-greifswald.de/~spillner/gpm-2014/gpm-2014.html> This meeting will have a particular focus on mathematical (e.g. graph theoretical, combinatorial, probabilistic and algebraic) aspects of evolutionary tree or network reconstruction, but it will also bring together scientists from different disciplines in order to provide the opportunity of close collaboration.

Scope:

Phylogenetics is an interdisciplinary research area that aims at reconstructing the evolutionary history of biological systems such as, for example, collections of species, populations or groups of bio-molecules. To achieve this, biologists work closely together with mathematicians and computer scientists. The conference will provide researchers from all three involved disciplines an opportunity to present their recent work and exchange ideas.

Location: Greifswald is a beautiful little town located directly at the Baltic Sea in close proximity to the famous islands Rügen and Usedom. Greifswald university was founded in 1496 and has therefore a long tradition and history. Being a former Hanse town, Greifswald is famous for its historic market square, its cathedral and

the museum harbor. Other famous towns like Stralsund with the Oceanium or the world cultural heritage city of Wismar are nearby, as well as the city of Rostock with its newly established Darwineum. The region is a holiday region but not too crowded by tourists. In July the weather is most likely to be great and we hope that if you can come to our meeting, you will find the time to stay longer and enjoy this unique area. There is a direct and regular train connection to and from Berlin, and the nearest international airports are Hamburg and Berlin.

Please note that the meeting starts early on the 14th with one of our highlight talks and ends in the evening of the 16th with another highlight talk - so if possible, please plan your stay from the 13th till the 17th of July.

The registration fee is 150 Euros (100 Euros for students).

Organizers: Mareike Fischer, Andreas Spillner, Martin Haase

Invited speakers: Olaf Bininda-Emonds, Mike Steel, Vince Moulton, Allen Rodrigo

For more details, visit our website <http://stubber.math-inf.uni-greifswald.de/~spillner/gpm-2014/gpm-2014.html> or contact Mareike Fischer: email@mareikefischer.de

Mareike Fischer <email@mareikefischer.de>

Innsbruck Wolbachia Jun6-11

There is only one week left for late registration for the 8th International Wolbachia Conference. If you have not registered yet and want to attend the meeting, visit the conference website at <http://wolbachia2014.org> or proceed directly to the registration page at <http://wolbachia2014.org/05-reg.php>. Late registration will close on 23 May 2014; please note that there will be no extension of this deadline. The conference will be held from 6 to 11 June 2014 in Innsbruck, Austria.

Conference topics will include - evolution - ecology, diversity, and dynamics - disease and pest control - cell biology - phenotypes - genetics & genomics - other reproductive parasites than Wolbachia.

Please also consider subscribing to our newsletter to be constantly informed about important news on the meeting: <http://wolbachia2014.org/nl.php> Kind regards from Innsbruck, Wolfgang Arthofer on behalf of

the WOLBACHIA 2014 Organising Committee

–

Dr. Wolfgang Arthofer

University of Innsbruck Molecular Ecology Group Technikerstrasse 25 / 5. OG 6020 Innsbruck, Austria

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http://www.uibk.ac.at/ecology/forschung/-molecular_ecology.html.en
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KansasCity EcolGenomics Oct31-Nov2

Save the dates and plan to attend the 12th Annual Ecological Genomics Symposium on October 31-November 2, 2014, in Kansas City. We will convene in the Kansas City Marriott Country Club at 6:00 p.m. on Friday, October 31st and conclude on Sunday November 2 at noon. Registration will be opening soon!

This year marks the 12th Ecological Genomics Symposium and we have put together an outstanding lineup of speakers who will cover their latest research results.

To learn about the Kansas State University Ecological Genomics Institute, please visit at <http://ecogen.ksu.edu> FEATURED SPEAKERS: Zach Cheviron, University of Illinois Casandra Extravour, Harvard University Jack Gilbert, University of Chicago Felicity Jones, Max Planck Institute, T?bingen, Germany Catherine Linnen, University of Kentucky Michael Lynch, Indiana University Sean Place, University of South Carolina Jesse Poland, Kansas State University John Stinchcomb, University of Toronto Alex Wilson, University of Miami

POSTER SESSIONS: Poster sessions will be held on Friday evening and Saturday afternoon. Poster topics should be related to the field of Ecological Genomics. A LIMITED NUMBER OF SUBMITTED POSTER ABSTRACTS WILL BE SELECTED FOR ORAL PRESENTATIONS. Please share this announcement with colleagues and students who are interested in learning more about the field of Ecological Genomics. If you have questions, please contact Michael Herman or Loretta Johnson.

Funding for this symposium is provided by Kansas State University. Ecological Genomics Institute Directors: Dr. Loretta Johnson, johnson@ksu.edu Dr. Michael Herman, mherman@ksu.edu Kansas State University, Division of Biology 116 Ackert Hall, Manhattan, KS 66506-4901 ?

johnson@ksu.edu

Kolympari Greece LepidopteraWorkshop Aug17-23

Early Registration has been extended to 6 June 2014 for the Ninth International Workshop on MOLECULAR BIOLOGY AND GENETICS OF THE LEPIDOPTERA which will be held on August 17-23, 2014, at the Orthodox Academy of Crete in Kolympari, Crete, Greece.

Topics will include

* Genome Sequencing and Mapping * Comparative Genomics, Evolution and Phylogeny * Population and Evolutionary Genetics * Post-genomic and Functional Genomic Tools and Applications * Development and Differentiation * Endocrinology, Physiology and Biochemistry * Receptors and Ligands * Immunity * Neurobiology * Transgenesis and Paratransgenesis * Viruses, Other Pathogens and Pest Control * Chemical Ecology

Registration is now open at the conference website <http://lepidoptera.ice.mpg.de> The early registration deadline is extended to 6 June 2014, final registration to 20 June 2014.

On behalf of the organizing committee, David G. Heckel
lepidoptera (at) ice.mpg.de

Marseilles 18thEvolBiol Sep16-19 AcceptedAbstracts

Dear all

The list of first accepted abstracts of the 18th Evolutionary Biology Meeting at Marseilles will be available Friday 23rd of may see <http://sites.univ-provence.fr/>

evol-cgr/ or http://aeb.fr/?page_id=333 Pierre Pontarotti <http://sites.univ-provence.fr/evol/>

Portland Insect Evolution Nov19

*We are looking for researchers of all kinds to present research on: * -insect dispersal -dispersal and metacommunity dynamics -dispersal and microcosms -or other big questions about dispersal

We will be showcasing research on these topics at our symposium entitled:

A hitchhikers guide to the microcosmos: The challenges of dispersal

*Conference: Entomological Society of America 2014 *

Location: Portland, Oregon *Date (tentative): 19 of November 2014*

The symposium will consist of a combination of oral and poster presentations. All presentations will be given priority based on order of submission. The Ent. Soc. of America may be able to provide a limited amount of funding to one or a few symposium participants.

Speakers at the symposium will be Dr. Ola Finke and Dr. Karl Cottenie among others. *A further description of the symposium is here:*

The main topic of discussion will be insect dispersal. We intend to emphasize dispersal in the context of microcosm ecosystems (e.g. bromeliad, tree hole, ephemeral pond) and their meta-community. Since this is quite a specific topic, we will be including broader talks about insect dispersal that can be linked back to a discussion of microcosm ecosystems. We believe that dispersal is often discussed amorously despite being hugely important for determining biological patterns. The goal of this symposium is to identify how the use of microcosms as model systems can bring clarity and precision to our understanding of dispersal.

Please fill out the questionnaire below and send to dominice@pegasus.rutgers.edu to apply:

Name: Institutional affiliation: Preferred email address:

I would like to submit a: Research talk Research poster

Title of proposed presentation:

Abstract (should outline main research question, brief methodology and full or partial results of the research; 400 word maximum):

Would you require funding to attend the symposium? (Note: Ent. Soc. may provide funding for one speaker)

Taxonomic information on the insect most relevant to your presentation:

Merlijn Jocque, Dominic Evangelista & Jessica Ware Rutgers, The State University of New Jersey - Newark

Dominic Evangelista <dominicev@gmail.com>

Puerto Rico SMBE Jun8-12 Poster Judges

Are any of you graduate students or postdocs who plan to attend the SMBE (Society of Molecular Biology and Evolution) meetings in San Juan, Puerto Rico in June?

I have been assigned the job of coordinating the judging of posters in the poster sessions. I need to recruit over 40 grad students or postdocs to be judges.

Each person will need to evaluate about 30-40 posters in all. If you yourself have a poster, you can still be a judge. We will of course not ask you to judge your own poster, and we will not ask you to judge posters in the same session as your poster, so that you are able to "stand" your poster without distractions.

Posters will be evaluated on a 5-point scale, and the highest-rated ones from each session will be asked to make their poster available for a second round of judging. A lot of the details remain to be worked out.

Some further details will be found at this web page: <http://evolution.gs.washington.edu/posters.html> I hope that you will consider helping with this. If you are willing, please send me an email saying so. If you are not able to do this, please bring his request to the attention of graduate students or postdocs who may not have seen his message. We hope to have judges with a wide diversity of fields and skills.

Joe Felsenstein (joe@gs.washington.edu)

Seattle Evolution Plasticity Jun27-29

2014 American Genetic Association Presidential Symposium - Evolution and Plasticity: Adaptive responses

by species to human-mediated changes to their ecosystems

The AGA symposium is less than a month away – register now! Includes a great lineup of speakers, lots of posters, 2 generously hosted receptions, and free AGA membership. AGA meetings are small and friendly, offering students a great opportunity to interact with top international researchers.

27-29 June 2014 University of Washington, Seattle

Schedule:

Friday 27 June 6 - 9 PM Hosted reception and poster session Saturday 28 June 8 AM - 5 PM Symposium, Day 1

Key Lecture by David Reznick, UC Riverside, “Hard and soft selection revisited:How evolution by natural selection works in the real world”

Saturday 28 June 6 - 9 PM Hosted reception and poster session Sunday 29 June 8 AM - 5 PM Symposium, Day 2

Noon brown-bag discussion, “What should conservation biologists and evolutionary biologists know about epigenetics?” moderated by Katie Peichel, AGA president-elect. This will follow a special presentation by Michael Skinner, WSU, “Epigenetic transgenerational inheritance of phenotypic variation in evolution: Lessons from Darwin’s finches”

Visit the AGA website to register and book housing:

<http://www.theaga.org/sample-page/aga2014/> Robin Waples, AGA President

agajoh@oregonstate.edu

Seattle EvolutionPlasticity Jun27-29 EarlyDeadline

2014 American Genetic Association Presidential Symposium - Evolution and Plasticity: Adaptive responses by species to human-mediated changes to their ecosystems

27-29 June 2014 University of Washington, Seattle

***** EARLY BIRD REGISTRATION CLOSES MAY 15 *****

* Poster abstracts ARE still being accepted on a first-come, first-served basis

AGA meetings are small and friendly, offering students a great opportunity to interact with top international researchers.

Early Registration till May 15 only \$150 for students, \$200 general - includes 2 hosted receptions

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Seville Spain PhylogeneticComparativeMethods Nov11-15

Dear Colleagues,

We are pleased to announce the upcoming conference entitled “Modern Phylogenetic Comparative Methods and their Application in Evolutionary Biology”, which will take place in Seville (Spain) from the 11th-15th November 2014.

Overview: Phylogenetic comparative methods are now widely used in very diverse fields of evolutionary biology to make robust inferences from interspecific data and phylogenies. Currently, we witness a rapid flourishing of the phylogenetic toolbox allowing researchers to tackle diverse questions concerning the evolution of

species and their traits. The conference aims at providing a bouquet of overviews on the most recent developments by the most prominent experts of the comparative methodology, and also at attracting a wide range of contributions from different fields of evolutionary biology to demonstrate how the phylogenetic comparative approach can be used to address an ample array of biological questions in different taxa.

The list of invited speakers: Joe Felsenstein - University of Washington, USA (to be confirmed) Robert P. Freckleton - University of Sheffield, UK Thomas F. Hansen - University of Oslo, Norway Charles L. Nunn - Duke University, USA Emmanuel Paradis - Institut de Recherche pour le Développement, France Liam Revell - University of Massachusetts, USA

We welcome proposals for talks and posters on any aspect of the application of the phylogenetic comparative methodology that is relevant for making evolutionary inferences. The deadline for applications is the 1st of September.

Beside the scientific program, we also organise social events to obtain a unique cultural experience from Andalusia.

For more info on the conference and how to apply please go to <http://www.mpcm-evolution.org/conference/> We look forward to seeing you in Seville!

the organising committee: László Zsolt Garamszegi - Estación Biológica de Doñana-CSIC, Spain Alejandro Gonzalez Voyer - Estación Biológica de Doñana-CSIC, Spain Carles Vilà - Estación Biológica de Doñana-CSIC, Spain Juan Arroyo - University of Seville, Spain

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Laszlo Zsolt Garamszegi
<laszlo.garamszegi@ebd.csic.es>

**Tarragona Spain ComputationalBiol
Jul1-3**

1st INTERNATIONAL CONFERENCE ON ALGORITHMS FOR COMPUTATIONAL BIOLOGY

AlCoB 2014

Tarragona, Spain

July 1-3, 2014

<http://grammars.grlmc.com/alcob2014/> PROGRAM

Tuesday, July 1:

9:15 - 10:15 Registration

10:15 - 10:25 Opening

10:25 - 11:15 Michael Galperin: Comparative Genomics Approaches to Identifying Functionally Related Genes “ Invited Lecture

11:15 - 11:45 Coffee Break

11:45 - 13:00 Liana Amaya Moreno, Ozlem Defterli, Armin Fügenschuh, Gerhard-Wilhelm Weber: Vester’s Sensitivity Model for Genetic Networks with Time-Discrete Dynamics

Sebastian Wandelt, Ulf Leser: RRCA: Ultra-fast Multiple In-Species Genome Alignments

David A. Rosenblueth, Stalin Muñoz, Miguel Carrillo, Eugenio Azpeitia: Inference of Boolean Networks from Gene Interaction Graphs using a SAT Solver

13:00 - 14:30 Lunch

14:30 - 15:45 Laurent Lemarchand, Reinhardt Euler, Congping Lin, Imogen Sparkes: Modeling the Geometry of the Endoplasmic Reticulum Network

Sean Maxwell, Mark R. Chance, Mehmet Koyutürk: Efficiently Enumerating All Connected Induced Subgraphs of a Large Molecular Network

Bogdan Iancu, Diana-Elena Gratie, Sepinoud Azimi, Ion Petre: On the Implementation of Quantitative Model Refinement

15:45 - 16:00 Break

16:00 - 16:50 Jason Papin: Network Analysis of Microbial Pathogens ” Invited Lecture

Wednesday, July 2:

9:00 - 9:50 Uwe Ohler: Decoding Non-coding Regulatory Regions in DNA and RNA (I) “ Invited Tutorial

9:50 - 10:00 Break

10:00 - 11:15 Dimitris Polychronopoulos, Anastasia Krithara, Christoforos Nikolaou, Giorgos Paliouras, Yannis Almirantis, George Giannakopoulos: Analysis and Classification of Constrained DNA Elements with N-gram Graphs and Genomic Signatures

Inken Wohlers, Mathilde Le Boudic-Jamin, Hristo Djidjev, Gunnar W. Klau, Rumén Andonov: Exact Protein Structure Classification Using the Maximum Contact Map Overlap Metric

Tomohiko Ohtsuki, Naoki Nariai, Kaname Kojima, Takahiro Mimori, Yukuto Sato, Yosuke Kawai, Yumi Yamaguchi-Kabata, Testuo Shibuya, Masao Nagasaki: SVEM: A Structural Variant Estimation Method using Multi-Mapped Reads on Breakpoints

11:15 - 11:45 Coffee Break

11:45 - 13:00 Claire Lemaitre, Liviu Ciortuz, Pierre Peterlongo: Mapping-free and Assembly-free Discovery of Inversion Breakpoints from Raw NGS Reads

Giuseppe Narzisi, Bud Mishra, Michael C. Schatz: On Algorithmic Complexity of Biomolecular Sequence Assembly Problem

Ivo Hedtke, Ioana Lemnian, Matthias Müller-Hannemann, Ivo Grosse: On Optimal Read Trimming in Next Generation Sequencing and Its Complexity

13:00 - 14:30 Lunch

14:30 - 15:20 Annie Chateau, Rodolphe Giroudeau: Complexity and Polynomial-Time Approximation Algorithms around the Scaffolding Problem

Ernst Althaus, Andreas Hildebrandt, Anna Katharina Hildebrandt: A Greedy Algorithm for Hierarchical Complete Linkage Clustering

15:30 Visit of the City

Thursday, July 3:

9:00 - 9:50 Uwe Ohler: Decoding Non-coding Regulatory Regions in DNA and RNA (II) " Invited Tutorial

9:50 - 10:00 Break

10:00 - 11:15 Carla Negri Lintzmayer, Zanoni Dias: On Sorting of Signed Permutations by Prefix and Suffix Reversals and Transpositions

Thiago da Silva Arruda, Ulisses Dias, Zanoni Dias: Heuristics for the Sorting by Length-Weighted Inversions Problem on Signed Permutations

Alexander Grigoriev, Steven Kelk, Nela Lekij: On Low Treewidth Graphs and Supertrees

11:15 - 11:45 Coffee Break

11:45 - 13:00 Carla Negri Lintzmayer, Zanoni Dias: On the Diameter of Rearrangement Problems

Amina Noor, Aitzaz Ahmad, Bilal Wajid, Erchin Serpedin, Mohamed Nounou, Hazem Nounou: A Closed-Form Solution for Transcription Factor Activity Estimation using Network Component Analysis

Kaname Kojima, Naoki Nariai, Takahiro Mimori, Yumi Yamaguchi-Kabata, Yukuto Sato, Yosuke Kawai, Masao Nagasaki: HapMonster: A Statistically Unified Approach for Variant Calling and Haplotyping Based

on Phase-Informative Reads

13:00 Closing

grlmc@urv.cat

Trento Italy WilliHennigS Jul6-10 extendedDeadline

The XXXIII Congress of the Willi Hennig Society will be held in Trento, Italy, from the 6th to the 10th of July 2014.

WHO. The Willi Hennig Society promotes studies in Phylogenetic Systematics. When first expressed by Hennig in his works, the idea that only monophyletic groups of organisms, as evolutionarily entities, should be recognized and formally named, caused hot controversy but it is now established as the standard approach to modern systematics. The Society publishes *Cladistics*, one of the most prestigious international scientific journal dedicated to phylogenetic systematics. Organizers: Massimo Bernardi, MUSE (massimo.bernardi@muse.it), Alessandro Minelli, University of Padova (alessandro.minelli@unipd.it), and Omar Rota-Stabelli, FEM (omar.rota@fmach.it).

WHAT. For the first time in its history the WHS organizes its annual congress in Italy. MUSE and the city of Trento are proud to host this important international event. The program will be developed through a series of sessions and symposia during which various issues related to phylogenetic analysis will be addressed: from systematics to biogeography to macroevolutionary analysis of individual clades. The congress will also give particular emphasis to the key topics of research in this field in Italy. Participants will have the possibility to visit the exhibition halls of the new museum at any time during the congress. Visits or research in the museum's collections will be possible following appointment (massimo.bernardi@muse.it).

WHERE. All scientific sessions will be held in the conference hall G. Canestrini of MUSE in Trento, NE Italy, Corso del Lavoro e della Scienza, 3.

WHEN. The registration desk will open in the evening of July 6th, when congress participants will be invited to a welcome party. The last session will be held on the 10th of July.

Abstract submission EXTENDED deadline 16 May 2014 Confirmation of abstract acceptance by the or-

ganization 6 June 2014 Early registration fee's deadline
13 June 2014 Final program 20 June 2014 Please note
that we will not be able to accept contributed presen-
tations nor posters after the EXTENDED deadline of
16 May 2013

PROGRAM

The meeting will be structured in three contributed ses-
sions

Symposium 1. Time: Fossils and Phylogenetic Recon-
struction

Symposium 2. Space: From Phylogeography to Vicari-
ance Patterns

Symposium 3. Clades: Zooming on Selected Branches
of the Tree of Life

and three Workshops/thematic symposia:

Workshop 1. Heterochrony and phylogenetics Orga-
nized by: Ronald Jenner and Alessandro Minelli Speak-
ers: J. Wiens, R. Jenner, C. Mitgutsch, D. Fontaneto,
A. Minelli

Workshop 2. Phylogenetic reconstruction and patterns
of genetic diversity in Amphibians and Reptiles Orga-
nized by: Mark Wilkinson and Michele Menegon Speak-
ers: S. Ursenbacher, C. Liedtke, A. Bellati, M. Wilkin-
son, M. Menegon

Workshop 3. Clocks & Rocks: testing paleontological
hypotheses in the genomic era Organized by: Davide
Pisani and Omar Rota-Stabelli Speakers: J. Vinther,
N. Longrich, D. Pisani, O. Rota-Stabelli

FOR MORE INFORMATION, TO REGISTER
AND SUBMIT YOUR ABSTRACT PLEASE
VISIT www.cladistics.org/meetings.html OR GO
DIRECTLY TO THE CONGRESS WEBSITE
AT [http://www.muse.it/it/partecipa/Congressi-e-
Convegni/archivio/XXXIII-Willi-Hennig-Society-
meeting/Pagine/congresso-whs2013-home.aspx](http://www.muse.it/it/partecipa/Congressi-e-Convegni/archivio/XXXIII-Willi-Hennig-Society-meeting/Pagine/congresso-whs2013-home.aspx) See
you all in Trento, The organizing committee

Omar Rota-Stabelli PhD Marie Curie - PAT post-
doctoral fellow Department of Sustainable Agro-
ecosystems and Bioresources, IASMA Research and
Innovation Centre, Fondazione Edmund Mach, San
Michele all'Adige, (TN), Italy. Phone:+39 0461 615393
Mobile:+39 389 8375091 Fax:+39 0461 615500

Councillor of the Italian Society for Evolutionary Bi-
ology Research Associate of the School of Biological
Sciences, University of Bristol

Society for Molecular Biology and Evolution
www.smbe.org Italian Society for Evolutionary
Biology www.sibe-iseb.it The Systematics Asso-

ciation <http://www.systass.org> The Willi Hennig
Society <http://www.cladistics.org> Unione Zoologica
Italiana www.uzionlus.it Omar's scholar [http://-
scholar.google.it/citations?user=of14yMwAAAAJ](http://scholar.google.it/citations?user=of14yMwAAAAJ)
Omar Rota-Stabelli <omar.rota@fmach.it>

UAveiro Herpetology Conservation Sep30-Oct4

We have the pleasure to invite you to participate
in the XIII Iberian Congress of Herpetology, about
the topic Risk Assessment and Conservation in Her-
petology, which will take place at the University of
Aveiro Campus, from September 30th to October 4th
2014. Organizing Committee: Isabel Lopes. CESAM,
Univ. Aveiro

Manuel Ortiz-Santaliestra: Univ. Koblenz-Landau
Amadeu Soares: CESAM, Univ. Aveiro Enrique García
Muñoz: CESAM, Univ. Aveiro Miguel Ángel Carre-
tero: CIBIO, Univ. Porto Neftalí Sillero: CICGE,
Univ. Porto Sérgio Marques: CESAM, Univ. Aveiro
Eduardo Ferreira: CESAM, Univ. Aveiro

Scientific Committee:

Isabel Lopes: CESAM, Univ. Aveiro Manuel Ortiz-
Santaliestra: Univ. Koblenz-Landau Amadeu Soares:
CESAM, Univ. Aveiro Miguel Ángel Carretero:
CIBIO, Univ. Porto António Martínez-Solano: CIBIO,
Univ. Porto Neftalí Sillero: CICGE, Univ. Porto

Confirmed Invited Speakers:

Jan W. Arntzen: Naturalis Biodiversity Center Clau-
dia Corti : Univ. Firenze Armando Loureiro: Inst.
Conservação da Natureza e das Florestas Albert
Martínez-Silvestre: Ctre. Recuperació d'Amfibis y
Rèptils de Catalunya Rui Rebelo: Univ. Lisboa Xavier
Santos: CIBIO, Univ. Porto Neftalí Sillero : CICGE,
Univ. Porto

We will provide short advanced courses (3 h) to be
taught on September 30th:

- Ecotoxicology of amphibians and reptiles - Modelling
in Herpetology - Scientific illustration in Herpetology

Important deadlines:

Abstract submission: 15 April - 31 July 2014 Regis-
tration deadline (advanced courses & field trip on last
day): 1 September 2014

Fees:

Up to September 1st: General - 150; Member of AHE/SPH - 125; Student - 60; Student University of Aveiro - 35 After September 1st: Corresponding reduced fee + 50

For any information or questions contact: BIO-herpe2014@ua.pt or go visit our website: herpe2014.web.ua.pt

Emanuele Fasola Msc PhD student at Department of Biology of Aveiro University (DeBio, Universidade de Aveiro), CESAM (Centro de Estudos do Ambiente e do Mar), applEE (applied Ecology and Ecotoxicology & group).

CESAM webpage: <http://www.cesam.ua.pt/-emanuelefasola> Campus Universitário de Santiago, Universidade de Aveiro, 3810-193 Aveiro, Portugal. Mail: emanuele.fasola@ua.pt or vanderfas@alice.it

Member of: Italian Society for Evolutionary Biology SIBE www.sibe-iseb.it and Member of: Student Affairs Committee of European Society for Conservation Biology SCBEuroSAC <http://scb-students.wikispaces.com/> “vanderfas@alice.it” <vanderfas@alice.it>

Uillinois UC ArthropodGenomics Jun12-14 DeadlineMay30

This is the last week of registration for the 8th Annual Arthropod Genomics Symposium! Register by Friday to ensure your spot.

The schedule of speakers for AGS 2014 is available on the website (link below.)

Important Dates:

Friday May 30, 2014: Deadline for Symposium registration

Tuesday, June 10, 2014: Deadline to reserve official conference lodging

The 8th Annual Arthropod Genomics Symposium will be held Thursday, June 12 – Saturday, June 14, 2014, hosted by the Institute for Genomic Biology at the University of Illinois at Urbana-Champaign. The link for conference registration and abstract submission is below. Two speakers for each session of the symposium will be selected from among the submitted abstracts.

The symposium will feature sessions on the i5k consortium, vector biology, social insects, microbiomes, and

population and comparative genomics. Patricia Wittkopp (University of Michigan) will give the keynote lecture on the evolution of promoters and gene regulation in *Drosophila* on Thursday evening. Judy Willis (University of Georgia) will give a retrospective lecture on 50 years in insect genomics on Friday evening.

All are also invited to register for a pre-symposium Epigenomics Workshop to be held on-site on June 12.

To register for the Arthropod Genomics Symposium or view more information visit: http://conferences.igb.illinois.edu/arthropod/_ags@igb.illinois.edu

Uillinois UC ArthropodGenomics Jun12-14 Register

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http://conferences.igb.illinois.edu/arthropod/_ags@igb.illinois.edu

UToronto Mississauga InvasivePlantEvol Aug6-8 Deadline

Terrestrial Invasive Plant Species II: Early Bird Deadline and News

The Terrestrial Invasive Plant Species II meeting will be held at the University of Toronto Mississauga on 6-8 August 2014. We are inviting presentations on the ecology, evolution, impacts, and management of plants invading terrestrial systems in Ontario and surrounding areas. Please visit our website (<https://secure.utm.utoronto.ca/tips2>) for details.

Deadlines:

This is a reminder that early bird registration for TIPS II ends on May 31; the deadline for abstract submission is June 20. Please see <https://secure.utm.utoronto.ca/tips2> for on-line registration and abstract submission information.

Program and Invited Speakers:

A draft schedule is now available on the website (<https://secure.utm.utoronto.ca/tips2/tentative-program>); we will update it to accommodate the abstracts that we receive. Our keynote speakers are Spencer Barrett from the University of Toronto, and Kirsten Prior from the University of Florida. We also are organizing special sessions devoted to biocontrol and microbial interactions involving invasive plants; confirmed speakers to date include Bernd Blossey (Cornell University), Rob Bouchier (Agriculture and AgriFood Canada), Richard Casagrande (University of Rhode Island), John Gaskin (USDA-ARS), Harriet Hinz (CABI Switzerland), Lindsey Milbrath (USDA-ARS) and Richard Shaw (CABI UK).

Field Trips:

We are offering two pre-conference field trips on August 6, at a modest additional cost: the Carden Plain Alvar, and Rouge Park (<https://secure.utm.utoronto.ca/tips2/optional-field-trips>). If you would like to partici-

pate in one of these trips, please submit your payment with your conference registration; see our registration page for details. If you already have registered, or wish to add a field trip at a later date, please contact Antonia Maughn (antonia.maughn@utoronto.ca) for instructions. There also will be a lunchtime walk from the conference venue into the Credit River valley on August 8.

See you in August!

TIPS II Organizing Committee: Peter Kotanen, University of Toronto Mississauga (lead organizer) Sandy Smith, University of Toronto (St. George) Roberta Fulthorpe, University of Toronto Scarborough Ben Gilbert, University of Toronto (St. George) Marc Cadotte, University of Toronto Scarborough Pedro Antunes, Algoma University Colin Cassin, University of Toronto Mississauga (student member)

Peter Kotanen <peter.kotanen@utoronto.ca>

Vairao Portugal BehaviouralEvol Oct9-10

SPE2014 - 11th Congress of the Portuguese Ethological Society

SPE2014 will take place on the 9th and 10th of October 2014 in Vairão, near Porto, Portugal. The congress covers all research areas in animal behaviour, and talks given in English.

This year's congress draws invited speakers from the areas of behavioural genetics, neuroscience of fear, and phylogenetic meta-analyses of behaviour. The list of invited speakers is:

Nadia Aubin-Horth - Université Laval, Québec
Adam Jones - Texas A&M University
Marta Moita - Champalimaud Neuroscience Programme, Lisbon
László Zsolt Garamszegi - Estación Biológica de Doñana, Sevilla

Registration is open, and the deadline for abstract submission is the 15th of July.

More info at <http://www.ispa.pt/spe> or <http://webpages.icav.up.pt/beheco/spe/congress.htm>
Gonçalo Cardoso <gcardoso@cibio.up.pt>

GradStudentPositions

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BlackHillsStateU SpearfishGenomics

BlackHillsStateU_Spearfish_Integrative_Genomics

The Masters in Science in Integrative Genomics program at Black Hills State University (Spearfish, South Dakota) currently has openings for the Fall 2014 semester. This program exposes students to modern techniques and instrumentation in the laboratory and field and prepares students for success in both academic and other biotechnology-related pursuits.

Graduate Research Assistantships (RAs) are awarded to students and provide a competitive stipend (\$16,640/yr) plus funding for research. All RAs receive a reduced tuition rate (1/3 of in-state rate) and assist with instruction of undergraduate-level science labs.

Black Hills State University, located in the heart of the northern Black Hills V Spearfish, SD, offers 75 academic programs at the associate, bachelor, and master degree levels. BHSU, which has over 4,000 students, has earned a reputation for transforming lives through innovative, high-quality academic programs and a dynamic learning community. Our location provides a natural laboratory for Integrative Genomics. We are also close to the Deep Underground Science and Engineering Lab-

oratory (DUSEL) at Homestake Mine, allowing for collaboration with other major universities (to study, for example, the meta-genomics of the unique microbial communities found in extreme environments).

Learn more about the community here:

www.visitspearfish.com www.youtube.com/watch?v=HTsFzC9vESI
www.youtube.com/watch?v=BrRRHz2TRDs Information about M.S.

Integrative Genomics program requirements and application process can be found here:

www.bhsu.edu/Academics/GraduatePrograms/-IntegrativeGenomics/tabid/2164/Default.aspx For further information email: Raeann.Mettler@bhsu.edu

Raeann Mettler <raeann.mettler@gmail.com>

Bolzano Italy ancientDNA

Job Announcement

PhD position in the field of ancient DNA research

Institute for Mummies and the Iceman, EURAC research, Bolzano, Italy

We are looking for a scientist with strong expertise in advanced molecular techniques and an interest in applying innovative methods to the field of ancient DNA research. We offer a three years doctoral position at the EURAC - Institute for Mummies and the Iceman. Our institute gathers and coordinates all currently available scientific data on the Iceman and various other mummies.

Required qualifications. We are looking for a highly motivated and independently working scientist with a strong conceptual and practical background in the application of molecular techniques on ancient human remains. Experience in one or more of the following areas/techniques will be of advantage: genomics, microbiology, bioinformatics, population genetics. The successful candidate should have an interest in applying advanced molecular methods in the field of ancient DNA research. Proficiency in spoken and written English is mandatory.

Conditions of appointment. We offer up to 3 years of appointment as a PhD student according to the salary scheme of the EURAC. The EURAC is an equal opportunity employer.

Application. To apply, please send an email (subject: PhD ancient DNA research) within 30.06.2014 to mummies.iceman@eurac.edu containing a pdf-file with a short cover letter, a detailed CV (including a brief description of research interests and of the educational background). Please attach the following consent to your personal record, in accordance to the data security decree 196/2003 about personal data handling: 'I authorize EURAC to use my personal data in accordance to decree 196/2003.' We inform that we will not be allowed to consider any application without this compliancy declaration.

Job start date is August 2014 - October 2014

Maixner Frank <frank.maixner@eurac.edu>

INRA RennesFrance BatPopulationBiol

PhD Position in Rennes, France

The aim of this thesis is to evaluate the dependence of the dynamics of populations of the lesser horseshoe bat vis-à-vis the quality of the environment, in order to better understand the overall dynamics of the species and to make recommendations in terms of forest manage-

ment. The research area being located at the current northern limit of the range of the species, which tends to progress because of global warming, particular attention will be paid to correlations between traits (dispersal, reproduction) to test the hypothesis that these correlations are modified close to distribution margins, particularly during recolonization dynamics.

Methodological approaches considered include (1) the use of georeferenced databases, (2) non-invasive genetic approaches, (3) the development and use of capture-mark-recapture models for estimating dispersal rates, survival, recruitment with noninvasive genetic data, and (4) statistical analysis using generalized linear models.

The candidate should have (or at least be willing to develop) skills in population dynamics and population genetics, landscape ecology, management / treatment of geo-referenced databases, programming (via the R program) and, this is very important, have good writing skills (in both French and English languages).

Starting date: october 2014

Admission: competitive (see <http://www.vas.univ-rennes1.fr/en/home/competitive-admission-process/>)

For more info, see profile 123 on <http://www.vas.univ-rennes1.fr/fr/vous-souhaitez-realiser-une-these/-recrutement-VAS/profils/ecologie/> If interested, please contact Eric Petit <eric.petit@rennes.inra.fr> before may 20th

Eric Petit UMR ESE INRA Rennes

Eric Petit <Eric.Petit@rennes.inra.fr>

INRA RennesFrance FishSexEvolution

PhD Position in Rennes, France

A PhD position is available on the "Evolution of Sex Determining genes in Fishes" in Rennes at the INRA Fish Genomics laboratory (http://www6.rennes.inra.fr/lpgp_eng/).

Sexual reproduction is one of the most highly conserved processes in evolution and implicates many fields of biology but also animal and plant breeding and human health and society. The genetic and cell biological mechanisms making the decision whether the undifferentiated gonad of the embryo develops either towards male or female are manifold and quite different. Sex

determining (SD) mechanism range from environmental to simple or complex genetic mechanisms and have evolved obviously repeatedly and independently. Fish are uniquely suited to study the evolution of sex determination and SD genes. This project aims at the characterization of the evolution of master sex determining genes in fish with a focus on a limited number of species from one fish family.

This project has then two major objectives: (1) to screen for potential sex determining genes in a few fish species; (2) to demonstrate the role of one identified gene as a master sex determinant in one selected species. To address these questions, this project will be based on preliminary results from our group revealing potential new sex determining genes in a few fish species. These candidate genes will be used to identify more precisely the sex determining locus and their evolution in these species. Candidate genes will be evaluated by transcript profiling and finally a selection of one candidate gene will be taken for functional characterization using additive transgenesis and gene knockout approaches.

This project will make use of many different methodological approaches including high throughput sequencing, in silico analysis of these sequences (bioinformatics, genetics, genomics) and the development of molecular studies on the evolution of the sequences identified within the project i.e., conservation / evolution of sex determining genes within different taxa (species, genus, family ...). This project will also need the development of new animal models genetically modified in order to prove the functionality of one candidate gene as a master sex determining gene in one fish species.

The PhD candidate should have skills in molecular biology and / or evolution biology and / or developmental biology. Basic biological knowledge needed on genetics and interest for in silico analysis (bio informatics).

Starting date: october 2014

Admission: The funding of this PhD is already secured but candidates need to go through a competitive admission process (see <http://www.vas.univ-rennes1.fr/en/home/competitive-admission-process/>)

For more info, see profile 45 on <http://www.vas.univ-rennes1.fr/fr/vous-souhaitez-realiser-une-these/recrutement-VAS/profils/agronomie/>

If interested, please contact Yann Guiguen <yann.guiguen@rennes.inra.fr> before the 6th of June 2014.

Yann Guiguen

INRA-LPGP

Rennes

Yann Guiguen

Equipe Différenciation Sexuelle et Ovogenèse (DSO) Laboratoire de Physiologie et Génomique des Poissons INRA-LPGP, Département PHASE Campus de Beaulieu 35042 Rennes Cedex <http://www.rennes.inra.fr/scribe/> Tel: 33 (0) 2 23 48 50 09 Fax: 33 (0) 2 23 48 50 20 Email: Yann.Guiguen@rennes.inra.fr

The next Conference of European Comparative Endocrinologists will be in Rennes 25-29 August 2014: <http://cece2014.wordpress.com/category/home/> Yann Guiguen <yann.guiguen@rennes.inra.fr>

INRA Rennes France Salmonids Population Dynamics

PhD fellowship on population dynamics of salmonids at INRA Rennes, France

A PhD position supervised by Marie Nevoux and Guillaume Evanno is available at the Ecology and Ecosystem Health Research Unit <http://www.rennes.inra.fr/ecologie_sante_ecosystemes> (INRA - Agrocampus Ouest) in Rennes. The appointment is for a period of 3 years, starting date: October 2014.

The applicant will study the impact of recent environmental changes on the evolution of the reproductive strategy in two salmonids (*Salmo salar* and *S. trutta*), and their consequences on population resilience. Using long-term monitoring data, this project will investigate: i) whether recent environmental fluctuations had an impact on the distribution of reproductive traits in French populations of salmonids; ii) whether environmental fluctuations can modify the way individuals solve trade-offs between competing life history traits; and iii) the selective pressures acting on the reproductive strategy and predict its evolution under contrasted scenarios of environmental perturbation and fishery selectivity.

The applicants should have (or at least be willing to develop) skills in population dynamics and ecological modelling, and have good writing skills.

For more info, see profile:

<http://webvas.univ-rennes1.fr/scripts/upload/-resume/124resumeA.pdf> Admission is competitive,

see:

<http://www.vas.univ-rennes1.fr/en/home/-competitive-admission-process/> Application deadline: 5 June 2014

If interested, please contact Marie Nevoux by email: marie.nevoux@rennes.inra.fr

Marie Nevoux

Research scientist

UMR ESE

INRA Rennes, France

Guillaume Evanno <Guillaume.Evanno@rennes.inra.fr>

LMU Munich BeetleEvolution

** Graduate position: PhD position at ZSM / LMU-Munich **

One German Science Foundation (DFG) funded PhD position, max. 36 months regular employment to carry out PhD research at Zoological State Collection Munich (ZSM) in the Balke Lab. The PhD will be awarded from Ludwig-Maximilians-University of Munich, Germany (LMU).

ZSM is one of the largest zoological collections in the world closely linked to LMU.

To see what we do and who we are, see: <http://zsm-entomology.de/wiki/Coleoptera> What: Study of the evolution, speciation and biogeography of aquatic beetles (Coleoptera) in the Indomalayan / Australasian Archipelago.

How: Using densely sampled molecular phylogenies.

What should I bring? Experience in DNA lab with PCR based techniques; NGS would be nice; extensive experience in data analysis; manuscript writing skills; background in / passion for entomology does not hurt; experience in population genetics / speciation research is nice extra.

What do we offer: Small group with pleasant working environment; great potential publication output; life in a wonderful city consistently ranked #1 among expats; option to conduct fieldwork in SE Asia

For complete information and application details, please see:

<http://zsm-entomology.de/wiki/->

Opportunities.in.Beetle.Lab Contact Michael Balke <michael_balke@yahoo.de>

Coleoptera-ZSM@zsm.mwn.de

LMU Munich EvolutionaryBiol

PhD studentships at LMU-Munich

The DAAD (German Academic Exchange Service) and the graduate school Life Science Munich (LSM) are offering full scholarships for students to carry out PhD research at Ludwig-Maximilians-University of Munich, Germany. The scholarships include a stipend, insurance, and travel funds.

The LSM covers many aspects of life science research, including evolutionary biology. In this field, the following projects are available:

- 1) The organization of regulatory sequences at the locus level and its functional and evolutionary consequences (supervised by Prof. Nicolas Gompel)
- 2) Evolutionary and functional genomics of *Drosophila* (supervised by Prof. John Parsch)

For complete information and application details, please see:

<http://www.lsm.bio.lmu.de/daad-lsm-application/-index.html> Applications may only be submitted through the above website. The application deadline is July 8, 2014. The start date for the scholarship is Jan. 1, 2015 or later. The program is open to non-Germans who have spent less than 15 months in Germany as of September 2014.

John Parsch <parsch@zi.biologie.uni-muenchen.de>

LaurentianU 3 EvolutionaryGenetics

We are seeking up to three MSc/PhD students to join our lab at Laurentian University <http://laurentian.ca/ebvlab> and the Centre for Evolutionary Ecology and Ethical Conservation (<http://ceec.wordpress.com>) with the following projects: 1. Evolutionary ecology of captive and wild populations - in collaboration with the Toronto Zoo, we are interested

in stress hormone levels in captive and wild populations of endangered species including Vancouver Island marmots and black-footed ferrets. Students with an “A” average will be eligible for a NSERC Industrial Post-Graduate Scholarship (Co-supervised by Dr. Gabriela Mastromonaco - Toronto Zoo). 2. Genetic structure of wild and domestic mink - Domestic mink escape from mink farms and interbreed with wild mink. We are interested in examining introgression between these genetically distinct populations (Co-supervised with Dr. Jeff Bowman - Ontario Ministry of Natural Resources). 3. Population genetics and evolutionary ecology of urban wildlife - We have examined phenotypic differences in urban and natural populations of eastern chipmunks, and are interested in expanding our project to examine gene flow and patterns of selection.

Please send a letter of interest, CV and a copy of transcripts to Albrecht Schulte-Hostedde Professor Canada Research Chair - Applied Evolutionary Ecology aschulte@laurentian.ca

Albrecht I. Schulte-Hostedde, PhD Full Professor Canada Research Chair (Tier 2) - Applied Evolutionary Ecology Department of Biology Laurentian University Sudbury, Ontario, Canada P3E 2C6 aschulte@laurentian.ca (705) 675-1151 x2356 <http://laurentian.ca/ebvlab> Albrecht Schulte-Hostedde <aschulte@laurentian.ca>

MacquarieU Sydney AvianBehaviouralEvol

3 PhD opportunities available in the Avian Behavioural Ecology research group at Macquarie University, Sydney, Australia for a start from mid to late 2014.

Project 1: Adapting to a foreign climate: the establishment of the house sparrow in Australia and New Zealand

The house sparrow (*Passer domesticus*) was introduced into Australia and New Zealand in the 1860's and has since become well established across a broad range of climates in both countries. This project will take advantage of this 'experimental' introduction to focus on behavioural and physiological adaptations to different climates through a field-based comparative approach. This research will complement our existing work on related questions in endemic Australian species and will provide insight into the capacity of avian species to adapt to changing climates.

This project will involve long periods of field-work at a variety of field sites in Australia and New Zealand along with a range of behavioural, molecular and physiological assays. The project will involve collaboration with other groups throughout Australia and New Zealand.

Project 2: The ecology and evolution of Australian birds in relation to climate

The climate of much of the central part of Australia is harsh and unpredictable with rainfall being both spatially and temporally highly variable. This project will use a variety of approaches to gain insight into the way in which this climate has shaped the life-history, morphology and behaviour of Australia's unique avifauna. The research will build a dataset characterising key traits in Australia's birds, and utilise extensive and publically available datasets on climate, environment and biodiversity. Analyses will utilise GIS techniques and require skills in both modelling and statistics in R and ArcGIS.

The project will involve collaboration with Dr's Beaumont and Gallagher (also at Macquarie). The work will be primarily desk-based and experience in spatial analysis and macroecology is required.

Project 3: The behavioural ecology of the chirruping wedgebill

The chirruping wedgebill (*Psophodes cristatus*) is endemic to the arid zone of Eastern Australia and has yet to be the focus of any behavioural study. This project will begin the study of this species in an attempt to characterise the behavioural ecology of the species to complement our recent work on three other species living in the same environment. We are particularly interested in the mating system, social behaviour and the characteristic acoustic behaviour for which the species was named. This research will require long periods of fieldwork at the remote Fowlers Gap research station in arid Australia and will also focus on bioacoustics and the molecular determination of parentage. This project will be conducted in collaboration with Dr Andy Russell at the University of Exeter, UK.

Two Macquarie University Excellence in Research Scholarships have already been assigned to these projects, one scholarship is open to all international candidates, and one scholarship is available only to residents from Australia or New Zealand. Successful candidates for the third position will be assisted in applying for other sources of funding. International candidates are welcome to apply for any of the projects listed above.

The 2014 MQRES full-time stipend rate is \$25,392 pa tax exempt for 3 years (indexed annually). In addition

to external grant support for projects, up to \$20,000 is available to cover direct research expenses and domestic conference travel. Additional internal funding opportunities of up to \$10,000 are available to support travel to overseas laboratories or to attend international conferences.

Prospective applicants should ideally have an MSc in a related discipline (with a 50% research component), and additional relevant research experience and/or qualifications. For projects 1 and 3, an ability to work in remote and harsh conditions as well as experience in capturing and handling birds is desirable, and a driving licence.

Applications should include 1) your CV, 2) a brief statement of your reasons for applying (max. 500 words) and the project you are applying to work on, 3) contact details of two academic referees, 4) nationality. Applications should be submitted electronically as a single PDF file.

Applications for these positions (and initial enquiries) should be emailed by 31st May 2014 to: simon.griffith@mq.edu.au

Assoc. Prof. Simon Griffith, Dept. of Biological Sciences, Macquarie University, Sydney, NSW 2109, Australia

Simon C. Griffith Department of Biological Sciences Macquarie University Sydney, NSW 2109, Australia. phone: +61 2 9850 1301 fax: +61 2 9850 9231 <http://www.bio.mq.edu.au/avianbehaviouralecology/> <http://publicationslist.org/s.c.griffith>

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MaxPlanckInst Tuebingen HerbariumGenomics

Max Planck Institute for Developmental Biology, Tuebingen

Evolutionary genetics and genomics

Bioinformatics - Molecular Biology

Two PhD positions are available in the newly formed Herbarium Genomics group at the Max Planck Insti-

tute for Developmental Biology. Scientific focus is the generation and analysis of DNA sequences from both present-day and historic samples (herbaria and archaeological remains) to address evolutionary questions in three main research avenues:

- Identification and timing of key events in plant domestication
- Colonization of new ecological niches by invasive or introduced species
- Plant-pathogen epidemics in recent history

Initial appointments are normally for 3 years. The positions are available immediately.

Profile 1:

The candidate will have experience in next generation sequencing analyses and strong computational skills, including proficiency in at least one major programming or scripting language and use of a Linux/Unix environment. A good understanding of molecular and evolutionary biology, statistics and proficiency in R is a plus. Proficiency in spoken and written English is a must.

Profile 2:

The candidate will have extensive experience with basic molecular biology techniques, preferentially including library preparation for next-generation sequencing. A good understanding of evolutionary genetics is required, and programming skills are a big plus. Candidates are expected to learn how to work in the Unix/Linux environment, and how to program in a scripting language and in R. Proficiency in spoken and written English is a must.

Our research is highly interdisciplinary and greatly benefits from an interactive environment with computational biologists, molecular biologists and evolutionary geneticists for daily discussions on campus. The working language is English. We work closely with local experts in plant genomics and ancient DNA, Detlef Weigel at the MPI and Johannes Krause at the University of Tuebingen, as well as a series of collaborators with expertise in plant pathology, taxonomy and archaeology. Additional information on the group, the institute, and Tuebingen can be found on our website (<http://www.weigelworld.org/research/projects/herbariumgenomics>).

Please send applications with CV, statement of interest, name of 2 references and the subject line <herbarium genomics PhD 1 or 2> to: [hernan \[DOT\] burbano \[AT\] tuebingen \[DOT\] mpg \[DOT\] de](mailto:hernan@dot.burbano.at)

Incomplete applications will not be considered.

Dr. Hernan A. Burbano

Group Leader

Max Planck Institute for Developmental Biology

– Dr. Hernán A. Burbano Group Leader - Herbarium Genomics Department of Molecular Biology Max Planck Institute for Developmental Biology Spemannstr. 37-39 Tuebingen, D-72076, Germany Phone: +49-7071601-1414 email: hernan [DOT] burbano [AT] tuebingen [DOT] mpg [DOT] de

<http://www.weigelworld.org/research/projects/herbariumgenomics>

hernan.a.burbano@googlemail.com

NTNU Norway EcoEvolutionaryDynamics

A PhD position is available at the Centre for Biodiversity Dynamics, NTNU, Trondheim, Norway. The appointment is for a period of 3 years. For applicants that speak Norwegian or another Scandinavian language there is a possibility of until 1 year extension with 25% teaching duties in agreement with the department. The position is part of the project /Eco-Evolutionary dynamics of thermal reaction norms/ financed by the Research Council of Norway.

The current research fields at the Department include ecology, ethology, evolutionary biology, physiology, environmental toxicology, and molecular biology.

Further information is available at: <http://www.ntnu.edu/biology/research> The theme of the PhD project is to understand how organisms respond to changing environmental conditions, with particular focus on temperature. This will be approached by using the highly suitable model organism /Daphnia pulex/. Experimental laboratory work will be conducted to explore how genetic variation in responses to temperature may allow evolutionary responses to changing thermal regimes. Further information on the project can be found at <http://www.ntnu.edu/biology/climate-daphnia> . The applicant must have an MSc (or equivalent) in biology. Education/competence relevant for the position includes evolutionary biology, ecology, and quantitative genetics. Education from one or more of these areas is required. Education in and experience with statistical methods is also required.

The successful candidate should be creative, with a strong ability to work problem oriented. He/she should also enjoy interdisciplinary research and take keen in-

terest in learning and working in teams.

The regulations for PhD programmes at NTNU state that a Master degree or equivalent with at least 5 years of studies and an average grade of A or B within a scale of A-E for passing grades (A best) for the two last years of the MSc is required, and C or higher of the BSc. Candidates from universities outside Norway are kindly requested to send a Diploma Supplement or a similar document, which describes in detail the study and grade system and the rights for further studies associated with the obtained degree. < http://ec.europa.eu/education/lifelong-learning-policy/ds_en.htm >

The position requires spoken and written fluency in the English language. Applicants from non-English-speaking countries outside Europe must document English skills by an approved test.

The appointment of the PhD fellows will be made according to Norwegian guidelines for universities and university colleges and to the general regulations regarding university employees. Applicants must agree to participate in organized doctoral study programs within the period of the appointment and have to be qualified for the PhD-study.

NTNU has a personell policy objective that the staff must reflect the composition of the population to the greatest possible extent.

The appointment will be made according to the general regulations regarding university employees. PhD research positions are remunerated in salary code 1017, normally at start wage level 50 on the Norwegian Government pay scale. There is a 2% deduction for superannuation contribution.

Further information can be obtained from professor Sigurd Einum, Centre for Biodiversity Dynamics, Department of Biology, NTNU, Tel. +47 735 90564, E-mail: sigurd.einum@ntnu.no

Further information about the Centre can be found at www.ntnu.edu/cbd, and for the Department at <http://www.ntnu.no/biologi> Applications with CV, certificates from both Bachelor and Master, possible publications and other scientific works, copies of transcripts, copies of documentation on English language proficiency test, and reference letters should be submitted.

Applications must be submitted electronically through www.jobbnorge.no Applications submitted elsewhere will not be considered.

The reference number of the position is: NT- 44/14

Application deadline: 1. June 2014

sigurdei <sigurd.einum@bio.ntnu.no>

UAberdeen ClimateAdaptation

Experimental evolution in seed beetles (Aberdeen, UK)

Supervisors: Dr Lesley Lancaster University of Aberdeen, UK), Professor Michael Ritchie (St Andrews University, UK) and Dr Jörgen Ripa (Lund University, Sweden)

Application Deadline: Friday 30 May 2014

Project description:

Many organisms are currently responding to climate changes with dramatic range shifts involving evolutionary responses. Among the organisms most strongly affected by changing climates are small, exothermic animals such as insects, which can evolve rapidly and quickly disperse into available niches, often posing new threats to food security (as crop or stored-food pests), human and animal welfare (as disease vectors), and affecting overall ecosystem function.

The mechanisms of niche evolution and range shift under rapidly changing climates remain poorly understood. In this PhD project, the student will investigate a number of hypothetical evolutionary trajectories that underlie rapid shifts in resource use and climatic tolerances observed during range expansions.

Using experimental evolution and crossing experiments in a captive-bred colony of seed beetles (Coleoptera: Bruchidae, a global stored-crop pest), combined with in silico modeling approaches, the student will investigate conditions producing alternative evolutionary scenarios, and the quantitative genetic/genomic basis of niche divergence under each scenario. Project outputs will inform management of evolving pest species, and will contribute to evolutionary theory. The student is expected to contribute ideas to the development of the project, which will be customized to reflect individual student background and research interests.

We will provide training in experimental evolution, quantitative genetic methods, and individual-based modelling approaches. The position also provides opportunity for travel and networking.

This position is based at the University of Aberdeen.

Please see additional details and apply here: <http://www.abdn.ac.uk/clsm/graduate/research/seed-beetles-667.php> For more information on the Lancaster lab or to contact Dr. Lancaster with

pre-application inquiries about the position: <http://www.abdn.ac.uk/sbs/people/profiles/lesleylancaster>

Lesley Lancaster, PhD University of Aberdeen School of Biological Sciences Zoology Building, Tillydrone Ave. Aberdeen AB24 2TZ lesleylancaster@abdn.ac.uk +44 01224 274551

The University of Aberdeen is a charity registered in Scotland, No SC013683.

“Lancaster, Lesley” <lesleylancaster@abdn.ac.uk>

UAberdeen EvolutionaryEcol

Evolutionary Ecology

Supervisor: Lesley Lancaster (<http://www.abdn.ac.uk/sbs/people/profiles/lesleylancaster>)

Application due date: June 6, 2014

The University of Aberdeen is currently offering PhD scholarships in life sciences to students of any nationality: <http://www.abdn.ac.uk/clsm/graduate/elphinstone-phd-scholarships.php> The Lancaster Lab is seeking a PhD student to investigate questions relating to evolutionary ecology under climate change in the UK, or to investigate niche correlates of species-level evolutionary diversification (global patterns). There is opportunity for international collaboration and travel associated with the position.

Students should be self-motivated and enthusiastic about customising a PhD project to suit their existing research interests.

Interested students should email Lesley Lancaster (lesleylancaster@abdn.ac.uk) prior to the deadline, to discuss project ideas.

Lesley Lancaster, PhD University of Aberdeen School of Biological Sciences Zoology Building, Tillydrone Ave. Aberdeen AB24 2TZ lesleylancaster@abdn.ac.uk +44 01224 274551

The University of Aberdeen is a charity registered in Scotland, No SC013683.

“Lancaster, Lesley” <lesleylancaster@abdn.ac.uk>

UEastAnglia Polyploidy and Immunity

****Closing date 31st May 2014****

Ancient whole genome duplications (WGDs) and the additional genetic resources resulting from them have played major roles in the evolution many eukaryotes. In vertebrates, there is strong evidence that two rounds of ancient WGD were followed by a third additional WGD in the teleost fishes - the fish specific genome duplication (FSGD). The role that WGD plays in the evolutionary success of recipient taxa and lineages has been hotly debated for many decades. However, while progress has been made in understanding the origins and mechanisms of the formation of polyploids in many groups, less attention has been devoted to the advantages and/or disadvantages of being a polyploid.

This PhD project will investigate two related facets of individual fitness - immune gene diversity (the MHC) and macroparasite burden, in a group of neotropical catfishes (the Corydoradinae) that have undergone multiple WGDs, ranging from ancient paleopolyploid events (~40 mya) to relatively recent duplications (~1-2 mya). The Corydoradinae are widely over South America and comprise more than 170 described species divided into 9 lineages. The group demonstrate multiple genome duplication events (polyploidy) and also exhibit complex mimetic colour pattern relationships¹.

Using sympatric communities of species (which should theoretically be exposed to the same parasites) that vary in ploidy level, this project will: 1) quantify immune gene diversity in taxa that range from diploid to polyploid; (2) quantify macroparasite burdens in multiple sympatric communities consisting of diploid and polyploid species (3) investigate the role of additional host-specific factors that may influence macroparasite burdens such as size, age, diet and population demographics.

The successful applicant join the group of Dr Martin Taylor and will receive training in next generation sequencing and associated bioinformatic analysis as well as more traditional techniques such as parasitology. There will also be opportunities for conducting field-work in South America with Brazilian collaborators.

Funding

This is a 3 year University funded studentship open to

EU applicants only and will cover tuition fees as well as providing an annual stipend of £13,726 and some funds towards research costs.

See here for further details: www.uea.ac.uk/~b141/opportunities.html To apply see here

<https://www.uea.ac.uk/study/postgraduate/apply>

Closing date 31st May 2014

For further information please contact:

Dr Martin Taylor School of Biological Sciences
University of East Anglia Norwich NR4 7TJ UK
Email: martin.taylor@uea.ac.uk webpage: <http://www.uea.ac.uk/~b141>

nitram8@hotmail.com

UExeter BatConservation

We are inviting applications for a PhD case studentship to investigate the population structure of the endangered Bechsteins bat in the UK.

Project description:

The project will use a combination of molecular and ecological approaches to develop methods that will inform practical conservation strategies. We are looking for highly motivated candidates with an outstanding academic record and a passion for wildlife conservation. They will need to combine an aptitude for data analysis and careful research in a molecular genetics laboratory, with the ability to conduct physically-demanding field work.

The successful applicants will benefit from working within a lively research environment within Biosciences (Streatham Campus, Exeter) at the College of Life and Environmental Sciences, University of Exeter, and will join a team with extensive research experience on British bats, geographical information systems, statistical analysis and population genetics.

The project is jointly funded by University of Exeter and The Vincent Wildlife Trust, and there will be joint supervision by Dr Fiona Mathews (University of Exeter, Streatham Campus) and Dr Henry Schofield (Vincent Wildlife Trust, Ledbury), with the student spending 6 months of the first and second year based with the Vincent Wildlife Trust. Supervision in molecular techniques will be provided by Dr Patrick Hamilton (University of Exeter).

This award provides annual funding to cover UK/EU tuition fees, a stipend, payment for 110 hours of work (teaching-related activities) and a contribution towards research costs. For students who pay UK/EU tuition fees the award will cover the tuition fees in full, plus £13,863 per year (covering stipend and work payment). Studentships will be awarded on the basis of merit and are awarded for three years of full-time study (part-time pro-rata).

Entry requirements:

Applicants must have obtained, or be about to obtain, a First or Upper Second Class UK Honours degree, or the equivalent qualifications gained outside the UK, in Biological Sciences or other relevant subject.

The studentship is only available to UK and other EU nationals.

<http://www.exeter.ac.uk/studying/funding/award/?id=1487> <http://www.findaphd.com/search/ProjectDetails.aspx?PJID=54719> “Hamilton, Patrick” <P.B.Hamilton@exeter.ac.uk>

UGlasgow VirusEvolution

PhD Studentship, University of Glasgow

A genomic approach to uncovering the mechanisms driving host restriction and virulence in louping ill virus

Why particular viruses are able to infect and to cause disease in some host species but not others are fundamental questions that are critical for controlling viral pathogens. This project aims to uncover the molecular and evolutionary mechanisms underlying host restriction and virulence of louping-ill virus (LIV), one of several closely related tick-borne flaviviruses in Europe that exhibit high phenotypic variability: whereas LIV mainly causes disease in British sheep and grouse, other LIV strains and related viruses elsewhere in Europe tend to affect other livestock species or human hosts. Using a combination of whole genome sequencing, bioinformatics, in vitro experiments and reverse genetics the project aims to 1) examine the genome-wide diversity and evolutionary history of LIV across its current range; 2) compare the ability of different LIV strains and related virus species for in vitro growth in a range of host species; 3) to experimentally verify putative genotype -phenotype relationships through a reverse genetics system. Through the application of powerful new technologies and analytic approaches, the

project will provide novel insights about the biology of a significant animal pathogen in the UK and advance our general understanding of the factors governing virus-host interactions.

This exciting studentship opportunity will draw on expertise from academics within the University of Glasgow and The Moredun Research Institute. The student will spend an equal percentage of their time at both locations.

BBSRC WestBio DTP studentships will follow a 4-year PhD model. The financial package will include a 4-year stipend, approved University of Glasgow fees and a consumables budget per annum. The successful student will participate in the robust MVLS College skills training programme throughout their studies. Please follow URL for further information regarding the programme structure: <http://www.gla.ac.uk/colleges/mvls/graduateschool/bbsrcwestbiotp/> (please note that this project will not involve the Mini-Project rotations as detailed in the programme structure).

Supervisors: Dr Roman Biek, Dr Colin J McInnes, and Dr Alain Kohl

Stipend: £13,726 per annum (2013/14 rate) Start date: 1 October 2014

Application Deadline: 16 May 2014

For informal enquiries contact the main supervisor (Roman.Biek@glasgow.ac.uk).

Eligibility

This position is restricted to UK and EU nationals who meet the residence criteria below.

Qualifications criteria: Applicants applying for a BBSRC WestBio DTP studentship must have obtained, or be about to obtain, a first or upper second class UK honours degree or the equivalent qualifications gained outside the UK, in an appropriate area of science or technology.

Residence criteria: The BBSRC DTP grant provides funding for tuition fees and stipend for UK and *EU nationals that meet all the required eligibility criteria. *Note that EU nationals must be able to demonstrate that they have resided in the UK for three years prior to commencing the studentship. If not, EU nationals are still able to apply to the programme, but would be eligible to receive a 'fees only' award. Full qualifications and residence eligibility details are available here: BBSRC Guide to Studentship Eligibility - <http://www.bbsrc.ac.uk/web/FILES/Guidelines/studentship-eligibility.pdf> Roman.Biek@glasgow.ac.uk

UGraz Cichlids Evolutionary Biology

A four year position as 'University assistant without doctorate' is available at the Institute of Zoology, University of Graz (Austria), in the group of Kristina Sefc. Applicants interested in completing a doctoral thesis in the framework of this position are particularly encouraged to apply.

The applicant will join our ongoing research on behavioral ecology and evolutionary biology of cichlid fishes, and is invited to participate in the design of research in line with his or her specific interests. Applicants must have a MSc degree in a relevant field, and be knowledgeable in behavior, ecology and physiology of fish. Experience or interest in fish keeping is also essential, as the applicant will be responsible for the management of laboratory fish stocks. Furthermore, experience with field work, particularly in tropical aquatic ecosystems, is a plus, as the position may require the planning and realization of field work at Lake Tanganyika.

The position also involves teaching in zoology, evolutionary biology or ecology.

Interested applicants are referred to the University's website (<http://jobs.uni-graz.at/en/MB/74/99>) for information on the application process. Please contact me if you have any questions (kristina.sefc@uni-graz.at). The application deadline is May 7, 2014.

Kristina Sefc <kristina.sefc@uni-graz.at>

UGuelph Community Phylogenetics

MSc or PhD Grad Student Opportunities Phylogenetic community structure of Ontario forest insects

There are multiple positions available for highly motivated, hard-working, and intellectually curious students to join my lab starting in the fall of 2014. I am a biodiversity scientist who works on questions of the ecology and evolution of cryptic species diversity and how climate change influences these patterns of diversity and co-evolution. My research involves understanding the diversity and phylogenetic community structure of insects in temperate and neotropical forests.

An Ontario Ministry of Research and Innovation Early Research Award will support three graduate students to study how the diversity and phylogenetic community structure of Ontario forest arthropods are affected by forestry practices. These students will be trained in DNA-based and functional biodiversity diagnostics to test multiple hypotheses in Eastern Ontario in areas within and surrounding Algonquin Park. Successful applicants will have experience in both field biology and molecular biology.

Interested applicants should submit a CV, unofficial transcript, a letter describing their research interests and career goals, and contact information for two referees to Dr. Alex Smith (salex@uoguelph.ca). Further information on my research interests and publications can be found at: <http://www.uoguelph.ca/~salex/> and on Google Scholar <http://scholar.google.ca/citations?user=i5jERHcAAAAJ&hl=en>. Information about the University of Guelph's graduate program can be found here: <https://www.uoguelph.ca/graduatestudies/> Candidates must be Canadian citizens or permanent residents. The successful applicant should possess a strong transcript (at least a B average in their last 2 years of study). The successful applicant will be guaranteed financial support for the duration of the degree program (2 years for M.Sc. students and 4 years for Ph.D. students).

Applications will be considered as received with a negotiable starting date. Applications will be considered for a September 2014 start date (or later).

M. Alex Smith email: salex@uoguelph.ca website: <https://sites.google.com/site/smithlabfieldwork/> Twitter: @Alex_Smith_Ants

M. Alex Smith PhD Assistant Professor Department of Integrative Biology University of Guelph 50 Stone Road East Guelph, Ontario, Canada N1G 2W1 phone - 519-824-4120 ex 52007 www.uoguelph.ca/~salex/ sites.google.com/site/smithlabfieldwork/ @Alex_Smith_Ants

Office - SCIE 2464 Lab - SCIE 2409

"Ignorance more frequently begets confidence than does knowledge" - Charles Darwin

salex@uoguelph.ca

UNordland Norway PopGenomics

PhD position (3 years) in marine ecology at University of Nordland

A position as PhD student in marine ecology is available at the University of Nordland, Faculty of Biosciences and Aquaculture (Bod , Norway).

University of Nordland

The University of Nordland (UiN), located in Bod , Norway, offers studies at the Bachelor's, Master's and PhD level. Each year, students are admitted to more than 100 study programmes within professional studies and theoretical disciplinary studies. UiN offers PhD programmes in Business, Sociology, Aquatic Biosciences, and Professional Studies.

Today we have more than 6,000 students and 600 staff members on campus Bod , Helgeland and Vester len.

Faculty of Biosciences and Aquaculture (FBA)

FBA is responsible for research, teaching and dissemination of knowledge within biosciences and aquaculture. In recent years, FBA has undergone a major development both in terms of faculty and infrastructure. Today FBA stands as an internationally diverse academic environment. The Faculty has approximately 80 employees in professional and technical/administrative support functions.

The teaching at the Faculty is research-based. FBA offers Bachelor's programmes in Biology, Export Marketing, Aquaculture Management and a unique Joint Bachelor Degree in Animal Science that grants students direct transfer to the veterinary studies at University of Veterinary Medicine and Pharmacy in Slovakia. Moreover, we offer Master's programmes in Aquaculture and Marine Ecology, and a PhD programme in Aquatic Biosciences.

FBA aims to be a leading international arena in the High North for education, research and knowledge dissemination in aquaculture and marine ecology, fostered by a unique genomic platform and characterized by strong interaction between the disciplines. The Faculty possesses new, state-of-the-art laboratory facilities and operates a Research Station about 10 minutes from campus. The Research Station's primary mission is to facilitate and support research activities related to seawater-related laboratory activities and research on living marine organisms. The Faculty seeks to strengthen the relations between students, the research community, public sector and the industry.

For more information, see The Faculty's website: www.uin.no/english/aboutus/faculties/fba About the Position

The Faculty of Bioscience and Aquaculture, University

of Nordland (Bod , Norway), opens for applications for a three-year PhD position in marine ecology.

The main goal of the doctoral project is to address the evolutionary relationships between copepods of the genus *Calanus*. The project will also investigate the population genetic structure of *Calanus* sp in the Arctic.

Large herbivorous copepods of the genus *Calanus* are predominant in the zooplankton biomass of the high-latitude oceanic regions in terms of species richness, abundance and biomass, playing a key role both as primary consumers and as important prey species for larvae, juveniles and adults of commercial fish. The approach will rely on Next Generation Sequencing Technologies to study genetic variation at the genome level using both genome wide SNPs genotyping and mitogenome sequencing.

Qualifications and requirements

Applicants for the position must have an MSc (or equivalent) in molecular ecology, ecological genomics, population genetics or related disciplines. Practical experience in molecular biology and population genetics is required. Knowledge and experience in zooplankton and/or bioinformatics is desirable.

Good communication skills in English, both oral and written, are required.

The PhD position is organized research training, implying that the candidate will obtain the PhD degree. It is required that the PhD student fulfils the admission requirements for the PhD programme in Aquatic Biosciences at the Faculty of Biosciences and Aquaculture, and participate in the organized research training programme. Application for admission to the programme must be submitted within three months after admission. For admission requirements and regulations, see our web page.

Personal skills

The position requires a highly motivated, systematic and independent candidate with good capabilities of working independently as well as in teams.

Salary and Working Conditions

The start salary for the PhD candidate is set at wage level 50 in the Norwegian State Salary Scale (ca NOK 421 100 per year). As an employee at the University of Nordland you become a member of the Norwegian Public Service Pension Fund and you will also get access to other social benefits. A statutory amount to the Norwegian Public Service Pension Fund will automatically be deducted from the salary.

The person who is appointed must abide by the laws, agreements and directives that apply to the position at any time. The responsibilities and duties linked to the position may be altered due to future

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UOslo AvianSpermEvolution

A 4 year PhD position is available at the Natural history Museum (NHM), University of Oslo (<http://www.nhm.uio.no>).

The subject of the PhD project is “Evolution of sperm form and function in passerine birds”. Passerine birds, and especially the oscine passerines or songbirds, are highly diversified in sexual traits, including their sperm cells. Recent research has documented that post-copulatory sexual selection, mediated by female promiscuity (extrapair copulations), shape sperm phenotypes and lead to longer and/or faster-swimming sperm over evolutionary time scales. The project will examine in more detail how particular sperm structures, especially the size and shape of the sperm head, which contains the acrosome and the nucleus, vary in response to sexual selection across the passerine phylogeny. The project will also study how variation in sperm phenotypes among males in a population is influenced by current selection pressures. NHM holds a large collection of passerine sperm samples, which will be the main source material for analysis, using high-resolution light and electron microscopy. There will also be some field work in Norway and abroad for collecting additional sperm samples.

We seek a person with strong motivation and ability to define his/her own research questions. The candidate must have wide interests in evolution and ecology, and should have good knowledge in avian systematics and practical experience with ornithological field work. Candidates with experience in microscopy techniques of biological material and relevant tools in molecular phylogenetics and comparative methods will be preferred. Applicants must hold a Master’s degree or equivalent in evolutionary biology.

The position is affiliated with the Sex and Evolution Research Group (SERG) at NHM (<https://www.nhm.uio.no/english/research/groups/serg/>). The research team will also include scientists from Finland and Czech Republic.

For further information and instructions on how to apply, see: <http://uio.easycruit.com/vacancy/1200029/-71922?iso=no>. Application deadline: 22 June 2014

Professor Jan T. Lifjeld Natural History Museum University of Oslo P.O. Box 1172 Blindern NO-0318 Oslo

Phone +47-22851726

j.t.lifjeld@nhm.uio.no

UOslo GenomicsAvianSpermCompetition

A 4 year PhD position is available at the Natural history Museum (NHM), University of Oslo (<http://www.nhm.uio.no>).

The subject of the PhD project is “Functional genomics of sperm phenotypes and cryptic female choice in passerine birds”. In many passerine bird species, females copulate frequently with extra-pair mates, which implies that sperm from different males compete for the same set of ova and that there might be sperm-female interactions affecting the outcome of sperm competition. This project takes a molecular approach to deepen our understanding of the possible mechanisms involved in this form of sexual selection at the gamete level. The project has two main goals, a) finding molecular markers or genes associated with sperm performance traits, b) test if females obtain good or compatible genes through extrapair mating, in particular immune genes at the Major Histocompatibility Complex. The project will adopt next-generation sequencing approaches for several analyses, and utilize a large sample of already-collected DNA from families of a few intensively studied species (e.g. willow warblers, bluethroats and barn swallows). There will be little or no field work but extensive analysis of molecular data for this project.

We seek a person with strong motivation and ability to define his/her own research questions. The candidate must have wide interests in molecular ecology/genetics and evolutionary biology, and good practical, hands-on experience with relevant DNA methods. Good computing skills and background in bioinformatics will be of advantage, in particular when handling and analyzing large data sets emerging from next-generation sequencing approaches. Applicants must hold a Master’s degree

or equivalent in biology.

The position is affiliated with the Sex and Evolution Research Group (SERG) at NHM (<https://www.nhm.uio.no/english/research/groups/serg/>). The research team will also include scientists from Finland, Czech Republic and USA.

For further information and instructions on how to apply, see: <http://uio.easyruit.com/vacancy/1199917/-71922?iso=no> Application deadline: 22 June 2014

Professor Jan T. Lifjeld Natural History Museum University of Oslo P.O. Box 1172 Blindern NO-0318 Oslo

Phone: +47-22851726

j.t.lifjeld@nhm.uio.no

UOslo LichenSystematics

A 4-year PhD position in lichen systematics/phylogeny is available at the Natural History Museum (NHM), University of Oslo, Norway. See this link for more information: <http://uio.easyruit.com/vacancy/1196587/-71922?iso=no> havard.kauserud@ibv.uio.no

UOxford EvolutionAvianMalaria

Supervisors: Dr Stuart Wigby (Zoology); Dr Kelly Matzen (Oxitec); & Dr Luke Alphey (Pirbright & Oxitec)

<http://www.findaphd.com/search/-ProjectDetails.aspx?PJID=50903&LID=1268> Since the arrival of Europeans in the Hawaiian Islands, 71 out of 113 endemic bird species there have become extinct, and 32 are currently endangered or threatened. Mosquito-vectored avian malaria and pox, which were co-introduced with non-native mosquito species, are primary obstacles to conservation and restoration efforts of endemic forest avifauna [1]. The mosquito *Culex quinquefasciatus* is the dominant vector of the pathogens in Hawaiian bird populations.

One promising approach for mosquito control is RIDL (Release of Insects carrying a Dominant Lethal) [2] uses transgenic technology to engineer a lethal trait in larvae, which is repressible by provision of tetra-

cycline in the larval water to allow rearing in captivity. As recently shown against the dengue virus vector mosquito, *Aedes aegypti*, sustained releases of male RIDL mosquitoes leads to substantial reduction of the target population [3], as progeny die as larvae in the absence of the chemical antidote in the field. Such mosquitoes are therefore genetically sterile. A variant of RIDL engineers repressible female death [4-7], to allow production of male-only cohorts of mosquitoes (males do not bite or vector disease). RIDL implementation is firmly grounded in years of experience with radiation-sterilised insects (the Sterile Insect Technique) while providing major improvements through the application of modern genetics.

This studentship project will seek to extend RIDL to *C. quinquefasciatus*. The student will generate transformed strains with modular constructs appropriate for function in *Culex*. Those that show a suitable RIDL phenotype will undergo assessment of biological performance parameters such as mating competitiveness and longevity in large cages. Success in the application of RIDL against this mosquito would represent the first use of transgenic animals for species conservation.

We anticipate that the bulk of the lab work will be conducted at The Pirbright Institute; and depending on progress, the project may involve lab and/or field work in Hawaii.

To apply please use the online application system at: http://www.ox.ac.uk/admissions/-postgraduate_courses/apply/ . Please remember to quote the studentship reference code WIG01. Any queries regarding the application procedure please contact graduate.office@zoo.ox.ac.uk. Please note that as this is a studentship project, no research proposal is required, please submit a statement of purpose/personal statement in its place.

The University of Oxford is an Equal Opportunities employer.

Funding Notes:

The full 4 year iCASE-NERC Studentship award, including a stipend from NERC (currently £13,863 pa) is available only to residents of the UK, or those satisfying the NERC eligibility criteria (<http://www.nerc.ac.uk/-funding/application/studentships/>). Please see NERC website for full terms and conditions. EU applicants are eligible for a fees only award. There is also a stipend enhancement of £1,000 from the Industrial CASE partner.

References:

References: [1] LaPointe et al 2009 In: Conservation

Biology of Hawaiian Forest Birds [2] Thomas et al 2000 Science 287:2474-2476 [3] Harris et al 2012 Nature Biotech 30:828-830 [4] Fu et al 2010 PNAS 107:4550-4554 [5] Fu et al 2007 Nature Biotech 25:353-357 [6] Ant et al 2012 BMC Biol 10:51 [7] Jin et al 2013 ACS Synth Biol 2:160-166

Dr. Stuart Wigby Edward Grey Institute Department of Zoology University of Oxford @StuartWigby wigby-lab.com Tel +44 (0)1865 271161

Stuart Wigby <s.wigby@gmail.com>

UQueensland GenomicsOfSexDifferences

Genomics of Sex Differences

Applications for PhD positions in evolutionary genetics are invited in the lab of Steve Chenoweth at the University of Queensland. Our group uses genomic and quantitative genetic approaches to understand the evolution of sex differences and is currently focused on the evolution of gene expression. We use both model and non-model *Drosophila* species and have recently developed significant genomic resources for *Drosophila serrata* including de novo genome and transcriptome assemblies, a panel of 100 re-sequenced lines and multiple sets of evolving populations. Projects will leverage these resources to develop innovative approaches to identify the genomic targets of sex-specific natural and sexual selection.

Prior training in the following areas is highly desirable but not essential: quantitative or population genetics, bioinformatics, genomics or evolutionary biology.

Qualifications

Applicants require either a Bachelor's degree with Honours, 'Master of Science, MPhil or equivalent degrees. International applicants usually will have published some work in peer-reviewed journals. Australian and New Zealand applicants must have received first class Honours degrees. Scholarship schemes at the University of Queensland are highly competitive. The UQ Graduate School website provides further information on the entry requirements for admission to the PhD program (<http://www.uq.edu.au/graduate-school/our-research-degrees>) and scholarship details. Individuals successful in gaining a tuition-fee waiver scholarship usually also obtain a living stipend.

****Application process**** Interested candidates should send a cover letter describing their motivation and research interests along with a CV to s.chenoweth@uq.edu.au no later than Tuesday May 13th 2013. Short-listed candidates will be asked to provide further information and documentation and will be interviewed over Skype. Following, the final applicants will be invited to apply for a PhD at UQ. For further information on the UQ application process please contact the Postgraduate Administration Officer Gail Walter gj.walter@uq.edu.au

****UQ and the School of Biological Sciences**** The School of Biological Sciences is a large and research-intensive unit at the University of Queensland, one of Australia's most prestigious Universities. The School has broad expertise across the disciplines of ecology and evolution, molecular and quantitative genetics, developmental biology, behaviour, plant and animal physiology, and conservation biology. Our research programs span all scales of biological organisation, from molecules and cells, to organisms, populations, species and communities, and take advantage of study animal and plant systems in a large variety of habitats (see <http://www.biology.uq.edu.au/> for detailed information on our research programs).

Steve Chenoweth Associate Professor School of Biological Sciences University of Queensland St. Lucia, QLD 4072 Australia

www.chenowethlab.org s.chenoweth@uq.edu.au

UTuebingen EvolutionBiol

Looking for a Ph.D. in Evolution and Ecology?

Participate in the PhD Fair / Summer school at the University of Tübingen from 19th – 22nd July 2014

Are you interested in a Ph.D. 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? Do you want to come to one of the best places in Germany in evolutionary sciences? Do you have a Masters in Biology or similar sciences or are you about to finish?

Register for the PhD fair at the University of Tübingen and take advantage of getting to know a large variety of departments and groups working all in the broad field of Evolution at the University of Tübingen. The fair also includes a course in Bioinformatics and will give

you the opportunity to collect credits for your ongoing studies.

For more information about all participating groups, the programme, the application process, etc., please refer to the EVEREST Homepage:

[*www.everest.uni-tuebingen.de/PhDfair*](http://www.everest.uni-tuebingen.de/PhDfair) **

– Johannes Krause Dr. rer. nat. Professor für Archäo- und Paläogenetik Institut für 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>

UVigo Spain Evolutionary Biol

Master in Biological Sciences (MBS) at the University of Vigo, Spain

<http://biology.uvigo.es> We are pleased to announce the *Master in Biological Sciences (MBS) of the University of Vigo (Spain)* for the *academic year 2014-2015*. The MBS aims to provide future professionals in biology with the knowledge, skills and insights they will need to take on top science-based positions around the world.

The* official language of the MBS is English*. Non-English speaking students must demonstrate that they have the minimum language skills to study the Master. Personal interviews with members of the Academic Commission might be required before admission.

The MBS teaching staff covers a wide range of areas, and includes renowned researchers, specialists in developing professional skills and practitioners from industry, with long-term teaching experience. For students interested in doing a PhD, there are two PhD programmes linked to the MBS and rated as excellent by the Spanish Ministry of Education.

Master outline

The MSc programme comprises *120 ECTS distributed between 2 academic years *(60 ECTS each). During the 1st year, students will complete a *Basic Module (12 ECTS)* on experimental design and statistical analysis, followed by an *Elective Component (42 ECTS)* where students will choose among four specific tracks:

1. Molecular Biology for Health and Life Sciences 2.

Environmental Sciences 3. Bioinformatics and Computational Biology 4. Green-Industries Management

The 2nd year includes a *Mandatory Major Project (48 ECTS)* and a *Master's thesis (12 ECTS)*, to be carried out under the guidance of one of the MBS professors.

ONLINE APPLICATION for academic year 2014-15 (no payment required)

First pre-registration period (2014): *June 27 July 3*

Second pre-registration period (2014): *August 27 September 3*

DOCUMENTS that must accompany the application form:

DNI, NIE or Passport

Bachelors degree diploma

Brief CV

PRICE FOR THE TWO-YEAR MASTER

3,763

COORDINATOR

María Jesús Iglesias Briones

*MBS ADDRESS *

Master in Biological Sciences

Facultad de Biología

Campus Lagoas-Marcosende

Universidad de Vigo

36310 Vigo

Spain

*INFORMATION: *biologicalsciences@uvigo.es

Armando Caballero <armando@uvigo.es>

UWestEngland Evolution Insect Decomposers

We are inviting applications for a PhD studentship to investigate how evolutionary relationships and the relative abundance of insect decomposers affect ecosystem function.

Project description: Around the world, human activities are causing the collapse of populations and species, and this has triggered a sixth mass extinction crisis.

Rare species are often the first to disappear, and a critical issue in modern ecology is whether common species insure against the loss of functions supported by rare species. This issue is particularly important in species-rich ecosystems such as tropical rainforests where large numbers of rare species suggest high functional redundancy. Using tropical epiphytes as natural microcosms, the PhD student will test the relationship between invertebrate biodiversity and ecosystem function via nutrient stoichiometry, that is, the relationship between the relative quantities of nutrients cycling through the epiphytes. The student will spend their first year completing preliminary data collection at the Eden Project in Cornwall (<http://www.edenproject.com/>). Studies in the second and third years, of the evolutionary relationships between insect decomposers and their effects on nutrient cycling, will be completed as part of the Royal Society's South East Asia Rainforest Research Programme (SEARRP). During this time the student will be based at Danum Valley Field Centre - the leading rainforest research centre in the Old World tropics. (<http://www.searrp.org/danum-valley/>).

The Eden Project is an internationally renowned educational charity and social enterprise containing the largest indoor rainforest in the world. Having spent one year based at the Eden Project learning field techniques in the rainforest biome, the student will continue their fieldwork at the Danum Valley Field Centre in Borneo. Working in partnership with Danum Valley Field Centre and with the Eden Project will provide the PhD candidate with an unparalleled student experience. First, they will be prepared for overseas fieldwork within the safety of an indoor rainforest; secondly, working with staff from an internationally renowned research centre and tourist attraction will provide unique benefits not only in terms of the student experience but for the longer term employability of the student.

Details of the supervisory team: Dr Farnon Ellwood is a member of the Royal Society's SEARRP and is highly experienced in studying invertebrate biodiversity in the rainforest of Danum Valley in Borneo. Dr Neil Willey's expertise includes plant physiology and nutrient cycling. Dr Pete Maxfield's scientific interests are linked with developing a mechanistic understanding of carbon storage and carbon flow pathways in both natural and experimentally manipulated ecosystems. Dr Sam Bonnett's expertise covers soil microbial functional diversity involving enzyme kinetic assays, greenhouse gas production and substrate-induced respiration assays (MicroResp(tm)). Dr Don Murray, based at the Eden Project, has expertise in epiphyte population dynamics and tropical taxonomy specialising on epiphytes.

Entry requirements: Applicants must have obtained, or be about to obtain, a First or Upper Second Class UK Honours degree, or the equivalent qualifications gained outside the UK, in Biological Sciences or other relevant subject.

The studentship is only available to UK and other EU nationals.

For enquiries email: farnon.ellwood@uwe.ac.uk and for application forms and further details click on Centre for Research in Biosciences at the following address: <http://www1.uwe.ac.uk/research/postgraduateresearchstudy/studentshipopportunities/hasstudentships2014.aspx> Farnon Ellwood <Farnon.Ellwood@uwe.ac.uk>

UWesternSydney EvolutionEcologyAmbrosiaBeetles

We are seeking a PhD candidate to undertake research on the diversity, ecology and evolution of wood-boring, fungus-cultivating ambrosia beetles in Australia. This role is based at the Hawkesbury Institute for the Environment, University of Western Sydney, and is linked to a project co-funded by the Australian Biological Resources Study.

Bark and wood-boring beetles have been recognised as a significant challenge to forests internationally, in particular as this group includes many invasives, some of which can transmit devastating tree pathogens.

Australia is home to a significant and unique diversity of ambrosia beetles, including the world's only documented eusocial beetle as well as several species that inhabit living trees (a more derived characteristic that involves dealing with tree responses without killing a tree), yet their overall diversity and evolutionary ecology remains unknown. Understanding the group's systematics, co-evolution with microbes, host-tree associations and community dynamics, in the context of a changing climate and potentially vulnerable plantation and native timber assets in Australia is the overarching goal of the project.

The successful PhD candidate will undertake a research program in alignment with our project to investigate the diversity and ecology of Australian ambrosia beetles and their fascinating interactions with microbial symbionts. The approach will involve field surveys, microbial assays, high-tech morphological sys-

tematics, landscape genetic analyses and/or phylogenetics. There will be opportunities for professional development, travel and interaction with an international team of researchers (including collaborators from University of Florida, University of Pretoria, and University of Natural Resources and Life Sciences, Vienna). The student will be supervised by Dr Markus Riegler and Dr Shannon Smith and will benefit from access to exceptional entomological and molecular facilities at the Hawkesbury Institute for the Environment at the University of Western Sydney. The candidate will also have a strong interdisciplinary team at the HIE available for consultation, including experts in plant, fungal and insect science, microbial ecology and environmental genomics.

CRITERIA: The successful applicant should: - demonstrate excellent academic performance related to the research proposed. - hold qualifications and experience equal to an Australian First Class Bachelor Honours degree, Research Masters, or Masters coursework degree with greater than 25% research. - be enthusiastic and highly motivated to undertake further study at an advanced level. - have a background including at least one of molecular ecology, microbiology and entomology and have experience and knowledge or familiarity in DNA-based or other taxonomic techniques.

As the project will involve fieldwork candidates must demonstrate the ability to organise and work independently. International applicants must also demonstrate a high level of proficiency in English.

The PhD candidate is anticipated to commence in mid to late 2014.

WHAT DOES THE SCHOLARSHIP PROVIDE? The scholarship recipient will receive a tax free stipend of \$30,392 per annum and a funded place in the doctoral degree (for domestic students) while enrolment fees may be waived for international students with a strong track record. Further funding is available for project costs and conference travel.

NEED MORE INFORMATION? Applicants can discuss their eligibility and interests with Dr Markus Riegler on m.riegler@uws.edu.au or + 61 2 4570 1229

HOW TO APPLY? Please submit an application form (can be downloaded from the link below), a curriculum vitae that details education, work experience, and scholarly accomplishments, including the names and contact information for at least two academic referees, and one-page statement of how your training, research interests and career goals align with the project.

CLOSING DATE: 20 JUNE 2014

http://www.uws.edu.au/hie/opportunities/-fungal_farms_in_australian_trees

Dr Markus Riegler
Hawkesbury Institute for the Environment
University of Western Sydney Locked Bag 1797,
Penrith NSW 2751, Australia
phone: +61-2-4570 1229
email: m.riegler@uws.edu.au
web: <http://www.uws.edu.au/-hie/markusriegler>
M.Riegler@uws.edu.au

UppsalaU EvolutionaryTheory

A 4-year Ph.D. position in evolutionary theory is available in the research group of Dr. Claus Rueffler at the Evolutionary Biology Centre (<http://www.ebc.uu.se/>) in Uppsala, Sweden. Starting date 1st of September 2014, or as agreed upon.

Project: Potential projects include: (i) How do ecological and developmental factors affect the potential for division of labor among individuals within groups and among parts within an individual? (ii) How does organismal and environmental complexity affect the potential for the adaptive evolution of biological diversity?

Detailed research plans will be developed in collaboration with the successful candidate, and tailored to match her/his individual interests and strengths.

Qualification: Potential candidates have one of the following backgrounds: (a) a master degree (or your national equivalent) in evolutionary biology with a strong interest in theoretical approaches and a serious willingness to develop their mathematical skills, (b) a master degree in mathematics, theoretical physics or computer science with a serious interest in evolutionary biology. Proficiency in English is a requirement.

Duties: The postgraduate training comprises four years of full time studies. The successful candidate will receive a PhD position, which entitles the holder to full social benefits. The position can be combined with up to 20% of teaching assistantship, which will then prolong the position accordingly.

The environment: The Evolutionary Biology Centre (EBC, <http://www.ebc.uu.se/>) is one of the world's leading research institutions in evolutionary biology. The working atmosphere is truly international with a regular recruitment of PhD students and post-docs from abroad. The EBC is part of Uppsala University - the oldest university in Scandinavia - which has approximately 40.000 students and has been top ranked among European Universities in the subject of biology (CHE

European ranking). Our lab is part of the Department of Ecology and Genetics (<http://www.ebc.uu.se/Research/IEG/>) that excels in many aspects of ecology, genetics and evolution and offers an inspiring international atmosphere. Uppsala University also hosts the Center of Interdisciplinary Mathematics (<http://www.math.uu.se/CIM>) that supports research in several areas of biomathematics. The city of Uppsala is a vibrant college town less than an hour's train ride away from Stockholm (and even closer to the Arlanda international airport) with beautiful and easy accessible surroundings.

How to apply: The application should include (1) a letter describing your research interests and motivation for PhD studies, (2) a short description of your education, research interests and research experience, (3) a CV and (4) the names and contact information (address, e-mail address, and phone number) of two reference persons. Furthermore, the application should include (5) an authorized copy of your MSc degree (if already available at time of application) and (6) relevant publications (including MSc thesis). The application must be written in English.

You are welcome to submit your application no later than June 30, 2014. Use the link below to access the application form: <http://www.uu.se/en/jobs/jobs-detail-page/?positionId=3D38367> Feel free to address informal inquiries to Claus Rueffler ([claus.rueffler\[at\]ebc.uu.se](mailto:claus.rueffler@ebc.uu.se)).

Claus Rueffler Associate Professor

Department of Animal Ecology Evolutionary Biology
Centre Uppsala University Norbyvägen 18D 752 36 Uppsala Sweden

Phone: +46-(0)18-471 2639

claus.rueffler@ebc.uu.se

Zurich Evolutionary Ecology

The Department of Aquatic Ecology at EAWAG seeks to recruit a: PhD student in Evolutionary Ecology

The PhD student will be funded by a Swiss National Science Foundation grant, entitled "The eco-evolutionary dynamics of community assembly in aquatic ecosystems". The aim of the project is to understand how ecological and evolutionary processes jointly drive community assembly in aquatic ecosystems. The project involves a combination large-scale

experiments that manipulate the ecological and evolutionary diversity of food webs under contrasting environmental conditions, as well as the analysis of existing long-term datasets of plankton biodiversity dynamics in freshwater lakes. The project is broadly focused on aquatic food webs, including microbial, phytoplankton, zooplankton, and fish communities. Ultimately, the research addresses fundamental links between the ecology and evolution of food webs and the physical environment and biogeochemistry of ecosystems.

We are looking for a self-directed and motivated student with a broad interest in ecology, evolution, and/or ecosystem science. Ideally, the student will be interested in fieldwork, food-web experiments, analysis of biodiversity datasets, and molecular ecology.

Eawag is an international research institute, and is closely affiliated with top universities that grant PhD degrees, such as ETH-Zurich. The working language of the department is English. We offer a stimulating research environment in the Aquatic Ecology department, which has locations in Dübendorf (near Zurich) and Kastanienbaum (near Lucerne). Located on the shores of Lake Lucerne, Eawag's Center for Ecology, Evolution & Biogeochemistry (CEEB: <http://www.eawag.ch/forschung/cc/ceeb/index.EN>) is a strong nucleus of Eawag research groups aimed at integrating evolutionary biology, community ecology, and ecosystem science. At both locations, the student will interact with a diverse range of researchers studying community ecology, evolutionary biology, ecological genetics, ecosystem science, and applied environmental science. The project will also involve collaborations between researchers at Eawag (Dr. Blake Matthews, Dr. Helmut Bürgmann) and the University of Geneva (Dr. Bas Ibelings)

The starting date for the PhD student is flexible, but a starting date in 2014 is preferred. The PhD program at ETH-Zurich generally lasts three years. Applications should include a cover letter, a curriculum vita, and three references. Copies of prior publications or theses will also be considered if made available via PDF. Applications must be submitted by 15 June 2014.

We look forward to receiving your application through this webpage, any other way of applying will not be considered. Please click on the link below, this will take you directly to the application form. <http://internet1.refine.ch/673277/-0273/++publications++/1/index.html> For further information, consult: <http://homepages.eawag.ch/~matthebl/Welcome.html> or directly contact Dr. Blake Matthews: Tel: +41 58 765 2120, E-mail: blake.matthews@eawag.ch

Blake.Matthews@eawag.ch

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AMNH NewYork CollectionAssistant

The American Museum of Natural History (AMNH) houses one of the world's largest collections of biodiversity, including over 32 million biological specimens and 4 million fossils. The Division of Invertebrate Zoology is conducting a search for a Scientific Assistant to assist the continued growth and management of the collections and associated resources (archives, databases, and tissues) of Arachnida (excluding spiders) and Myriapoda. The Division contains the second-largest collection of scorpions, the largest collection of minor arachnid orders, and one of the largest collections of myriapods, in North America, including a worldwide representation of taxa, with a strong emphasis on material from Africa, North America and elsewhere in the New World. The majority of specimens are preserved in

ethanol, although large slide-mounted and frozen tissue collections are also represented.

Duties: The successful applicant will assist the curator in management of the collections including specimen sorting, labeling, preparation, accessioning and databasing new acquisitions; systematic arrangement, storage and organization of the collection; conservation (ethanol levels, pH, rehydration, label integrity, rehousing into better containers, etc.); routine collections tasks (assistance to visitors, response to requests for information, retrieving, packing and shipping loans to other institutions, unpacking and curating loan returns and donations to AMNH, databasing accessions, loan and visitor activity); museum and local community service (collection tours and related activities); training and supervision of students and volunteers; management of frozen tissues and associated data.

Qualifications: BS in Biology, Zoology or Entomology. Candidates with general knowledge of terrestrial arthropod (preferably arachnid and/or myriapod)

morphology and systematics, good organizational skills and attention to details, and a good command of MS Word and Excel are preferred, with more experienced databasing ability desirable.

For more information or to apply for this position please visit the following link:

https://careers.amnh.org/applicants/jsp/shared/-position/JobDetails_css.jsp Edward F. Gaughan
Division Administrator Division of Invertebrate
Zoology Phone: 212-769-5601 Fax: 212-769-5277

Edward Gaughan <egaughan@amnh.org>

CDC Atlanta Bioinformatics

Project description: Develop a comprehensive software system that integrates multiple bioinformatics tools for the analysis and visualization of transmission networks, including development of methods to improve integration, analysis, and interpretation of phylogenetic, network, and epidemiologic, clinical and antimicrobial treatment data. When possible, this approach will utilize existing individual software programs and bioinformatics tools that are free and open source. The developed methods will use the rich metadata available from various studies and allow for searching and filtering sequences and metadata by specific characteristics, risk groups, and antimicrobial treatments. These new tools will help identify meaningful cluster characteristics and trends in subgroups at local and national levels. This work will provide CDC with a better understanding of pathogen transmission in communities and will better utilize resources to target specific prevention efforts. The new tools will also facilitate providing data and results back to state and local health departments for use in additional investigations and to guide local prevention efforts. **Desired Skills and Qualifications:** BS, MS or PhD degree in an area of computational or life sciences with at least two years programming experience, including bioinformatics. The fellow should be familiar with molecular and public health epidemiology and analysis of genetic sequence data, including phylogenetic and network analyses. The fellow should have experience with data manipulation and development of software utilizing various programming languages, including Java, Linux, Perl/Python, C++, and be willing to learn additional programming languages as necessary. Experience with relational databases (MySQL, Oracle or PostgreSQL). Experience manipulating, an-

alyzing, and annotating very large biological sequence data sets, both in exploratory and pipelined fashions. The fellow should be highly capable of working collaboratively with an interdisciplinary team, including laboratory scientists, epidemiologists, bioinformaticians, statisticians, and data analysts, and have strong written and verbal communication skills. Must be self-motivated, work independently in a team environment, and be able to multi-task. The fellow is expected to comply with DHAP and HHS policies and procedures for the handling of human subject's data.

The potential applicants can contact me directly.

William M. Switzer, MPH Retrovirus Surveillance Activity Leader Laboratory Branch Division of HIV/AIDS Prevention Centers for Disease Control and Prevention 1600 Clifton Rd., MS G-45 Atlanta, GA 30329 404-639-0219, 404-639-1174 (FAX) Email: bis3@cdc.gov

“Switzer, Bill (CDC/OID/NCHHSTP)”
<bis3@cdc.gov>

CardiffU EvolutionaryBiol

On behalf of friend Prof. Eshwar Mahenthiralingam, to whom queries might be directed (contact info below):

Lecturer / Senior Lecturer (3 posts) Cardiff School of Biosciences

Up to three positions are available for Lecturer or Senior Lecturer at Cardiff School of Biosciences.

The successful candidates will conduct high-quality research and deliver research-led teaching, thus contribute to the overall internationally-recognised performance of the School and its Research Institutes.

Candidates should have a proven portfolio of research and/or relevant experience within the field of biosciences plus teaching experience at undergraduate/postgraduate level.

These positions are full-time and open-ended, available immediately.

Salary:

£30,728 - £36,661 per annum (Grade 6) £38,907 - £45,053 per annum (Grade 7) £46,400 - £53,765 per annum (Grade 8)

See below for full job description and person specification.

Date advert Posted: Thursday 15 May 2014

Closing date: Friday 30 May 2014

Eshwar Mahenthiralingam Professor of Molecular Microbiology, Organisms and Environment Division, Cardiff School of Biosciences, Cardiff University, Main Building, Room 0.23, Museum Avenue, Cardiff, Wales, United Kingdom, CF10 3AT Tel. +44 (0)29 20875875 Mobile 07850 949521 Fax. +44 (0)29 20874305 email: MahenthiralingamE@cardiff.ac.uk

Sincerely,

Vaughn

Vaughn Cooper, Ph.D. Associate Professor of Microbiology and Genetics Dept of MCBS 212 Rudman Hall University of New Hampshire, Durham NH 03824
vaughn.cooper@unh.edu <http://micropopbio.org/-cooperlab> Vaughn.Cooper@unh.edu

ClarkU Instructor MarineEvolution

CLARK UNIVERSITY Part-time faculty member to teach courses in Marine Biology, Ecology and Topics in Marine Biology

The Biology Department seeks a part-time instructor for the 2014-2015 academic year to teach three courses: Marine Biology (BIOL 114), Ecology (BIOL 216), and Topics in Marine Biology (BIOL 223). These courses primarily serve students in Biology and Environmental Science. Marine Biology is offered in Fall 2014 and meets TR 10:25-11:40 with afternoon and evening labs on Thursday and two weekend field trips. Ecology is offered in Spring 2015 and meets TR 10:25-11:40 with afternoon and evening labs on Thursday. Experienced TAs will participate in labs. Topics in Marine Biology has not been scheduled and is a hybrid seminar/lecture course. Syllabi for current editions of these courses are available on request. The Fall semester begins Aug. 25 and ends Dec. 8, followed by an exam period that ends Dec. 16. Spring classes run Jan. 12 to Apr. 27, followed by exams ending May 5.

For further information, please contact: Susan Foster, Chair Biology Department Clark University 950 Main St Worcester, MA 01610-1477 508-793-7204 sfoster@clarku.edu

NMeyer@clarku.edu

DukeU LabTechnician

Molecular Biology Technician, Tung Lab at Duke University

An Associate in Research/Laboratory Research Analyst position available, starting immediately, in the Tung lab at Duke University. The Tung lab studies the relationship between behavior, the social environment, and genetics and genomics, with a focus on nonhuman primate populations. We combine detailed phenotypic and demographic information with modern genomic data sets on gene regulation and epigenetics. Current projects focus on the gene regulatory mechanisms linking social adversity and health in rhesus macaques, the epigenetic signature of early life ecological and social adversity, and the genomic and phenotypic consequences of hybridization in wild baboons. Duties will include performance of basic molecular biology laboratory techniques, including DNA and RNA sample extraction and sample preparation for high-throughput sequencing, and responsibility for day-to-day logistics, including purchasing, shipping and receiving, and working with trainees in the lab.

Important skills/traits include: aseptic technique, molecular techniques, attention to detail, ability to work independently, careful record keeping.

Requirements: bachelor's degree, 1 V 2 years experience in a research laboratory (not just a lab class), familiarity with fundamentals of molecular biology.

Position is for 40 hrs/week, and will last 12 months, with the possibility of renewal contingent on performance and availability of funding.

For more information about the lab and our work, see <http://people.duke.edu/~jt5/tunglab/home.html> If interested, email resume, including contact information for two references, to Shauna Morrow, smorrow@duke.edu

Duke University is an Equal Opportunity/Affirmative Action/ADA Employer.

Jenny Tung Assistant Professor Department of Evolutionary Anthropology and Duke Population Research Institute jt5@duke.edu 919-668-4912

Jenny Tung <jt5@duke.edu>

ImperialC London 3 ClimateChangeAdaptation

Lecturer in Climate Change and the Environment (3 Posts) Grantham Institute for Climate Change, Imperial College London

As part of Imperials expansion of the Grantham Institute, three lectureships are available to drive new activities in climate change and the environment. During the initial three-years the lectureships will be based at the Grantham Institute in order to focus on the development of novel Postgraduate Programmes and to build effective relations with a variety of external organisations. Thereafter, the positions will formally transfer to an appropriate academic Department where the activities can be developed further while maintaining collaboration with the Institute.

You will have both excellent records in research and a proven ability to communicate their interests at multiple levels. In particular, we welcome applications from those working at key disciplinary interfaces relating to both the understanding of, and responses to climate change and the environment.

You will have environment-related expertise in areas including Business and Economics, Public Health, Natural Sciences, Mathematics and Engineering, complementary to our existing strengths. You will have a good honours degree and a doctorate or equivalent, demonstrating effectiveness at working at a multidisciplinary interface of the climate change/environment debate, and a growing international reputation for research and innovation in an area of climate or environmental activity within the Colleges remit, supported by evidence of publishing and dissemination of research findings at an international level. You must have experience of planning and undertaking effective collaboration with external partners, and of attracting research funding and/or bids for other financial support, or equivalent measure of impact. You will have a broad knowledge of global climate and environmental issues, and an awareness of government and business interests in them having provided expert advice. Experience and demonstrated success in delivering teaching is essential. In order to succeed in these roles you will have the understanding and vision required to contribute to the setting and delivery of strategic goals, and a personal commitment to the vision and values of the College,

including high quality teaching and research. You will have excellent interpersonal and communications skills with an ability to present material in an enthusiastic and motivating way.

Imperial Managers lead by example.

Committed to equality and valuing diversity. We are also an Athena SWAN Silver Award winner, a Stonewall Diversity Champion and a Two Ticks Employer.

Closing Date: 9 June 2014 (midnight BST)

Interviews will be held in the weeks of 16 and 23 June 2014.

How To Apply: Applications should be made by submitting the completed Lecturer and Senior Lecturer (Clinical and Non-Clinical and Recruitment monitoring form, along with any other relevant supporting documents such as your full CV, via email to Ms Angela Kehoe, Senior HR Manager, Telephone: 00 44 (0) 20 7594 5653, e-mail: a.kehoe@imperial.ac.uk, quoting reference number NS2014096NT.

Research application form Should you have any queries please contact: Professor Jo Haigh (j.haigh@imperial.ac.uk) or Professor Martin Siegert (m.siegert@imperial.ac.uk)

Application forms, Job Description and Person Specification: Job description and person specification available from Imperial iRecruitment website quoting reference NS2014096NT

Prof. Vincent Savolainen Deputy Head, Department of Life Sciences Imperial College London, Silwood Park Campus Buckhurst Road, SL5 7PY Ascot, Berks, UK Tel: +44 (0)20 7594 2374 Fax: +44 (0)20 7594 2339 v.savolainen@imperial.ac.uk skype vincent.savolainen1 www3.imperial.ac.uk/people/v.savolainen

“Savolainen, Vincent” <v.savolainen@imperial.ac.uk>

MacquarieU Sydney Conservation

Lecturer/Senior Lecturer in Biological Sciences (Conservation Biology)

<http://jobs.mq.edu.au/cw/en/job/494268/-lecturersenior-lecturer-in-biological-sciences-conservation-biology> We are seeking to appoint a dynamic and enthusiastic individual wishing to develop a distinguished academic career. This position

is an exciting opportunity to develop a world-class research program in conservation biology that draws strength from the department's excellence in integrative biology.

Modern conservation biology at the community or the species level integrates a broad range of disciplines, from population dynamics and demographic modelling, community ecology and trophic interactions, through restoration ecology to land/seascape genetics and application of modern genomic methods. We encourage applicants from any of these disciplines to apply.

The Department of Biological Sciences at Macquarie University is a leading research and teaching department set in beautiful grounds in Sydney, Australia. We conduct research at all levels of biological organisation in a diversity of taxa. For more information please visit <http://bio.mq.edu.au/> The successful candidate will:

Develop and lead a research program in conservation biology
Develop internal and external collaborations
Apply for and attract external funds
Strive for teaching excellence at the undergraduate and postgraduate level (postgraduate course-work or supervision)
Contribute to the full range of departmental activities

Level B - Essential Selection Criteria relative to opportunity:

Demonstrated potential of research excellence in conservation biology
Demonstrated potential in attracting external funds
Demonstrated potential in developing and delivering teaching material
Excellent written and verbal communication skills
An interest in building collaborations within and outside the department
An interest in or demonstrated ability in delivering teaching excellence

Level C - additional selection criteria relative to opportunity:

A proven record of research excellence in conservation biology
A proven record in attracting external funds
A proven record in developing and delivering teaching material
Salary Package:

Level B from \$88,741 - \$104,996 p.a.

Level C from \$108,354 - \$124,607 p.a.

plus 17% employer's superannuation and annual leave loading.

Appointment Type: Full-time, Continuing

Enquiries: Head of Department and Professor, Marie Herberstein on marie.herberstein@mq.edu.au or (02) 9850 6276

Applications Close: Sunday 15 June 2014 at 11.55 pm

Macquarie University is an Equal Opportunity Employer committed to diversity and social inclusion. Applications are encouraged from people with a disability; women (particularly for senior and non-traditional roles); Indigenous Australians, people who identify as GLBTI; and those from culturally and linguistically diverse backgrounds.

Applications need to be submitted through the Macquarie University online recruitment system. Where circumstances such as disability or remote location prohibit your access to our online system please contact the enquiries person listed in this advertisement for assistance.

<http://jobs.mq.edu.au/cw/en/job/494268/-lecturersenior-lecturer-in-biological-sciences-conservation-biology> rob.lanfear@gmail.com

MaxPlanckInstEVA ChimpanzeeFieldSiteManagers DRCandOtherSites

Temporary Field Site Manager Positions for the Pan African Programme: The Cultured Chimpanzee

Job description: The Department of Primatology at the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, is seeking highly motivated site managers to manage a team for the collection, entry, and processing of scientific data as part of the Pan African Great Ape Population Surveillance programme 'The Cultured Chimpanzee'. The project aims to compile a large data set to answer questions about the evolution of tool use, hunting, life history and social organisation in wild chimpanzees with a continent wide approach.

The successful candidates will establish and work at temporary research sites where they will collect detailed data on chimpanzee ecology, tool use and behaviour and collect organic samples for genetic, pathogen, diet and stable isotope analyses. The candidate will be responsible for the installation of remote video cameras and subsequent regular revisits for maintenance and data download. Additionally, data on food availability, prey species, other sympatric wildlife, human impact, and information on additional chimpanzee food sources such as ants, termites, nuts and honey will be collected. The candidates will also collect and store faecal, urine, bone and hair samples, as well as environmental samples for

isotope analysis.

The candidate will be further responsible for data entry, sample storage, preliminary analyses and monthly reporting of progress and results. Finally, the candidate will be responsible for coordination of the project activities for the site, hiring and supervising 2-4 local field assistants, staying within a fixed budget and managing the field site for 12-17 months. There is also the possibility of assisting in managing an existing site for 4-6 months in Cameroon for exceptionally qualified applicants.

The field sites are located in Democratic Republic of Congo, Mali, Cameroon, Ghana, Angola and Côte d'Ivoire. Please indicate the languages in which you are fluent in your cover letter and in your CV.

Positions will begin in September with a 2-week training workshop in Leipzig, Germany, followed by 12 to 17 continuous months at the respective field site (depending on difficulty establishing the site) and finally a 1 to 3 month stay in Leipzig to complete data entry, data backup and sample storage.

For more information see 'Apes in Africa: The cultured chimpanzees' (Nature 476: 266-269, <http://www.nature.com/news/2011/110817/full/476266a.html>) and visit our website: <http://panafrican.eva.mpg.de> Qualifications: The successful candidate should hold an undergraduate or post-graduate degree in biology, physical anthropology or a related field. As field work will be extremely demanding, the successful candidate must be physically and mentally fit, able to spend long periods of time away from developed areas, out of contact with friends/family and be comfortable with minimal living conditions (no plumbing, electricity, or housing) in extremely remote locations. The candidate must be self-sufficient and able to work independently, capable of learning fast and making decisions on his/her own. He/she also needs to be able to work in a team and communicate well with other team members and the project managers at the institute. Field experience (GPS usage, navigation and camping skills, etc.) is mandatory. All candidates need to be proficient with computers, graphics and spreadsheets, and proficiency in written and oral English is necessary. As most of our sites are in French-speaking countries, French is necessary for these countries. Portuguese would also be a benefit to work in Angola. Because many African countries are politically and socially unstable, the candidate must be comfortable with the risks they are taking upon themselves by working in these countries, please consult with your country's travel advisories before applying.

Salary/Funding: 200euro /month, of which 100euro will be paid each month. The remaining amount will be paid following the successful completion of the field data collection.

Support provided: - All travel/transport costs (from home country to Leipzig, Leipzig to field site, return from field site to Leipzig and from Leipzig to home country) will be provided. Half of the cost will be reimbursed on the candidate's arrival at the field site, and the rest on the successful completion of the project. - Accommodation in Leipzig for the duration of the workshop. - Food & accommodation at the field site (housing in established locations or in most cases, tents). - Field survey equipment will be provided.

The candidates are required to arrange and cover the following: - Health insurance that covers emergency repatriation and liability

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NorthCarolina MuseumNS Biodiversity

North Carolina Museum of Natural Sciences: Assistant Director, Biodiversity Research Lab

Division Information: This position is located in Raleigh, North Carolina at the NC Museum of Natural Sciences, an award-winning major institution with a prominent State-wide, national and international profile. This key position works in the Biodiversity Research Laboratory, a unit within the Museum's Research & Collections section.

Description of Work: The goal of this position is to develop a research and science communication program in a biodiversity-related field. This position has three primary areas of responsibility: 1. Development of original scientific research programs in biodiversity, animal movement, spatial ecology, urban ecology, or related fields; research programs may have local, regional, and/or international focus and will include pursuit of external research funding, data generation and analyses, and publication/dissemination of results; some aspects of this research should be suitable for display in

the Biodiversity Lab (which is on-exhibit at the Museum) and, ideally will include collaborations with local universities and citizen scientists. 2. Operational management and administration of the Biodiversity Research Laboratory in the Nature Research Center wing of the NC Museum of Natural Sciences, including supervision of laboratory with oversight of equipment, budgets, personnel, research programs, and volunteer programs. 3. Participation in science communication initiatives, including participation in Museum educational programming, delivering public science-based presentations, interacting with Museum visitors, serving as a role model for students and citizen scientists, and creating programmatic themes that raise the science literacy of visitors.

Applications due: May 31, 2014

For more information and application instructions, please see: <http://tinyurl.com/kodm4ye> Jason R. Cryan, Ph.D. Deputy Museum Director, Research & Collections North Carolina Museum of Natural Sciences 11 W. Jones Street Raleigh, NC 27601

Phone: (919) 707-9933 Fax: (919) 715-2614
email: jason.cryan@naturalsciences.org Museum
Website: www.naturalsciences.org Research Website: www.planthopper.com "Cryan, Jason R" <Jason.Cryan@naturalsciences.org>

PioneerHiBred AppliedBreeding

Research Scientist (RES00002219) Johnston, IA

The Crop Genetics Research & Development (CGR&D) group at Pioneer Hi-Bred International, Inc. integrates cutting-edge science and technology into innovative products that help feed and fuel the world. The Breeding Technologies (BT) group resides in CGR&D and is responsible for developing and deploying next-generation statistical and numerical methods that integrate, analyze and visualize complex genetic relationships for use in applied plant breeding programs. The advertised job position will support the development and technology transfer of proprietary germplasm characterization and molecular breeding methodology for Pioneer scientists working within Tropical Environments. This position will stay abreast of and help manage Tropical pertinent germplasm characterization and molecular breeding needs and activities. The job position will be based in Johnston, Iowa, however the suc-

cessful candidate will be expected to coordinate and collaborate closely with scientists across the Tropical Business Unit and in Johnston, IA. International travel will be required.

The successful candidate will: Lead interactions with the Pioneer research community focused on Tropical germplasm in order to apply, evaluate, and ultimately enhance novel germplasm characterization and molecular breeding methodology used for genetic signal detection and product performance prediction. The successful candidate will utilize next-generation sequencing information to develop understanding of Pioneer tropical breeding programs to facilitate germplasm utilization. Responsibilities will include: Development and utilization of high-density SNP information for tropical germplasm characterization, analysis of large (phenotypic, marker and pedigree) data sets for method and tool development, organize and summarize key molecular breeding information and results for use across/within Tropical research programs, and develop new or adapt existing methods for Tropical-specific molecular breeding activities. Use theory, simulation, and phenotypic and genomic data collected from active breeding programs to lead investigations for germplasm characterization, genetic signal detection and predictions applied to Tropical research projects. Make recommendations and train scientists working with Tropical material on best practice procedures for the effective use of novel whole genome analyses techniques deployed in the Pioneer marker-based germplasm characterization, genetic evaluation and gene detection information management systems. Ensure that molecular breeding information pertinent to Tropical breeding programs is summarized and effectively organized within our information management systems. Responsibilities will include: defining and managing the introduction of new prototypic tools and methods, ensuring that appropriate improvements and updates to software and analysis methods are implemented in a timely manner within the Pioneer information management production systems, and assisting in the end-user support of information management tools ranging from prototypic through to production.

In addition, the incumbent will: Lead interactions with the Tropical breeding community in order to apply, evaluate or adapt existing genomic tools for germplasm characterization and whole genome analysis methods to new experiments and traits specific to Tropical breeding programs. Assist in the development and deployment of novel germplasm characterization and genetic evaluation and gene detection methods within the BT group that address specific needs relevant to Tropical breeders. Organize and plan germplasm characteriza-

tion and molecular breeding data structures and advise BT scientists and Research Information Management application developers on Tropical pertinent aspects, assuring that Tropical breeders have access to and are using the available tools and methods in the most efficient way. Identify and help to use data analysis tools to meet project goals and timelines, communicate key issues and discoveries appropriately.

Qualifications

PhD in statistics, quantitative genetics, population genetics, plant breeding, animal breeding, or a related field and a minimum of 2 to 4 years of post-doctoral and/or industry experience preferred. Knowledge of the technical aspects of commercial plant breeding programs is a plus but not a requirement. Demonstrated proficiency using Python or similar programming languages to manipulate large datasets. Experience with C++ or C# is an advantage but is not required. Strong background applying and interpreting statistical analysis of large, unbalanced datasets for genetic signal detection. Understanding and experience using statistical software such as SAS, R, and/or ASReml required. Understanding and experience utilizing genomic data to categorize population diversity. Demonstrated ability to work in dynamic scientific

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

SmithsonianCambridge Internship ButterflySpeciation

Internship to study butterfly speciation in the tropics

We are seeking a research intern to work on a project at the Smithsonian Tropical Research Institute (STRI) in Panama from November 2014 for a period of at least one year. The project will focus on speciation in *Heliconius* butterflies (for more information please see <http://heliconius.zoo.cam.ac.uk/>).

The intern will join a vibrant community of scientists studying the origins and maintenance of tropical diversity (see <http://www.stri.si.edu>). In particular, the successful candidate will work closely with members of the McMillan (STRI) and Jiggins groups (Cambridge, UK). The project is based in Gamboa and the intern

will be responsible for managing a project investigating the genetic basis of host use shifts between two sympatric *Heliconius* species. The project involves breeding butterflies, managing crossing experiments and conducting behavioural assays. Applicants must be able to work independently and be committed to spending considerable time in Panama. Knowledge of Spanish would be useful but is not essential.

A stipend of US\$800/month will be provided to cover accommodation and living costs in Panama.

Please send applications, or further questions, to Dr Richard Merrill (r.merrill@zoo.cam.ac.uk) with a CV and the names and contact details of two referees. Please use the subject header: 'PANAMA INTERN' before 1st August 2014.

Dr. Richard Merrill Junior Research Fellow, King's College Department of Zoology | University of Cambridge

Tel: (+44)(0)1223 336644 Mob: (+44)(0)7590 984754 Email: r.merrill@zoo.cam.ac.uk Web: <http://heliconius.zoo.cam.ac.uk/2009/richard-merrill/>
Richard Merrill <r.merrill@zoo.cam.ac.uk>

UBirmingham EnvironmentalGenomics

UNIVERSITY OF BIRMINGHAM – SCHOOL OF BIOSCIENCES Environmental Genome Centre Experimental Officer

Fixed term for 12 months in the first instance, potential for extension Salary is from £28,132 to £38,907

An Experimental Officer (Project Scientist) position is available for experts in Next-Generation-Sequencing, Genomics and ideally Laboratory Automation, who will oversee the day-to-day operations of a new environmental genomics centre at the University of Birmingham, School of Biosciences. We are seeking prospective candidates who have demonstrated skills in molecular biology or biochemistry, project design, data management and analysis.

The successful candidate will work within a vibrant, interdisciplinary, research team that uses high-throughput genomics technologies to study environmental effects on genomic structures and gene functions, and to understand how natural populations adapt to cope with environmental challenges, including chem-

ical contaminants (pollutants) and climate change. Specifically, the Experimental Officer will develop and adapt new techniques in genomics to promote this line of research, allowing the routine processing of thousands of samples for sequencing and gene expression profiling. This job also involves collaborating with investigators, writing laboratory protocols, supervising 4-5 laboratory personnel, contributing to research publication and grant writing efforts, training students and postdocs in molecular biology, genomics, and in operating robots. Strong organizational, record keeping, oral and written communication skills - coupled with the ability to work independently and cooperatively - are required. Overall, the hired applicant will benefit from the academic life of the School and will gain experience at mentoring early career scientists in the lab.

Applicants can hold a PhD in genomics, molecular biology, biochemistry, systems engineering or related disciplines; or have in-depth laboratory experience in performing experiments involving next-generation sequencing, managing and analyzing genomics data.

Post is available NOW

To download the details and submit an electronic application online visit: www.hr.bham.ac.uk/jobs Closing date: 30 June 2014 Reference: 47468

Valuing excellence; sustaining investment

John Colbourne School of Biosciences,
The University of Birmingham Email:
J.K.Colbourne@bham.ac.uk [http://-](http://www.birmingham.ac.uk)
www.birmingham.ac.uk j.k.colbourne@bham.ac.uk

UBristol 2 Teaching Evolution

University of Bristol - School of Biological Sciences:
Teaching Assistants in Genetics, Evolution and Ecology (2 Posts)

The School of Biological Sciences are seeking to appoint two Teaching Assistants to provide cover for staff on research sabbaticals between September 2014 and June 2015 inclusive. These are exciting opportunities for individuals with the appropriate skill set and experience to teach subject specific units to undergraduate students.

Post One: You will be responsible for teaching undergraduate students covering: Crop Genetics, Plant Disease, Agricultural Biology

Post Two You will be responsible for teaching undergraduate students covering: Evolution and Diversity of Invertebrates and Vertebrates, Evolutionary Ecology, Marine Ecology

Closing date 05/06/2014. Job number: ACAD100829. Salary: £30,728 - £34,565. Expected Start Date: 01/09/2014. Expected End Date: 30/06/2015.

For informal enquiries please contact Wendy Gibson, Director of Undergraduate Studies: W.Gibson@bristol.ac.uk

Dr Martin Genner

School of Biological Sciences, University of Bristol, Bristol, BS8 1UG, United Kingdom

Email: m.genner@bristol.ac.uk

M Genner <M.Genner@bristol.ac.uk>

UCalifornia LosAngeles LabTech HerpetologyGenomics

Lab Technician/Manager UCLA Herpetology Genomics

The Shaffer Lab is looking for a full-time technician to join our team to help manage the molecular lab space and work on research projects. Research projects focus on the landscape genetics, phylogeography and phylogenetics of herpetofauna with a special interest in conservation genetics in California.

The ideal candidate will have previous experience with next-generation molecular lab protocols, such as target capture, RAD-seq or whole genome low-coverage sequencing. More importantly the technician should be excited and able to learn new techniques quickly and troubleshoot and optimize current protocols. The technician will be expected to work closely with lab members to organize and manage research projects and perform basic data analysis on next-gen data. Some knowledge or experience with bioinformatics/computational biology, and the ability to learn these skills, is also desirable.

The primary duties of the position include producing genetic data for research projects, general maintenance of lab space, organization of tissue samples and their associated database, and some research and data analysis. We are looking for a highly focused and motivated candidate with excellent organization and communica-

tion skills.

Applications must be submitted through <https://hr.mycareer.ucla.edu>. Job Requisition number is #20344, or simply go to hr.mycareer.ucla.edu/applicants/Central?quickFind=623.

Please include two references with your CV.

Please apply by 2 June 2014 for full consideration. If you have any questions, feel free to contact Genevieve Mount (gmount@ucla.edu) or Brad Shaffer (brad.shaffer@ucla.edu). The job could start immediately, but no later than 1 July 2014.

gmountt@gmail.com

UCalifornia Los Angeles ResAssist DrugResistEvolution

The Yeh lab at UCLA is hiring a research assistant to work on evolution of drug resistance. The ideal candidate would have at least a BA in biology, and basic microbiology and molecular skills. Some computational skills would be useful.

Main duties include conducting microbiology experiments and working closely with grads and undergrads on the research, general lab supply ordering and lab maintenance, assistance with keeping lab biosafety records, and data analysis.

Start date flexible, ideally by July 1 2014.

Please send CV and names/emails of 2 references to: pamelayeh@ucla.edu

“Yeh, Pamela” <pamelayeh@ucla.edu>

UConnecticut EvolutionaryMicrobiologist

Microbiologist University of Connecticut Biotechnology/Bioservices Center Position Summary The University of Connecticut seeks a Microbiologist primarily to serve the University of Connecticut community interested in microbiome analysis and small genome sequencing in the Microbial Analysis, Resources and Services Facility (MARS) of the Biotechnology/Bioservices

Center. The Facility consists of an Illumina MiSeq, an EpMotion5075, QIAgility, QIAxcel, BioMicroLab XL200, a workstation for data analysis and other accessory equipment. The successful candidate will provide consultation to faculty and graduate students on microbiome analysis and genome sequencing, process and analyze samples, teach training courses and have an excellent command of verbal and written communication skills (and use them effectively). Extensive experience is required in the study of microbiomes and use of QIIME or an equivalent bioinformatics package for community analysis. Long-range efforts will be to continue development of microbial analyses to serve a diverse research community.

Minimum Qualifications: Qualified applicants must have either a M.S. or Ph.D. in microbiology or a related area, and experience or the equivalent skills to process microbiome samples and characterize the microbiome using QIIME or an equivalent bioinformatics package. Individuals with a Master’s degree and some experience will be appointed at the Academic Assistant II level. Individuals with a Master’s degree and extensive experience or a Ph.D. will be appointed at the Academic Assistant III level.

Preferred Qualifications: Highly desirable are two or more years post M.S. work experience, experience in sequencing, assembling and annotating bacterial genomes; and a strong background in microbial ecology or microbiome science. Also desirable is an ability to consult with faculty and graduate students, possess excellent verbal and written communication skills, and experience in automated liquid handling systems.

Appointment Terms The appointment will be as an Academic Assistant II or III and is a non-tenure track annual 11-month appointment. Salary will be commensurate with qualifications. After an initial year, candidates with a Ph.D. and a strong publication record may be considered for an Assistant Research Professor position in one of several academic departments. This would provide opportunities for collaborative research activities supported by external grant funding.

To Apply Interested applicants should apply using Academic Jobs Online, <https://academicjobsonline.org/ajo/job/4049>. Please submit the following: a cover letter, curriculum vitae, and a list of three professional references. Additionally, please follow the instructions in Academic Jobs Online to direct three reference writers to submit letters of reference on your behalf. Screening of candidates will begin immediately.

Employment of the successful candidate will be contingent upon the successful completion of a pre-employment criminal background check. For questions

regarding this position, prospective applicants should email david.whall@uconn.edu, University of Connecticut, Biotechnology/Bioservices, Unit 3149, 91 N. Eagleville Road, Storrs, CT 06269-3149. All applications must be submitted by no later than June 20, 2014

This job posting is scheduled to be removed at 11:59 PM eastern on June 20, 2014.

The University of Connecticut encourages applications from under-represented groups, including minorities, women, and people with disabilities. The University of Connecticut is an EEO/AA employer.

“Whall, David” <david.whall@uconn.edu>

UGothenburg ResAssist EvolBiol

Research assistant

Type of employment: Fixed-term employment, 12 months Extent: 100 % Location: Department of Biological and Environmental Sciences, University of Gothenburg, Tjärnö Marine Station (www.bioenv.gu.se) First day of employment: 2014-07-01 or on agreement Reference number: PET 2014/153

The research assistant will assist scientists in ongoing experimental research in evolutionary biology. Tasks may include field sampling, morphometric analysis of specimens, behavioural observations, preparation of DNA samples, culturing of marine invertebrates, data and statistical analyses, and updating and organizing data in simple databases. The research assistant will work in close collaboration with the research leader (Prof. Roger Butlin) and additional researchers and students. The working language is English.

Undergraduate training in evolutionary biology is a requirement. Previous experience of working experimental work is desirable. Good communication abilities in written and spoken English are required qualifications. Skills in planning and organising work, social competence and independence are additional criteria for eligibility.

For further information please contact

Roger Butlin, Guest Professor
Roger.Butlin@bioenv.gu.se

Kerstin Johannesson, Professor Ker-
stin.johannesson@bioenv.gu.se

r.k.butlin@sheffield.ac.uk

UHawaii Hilo PlantGenetics

Dear Brian,

I'd be grateful if you could post the ad below for an Assistant Professor position in the Department of Biology at the University of Hawaii Hilo. The deadline is fast approaching. We welcome applications especially from people working on plants and genetics. The job would entail participation in the Tropical Conservation Biology and Environmental Science Graduate Program as well as the Biology Department. Thank you and aloha, Elizabeth

Title: Assistant Professor (Biology/Cell Biology) Position Number: 0073435 Hiring Unit: College of Arts & Sciences Location: UH Hilo Date Posted: April 23, 2014 Closing Date: May 14, 2014 Salary Information: Commensurate with qualifications and experience. Monthly Type: 9 Month Tenure Track: Tenure Full Time/Part Time: Full Time Temporary/Permanent: Permanent Funding: General Funds

Other Conditions: - Appointment to begin approximately August 2014, pending position clearance and availability of funding.

Duties and Responsibilities 1. Teach undergraduate courses in Cell Biology, Cell and Molecular Biology, and Introductory Biology for majors. Develop an independent research program in area of expertise that is supported by extramural funding; advise students; participate in departmental governance and related University and community service. The University of Hawai'i at Hilo also offers the opportunity for participation in graduate programs. Minimum Qualifications 1. Ph.D. from an accredited college or university in a biological science discipline appropriate to the position, teaching experience in biological sciences, research experience in area of expertise in cell biology, and demonstrated ability to work with students from diverse cultural backgrounds. Desirable Qualifications 1. Demonstrated teaching experience at the college or university level in undergraduate courses in areas related to Cell Biology, Biochemistry, Molecular Biology, and Introductory Biology. Demonstrated record of student advising and training; a successfully funded research program in area of expertise in cell biology, and the ability to develop a research program in the Hawaiian or Pacific region that complements existing department strengths in plant ecology and evolution, with the potential to ob-

tain extramural funding.

To Apply: Submit a cover letter indicating the position title and position number and how you satisfy the minimum and desirable qualifications, a curriculum vitae, academic transcripts, and statements of research and teaching interests. Please note that copies of transcripts are acceptable for application; however, original documents issued by a university registrar are required upon hire. Provide contact information for three (3) references. Electronic submissions are preferred and should be sent to awayaj@hawaii.edu. Applicants who submitted complete application packets (see preceding paragraph) in Spring 2014 for the Assistant Professor of Biology, #82909, will be considered for this current vacancy. These prior applicants need not submit additional documents unless required to do so by the Interview Committee.

Address: 1. Dr. Jonathan Awaya 2. Biology Department 3. University of Hawai'i at Hilo 4. 200 W. Kawili St. 5. Hilo, HI 96720-4091 Inquiries: 1. Dr. Jonathan Awaya; awayaj@hawaii.edu

The University of Hawai'i is an equal opportunity/affirmative action institution and is committed to a policy of nondiscrimination on the basis of race, sex, gender identity and expression, age, religion, color, national origin, ancestry, citizenship, disability, genetic information, marital status, breastfeeding, income assignment for child support, arrest and court record (except as permissible under State law), sexual orientation, domestic or sexual violence victim status, national guard absence, or status as a covered veteran.

Individuals with disabilities who need a reasonable accommodation for the application or hiring process are encouraged to contact the EEO/AA coordinator(s) for the respective campus.

Employment is contingent on satisfying employment eligibility verification requirements of the Immigration Reform and Control Act of 1986; reference checks of previous employers; and for certain positions, criminal history record checks. In accordance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, annual campus crime statistics for the University of Hawaii may be viewed at: <http://ope.ed.gov/security/>, or a paper copy may be obtained upon request from the respective UH Campus Security or Administrative Services Office.

Elizabeth Stacy Associate Professor Biology Department & TCBES Graduate Program University of Hawai'i Hilo 200 West Kawili Street Hilo, HI 96720 Phone: 808-932-7715 Fax: 808-932-7295

estacy@hawaii.edu

UHohenheim Agroecology Biodiversity

The University of Hohenheim (Germany), Faculty of Agricultural Sciences invites applications for the position of a Full Professor (W3) of Agroecology and Biodiversity in the Tropics and Subtropics at the Institute of Plant Production and Agroecology in the Tropics and Subtropics to be filled in summer term 2015.

The successful candidate is expected to conduct innovative experimental and modeling research related to ecology including biodiversity in the context of agricultural production systems in the Tropics and Subtropics. He/she must have an outstanding record of independent research in tropical and subtropical ecosystems as well as evidence of external funding acquisition. The candidate is expected to contribute to the interdisciplinary scientific centers of the University. The candidate should be able to teach both in German and in English in the graduate and post-graduate study programs of the Faculty.

The position offers attractive conditions for first-time full professor appointees. Prerequisites for applicants are habilitation or an equivalent research and teaching record that may have been established during a Junior or Assistant Professorship.

The advertised position is tenured. If appointed as full professor for the first time, the University of Hohenheim reserves its right to a probationary employment. Preference will be given to candidates with disabilities possessing equal qualifications.

The University of Hohenheim seeks to increase the proportion of women in research and teaching, and strongly encourages qualified female scientists to apply.

Applications should be addressed to University of Hohenheim Faculty of Agricultural Sciences (300) 70593 Stuttgart, Germany

Applications can also be submitted via the secure website: [https://www.uni-hohenheim.de/1640?cHash=1f9f34f349ba711f576f8dd543f8f657&tx_unijobs.joboffers\[action\]=new&tx_unijobs.joboffers\[controller\]=Application&tx_unijobs.joboffers\[joboffer\]=51&L=1](https://www.uni-hohenheim.de/1640?cHash=1f9f34f349ba711f576f8dd543f8f657&tx_unijobs.joboffers[action]=new&tx_unijobs.joboffers[controller]=Application&tx_unijobs.joboffers[joboffer]=51&L=1)
Deadline for applications is 14 June 2014

Applications should contain a statement of future research interests, a curriculum vitae, a documentation

of academic achievements (copies), a list of publications, a list of third-party funded projects, a teaching record, information on teaching evaluations as well as a maximum of three key publications.

For further details on this position you can contact the Vice Dean of the Faculty of Agricultural Sciences, Prof. Dr. Joachim Müller, e-mail: joachim.mueller@uni-hohenheim.de

Frank Schurr <frank.schurr@uni-hohenheim.de>

ULincoln EcologyandEvolution

The University of Lincoln opened a School of Life Sciences in 2012 within a College of Science that also contains the Schools of Pharmacy, Engineering, Computer Science and Chemistry and will soon include Mathematics and Physics.

In 2014 we will move to two newly refurbished and equipped science buildings, part of the University's substantial commitment to provide the science infrastructure to match our ambition.

We now wish to recruit to further positions and are seeking a Professor to lead the Evolution and Ecology research group, contributing research expertise and a positive approach to teaching, in areas relevant to existing strengths. Successful candidates will have an international reputation in their field, based on a strong record of research funding and research outputs that consistently reach high levels of excellence.

Academics in Life Sciences (<https://www.lincoln.ac.uk/home/lifesciences/>) are driving forward research in diverse areas within six core research groups. The Evolution and Ecology research group includes an ambitious and excellent team of early career and more experienced staff with interests including sensory biology, macroecology, molecular ecology and palaeontology. Professorial leadership is sought to maximise the potential of this group, and to contribute to our ambition to become a top 40 university.

If you would like to be part of shaping our world-class vision and would like to know more about this opportunity, please contact Dr Libby John, Head of School (01522 88 6808 or ljohn@lincoln.ac.uk) or Professor Daniel Mills, School Director of Research (01522 83 5356 or dmills@lincoln.ac.uk).

More info: <http://jobs.lincoln.ac.uk/-vacancy.aspx?ref=3DCOS075A> Closing Date: Sunday 18 May 2014

Dr Carl Soulsbury Senior Lecturer in Zoology School of Life Sciences University of Lincoln Riseholme Park Lincoln LN2 2LG, UK

<http://www.researcherid.com/rid/F-3137-2010> <http://ulincn.academia.edu/CarlSoulsbury> The University of Lincoln, located in the heart of the city of Lincoln, has established an international reputation based on high student satisfaction, excellent graduate employment and world-class research.

csoulsbury@lincoln.ac.uk

ULondon EvolutionBehaviour

Applications are invited for the following two lectureships at Royal Holloway University of London. Further details of the application process can be found at <https://jobs.royalholloway.ac.uk/-vacancies.aspx?cat=3D923> Lecturer in Animal Behaviour School of Biological Sciences, Royal Holloway University of London Location:

Egham, UK

Salary:

£39,890 to £47,187 per annum - including London Allowance

Closing Date:

Wednesday 28 May 2014

Interview Date:

See advert

Reference:

0414-051

Applications are invited for the post of Lecturer in Animal Behaviour in the School of Biological Sciences.

The School of Biological Sciences is seeking to appoint a lecturer within the Centre for Ecology, Evolution & Behaviour to provide research and teaching duties in animal behaviour and, more widely, in behavioural ecology.

Appointees will be expected to have a proven or developing record of academic achievement in the broad research area of behavioural ecology. You will be edu-

cated to PhD level in a relevant subject or have equivalent relevant experience. We are looking for a candidate with a research portfolio of the highest quality and with the potential to generate lasting impact. While we are particularly interested in research involving pollinator behaviour, candidates with an interest in vertebrate systems or the ability to answer questions at the population or ecosystem level are encouraged to apply. Successful candidates will contribute to teaching in organismal biosciences at undergraduate and post-graduate levels, and will be encouraged to initiate collaborative work with existing staff in the School and with other institutions.

This is a full time and permanent post, available from 1 September 2014 or as soon as possible thereafter. This post is based in Egham, Surrey where the College is situated in a beautiful, leafy campus near to Windsor Great Park and within commuting distance from London.

For an informal discussion about the post, please contact the Head of School, Professor Alan Gange on a.gange@rhul.ac.uk or (0)1784 443188.

Interview Date: We expect to hold interviews in early June 2014

The College is committed to equality and diversity, and encourages applications from all sections of the community. We particularly welcome female applicants as they are under-represented at this level in the School of Biological Sciences within Royal Holloway, University of London.

Lecturer in Evolutionary Biology School of Biological Sciences, Royal Holloway University of London Location:

Egham, UK

Salary:

£39,890 to £47,187 per annum - including London Allowance

Closing Date:

Wednesday 28 May 2014

Interview Date:

See advert

Reference:

0414-052

Applications are invited for the post of Lecturer in Evolutionary Biology in the School of Biological Sciences.

The School of Biological Sciences is seeking to appoint a lecturer within the Centre for Ecology, Evolution &

Behaviour to provide research and teaching duties in the broad area of evolutionary biology.

Appointees will be expected to have a proven or developing record of academic achievement in the broad research area of evolutionary biology. You will be educated to PhD level in a relevant subject or have equivalent relevant experience. We are looking for a candidate with a research portfolio of the highest quality and with the potential to generate lasting impact. We are seeking a candidate who uses molecular techniques to answer questions at the evolutionary level. While we are particularly interested in research involving vertebrate systems, we will appoint on the basis of excellence and all candidates, irrespective of study system, are encouraged to apply. Successful candidates will contribute to teaching in molecular and organismal biosciences at undergraduate and post-graduate levels, and will be encouraged to initiate collaborative work with existing staff in the School and outside institutions.

This is a full time and permanent post, available from 1 September 2014 or as soon as possible thereafter. This post is based in Egham, Surrey where the College is situated in a beautiful, leafy campus near to Windsor Great Park and within commuting distance from London.

For an informal discussion about the post, please contact the Head of School, Professor Alan Gange on a.gange@rhul.ac.uk or (0)1784 443188.

Interview Date: We expect to hold interviews mid-June 2014

The College is committed to equality and diversity, and encourages applications from all sections of the community. We particularly welcome female applicants as they are under-represented at this level in the School of Biological Sciences within Royal Holloway, University of London.

Elli.Leadbeater@rhul.ac.uk

UMiami LabTech YeastEvolution

The Van Dyken lab at the University of Miami in Coral Gables, FL is seeking a Research Technician to begin Fall 2014. My lab studies phenomena at the intersection of evolution, ecology, cell biology and genomics using the budding yeast *Saccharomyces cerevisiae** as a model system. The successful candidate will be responsible for both research and lab management tasks.

Research responsibilities will include strain engineering, running long-term evolution experiments, competition assays, physiological assays, and other general lab tasks. Techniques that will be employed include flow cytometry, robotic liquid handling, genetic engineering (using e.g. standard molecular cloning techniques, CRISPR/Cas9, isothermal assembly), high-throughput assay methods, library preps for genome sequencing, fluorescence microscopy, cell micromanipulation and tetrad dissection. Managerial tasks include training students and postdocs, ordering supplies and maintaining the strain collection.

Related research experience and bachelors degree are required. Prior experience with basic lab techniques such as PCR, gel electrophoresis, and culturing methods is also required. Experience with molecular cloning and strain engineering is highly desirable. The candidate must be highly motivated, task oriented, able to work independently and well with others, and possess good organizational, problem solving, and communication skills. Salary is commensurate with experience.

Individuals from groups underrepresented in STEM fields, including women and underrepresented minorities, are strongly encouraged to apply.

To apply, contact Dr. David Van Dyken at vandyken@fas.harvard.edu with your CV, a brief statement of research experience and interests, and the names and contact info of at least 2 references.

jdavidvd@gmail.com

UNESP Brazil Bioinformatics Evolutionary Genomics

Permanent position opening in Bioinformatics for the study of eukaryotic genomes structural and functional evolution at the University of São Paulo State in São José do Rio Preto.

For more information contact : Prof. Claudia Marcia Carareto (carareto@ibilce.unesp.br)

Alexandre de Kochko <alexandre.dekochko@ird.fr>

UOklahoma Bioinformatics Metagenomics

University of Oklahoma's Laboratories for Molecular Anthropology and Microbiome Research is seeking an Assistant Research Professor | Adjunct Lecturer. Position requires PhD Degree in Biology and 5 years of experience in bioinformatics with experience working in the area of ancient biomolecules, NGS, and metagenomics, with academic publications and teaching experience. Experience with programming and shell scripting languages C++, Perl, R and Python are required. Salary is 75k plus fringe.

Start date: August 2014

Inquiries and applications (CV and three references) directed to Dr. Cecil M. Lewis (cmlewis AT ou.edu) with "Assistant Research Professor | Adjunct Lecturer" in the subject line.

"Lewis, Cecil M. Jr." <cmlewis@ou.edu>

USalford UK Evolutionary Biol

The School of Environment & Life Sciences at Salford University, Manchester, is investing in its expanding profile of research and training in the areas of human health and environment. We are now offering new academic positions, some of which are highly relevant to modern evolutionary biology, such as:

Lecturer in Bioinformatics/Genomics - Salary range: £37,756 - £45,053, see REF: 1410411 Lecturer in Spatial Epidemiology - Salary range: £37,756 - £45,053, see REF: 1409681 Chair in Science Communication & Digital Media - Salary range: Professorial scale, see REF: 1415337

To apply, visit: www.jobs.salford.ac.uk/ Closing date: 8 June 2014 Interviews will take place in the week commencing 23 June 2014.

To discuss these posts informally, please contact Professor Judith Smith, Head of School j.e.smith@salford.ac.uk

S.Mariani@salford.ac.uk

USydney Bioinformatics

Two bioinformatics positions are available the University of Sydney, Australia

BIOINFORMATICS MANAGER DVC RESEARCH REFERENCE NO. 470/0314

Be responsible for the establishment, ongoing development and maintenance of a core bioinformatics infrastructure Help to unify the bioinformatics community at the University of Sydney, Australia Full-time continuing, remuneration package: \$106K-\$120K p.a. which includes leave loading and up to 17% super) CLOSING DATE: 5pm 27 May 2014

More details and application materials at: <http://sydney.nga.net.au/cp/index.cfm?event=-3Djobs.checkJobDetailsNewApplication&returnToEvent=jobs.processJobSearch&jobid=9db42798-8edd-4568-1433-7f9ade582e4b&CurATC=-EXT&CurBID=949319bc-8898-4f11-ac4b-9db401358504&jobsListKey=f3b117c5-90ff-478d-bebd-2a4b4453ab99&persistVariables=-CurATC,CurBID,jobsListKey&lid=90538030008>

BIOINFORMATICS TECHNICIAN DVC RESEARCH REFERENCE NO. 471/0314

Be responsible for delivering advice, services and training Help to unify the bioinformatics community at the University of Sydney, Australia Full-time fixed term for one year with the possibility of extension, remuneration package: \$86K-\$93K p.a. which includes leave loading and up to 17% super) CLOSING DATE: 5pm 27 May 2014

More details and application materials at: <http://sydney.nga.net.au/cp/index.cfm?event=-3Djobs.checkJobDetailsNewApplication&returnToEvent=jobs.processJobSearch&jobid=3687b944-f2a8-1367-c276-7f9ade6d6e3e&CurATC=-EXT&CurBID=949319bc-8898-4f11-ac4b-9db401358504&jobsListKey=df0a22b8-6688-415f-b511-a2c5b751cf23&persistVariables=-CurATC,CurBID,jobsListKey&lid=47128510008>

PROFESSOR EDWARD C. HOLMES NHMRC Australia Fellow

THE UNIVERSITY OF SYDNEY Marie Bashir Institute for Infectious Diseases & Biosecurity, Charles Perkins Centre, School of Biological Sciences and Sydney Medical School, Macleay Building A12 | The Uni-

versity of Sydney | Sydney | NSW | 2006 | Australia T +61 2 9351 5591 F +61 2 9351 3890 E edward.holmes@sydney.edu.au

edward.holmes@sydney.edu.au

UTexas-Austin ResearcherLabManager

RESEARCHER/LAB-MANAGER Purpose of the position: Will provide technical assistance in genetic and genomic analysis of animals, plants, and microorganisms in the lab of Ulrich Mueller, Integrative Biology, University of Texas at Austin, USA. Research integrates evolutionary genomics, molecular ecology, microbiology, behavioral evolution, and plant biology. Essential Functions: Conducts research on genetic/genomics and molecular-ecological analysis of animals, plants and microorganisms. Trains new laboratory personnel on laboratory techniques and laboratory procedures. Required Qualifications: Bachelor's degree in biology. Experience with scientific equipment used in a genetics laboratory. Preferred Qualifications: Experience in genomics, molecular-genetics, or quantitative-genetics of plants or animals. Preference will be given to candidates with some of the following skills: bioinformatics; microbiology; next-gen sequencing; transcriptomics; quantitative genetics. Ability and interest in collaborative work with post-docs, graduate students, and undergraduate researchers.

To apply, please send single pdf-file including resume and contact-information of three referees to:

Prof. Ulrich Mueller, Integrative Biology, University of Texas at Austin;

um Mueller@austin.utexas.edu

leafcutterlab@gmail.com

UWashington ViralEvolutionSocialNetworks

UW.ViralEvolutionSocialNetworks

Programmer/Researcher UW.ViralEvolutionSocialNetworks

The UW Center for Studies in Demography and Ecology (CSDE) and Department of Microbiology have teamed up to provide an outstanding opportunity for a Scientific Programmer/Researcher (Research Scientist/Engineer 3) to integrate within-host models for viral dynamics into social network models for the spread of HIV within populations.

The Programmer/Researcher will do scientific research and computer programming while providing computer support services for project investigators. The research component will involve developing and testing scientific hypotheses related to one or more of the following subject areas: social network modeling; epidemiology; mathematical modeling of population dynamics; evolutionary biology; population genetics; HIV virulence and pathogenesis; and resistance to anti-retroviral drugs. The programming component requires the candidate to construct, test, and maintain programs written in C and R; create detailed documentation; and publish packages on the Comprehensive R Archive Network (CRAN). Interact with multiple scientists with diverse interests and expertise in order to write papers, develop software, and interact with end-users of the integrated software. The programmer/researcher will also present results at scientific meetings and participate in the development of materials for training workshops on the software.

In the initial phases of the project, the Programmer/Researcher will spend most of his or her time working with social scientists at the CSDE. As the project progresses, he or she will spend increasing amounts of time working with biomedical researchers in the Department of Microbiology.

Requirements:

- MS or Ph.D. in a Quantitative Field (e.g., Computer Science, Mathematics, or Statistics) or a Biomedical/Social Science Field that includes significant mathematical and computational components and three to five years' experience .
- Ability to read, analyze and write scientific papers
- Expertise in the R programming language and package development in R.

- Experience with the C programming language.
- Excellent communication skills
- Willingness to write detailed software documentation for end users.
- Has established technical expertise; serves as a resource to research unit/department.

Equivalent education/experience will substitute for all minimum qualifications except when there are legal requirements, such as a license/certification/registration.

To apply, go to <https://uw hires.admin.washington.edu/eng/candidates> and enter requisition number 107046 in the required field. If you have questions about this position, you may contact Josh Herbeck (jherbeck@uw.edu), Steve Goodreau (goodreau@uw.edu), or John Mittler (jmittler@uw.edu).

Joshua Herbeck <herbeck@uw.edu>

Universidade Federal do Ceara Brazil PopGenetics

The Dept. of Biology of the Universidade Federal do Ceará (Fortaleza -Brazil) is looking for a Population Geneticist to fill a junior lecturer position (\$ 43.000 p.a. salary).

More information and application materials at: www.ufc.br or* www.progep.ufc.br < <http://www.progep.ufc.br> >*.

For informal inquiries, please contact: lozannette@gmail.com

Many thanks.

All the best,

Dr. Lorenzo Zanette

Biology Dept. - UFC

Lorenzo Zanette <lozannette@gmail.com>

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ConservationEcol Images

There are now only a few weeks left to enter your images into the BMC Ecology Image Competition 2014!

Full details of the competition can be found here: <http://blogs.biomedcentral.com/bmcblog/2014/02/13/bmc-ecology-launches-its-2014-image-competition/>
The competition is open to everyone affiliated with a research institution. We consider all types of images from photos to data visualizations - and are particularly keen to see creative contributions from theoretical biologists.

Can you come up with a way to visually represent your field of research?

Each entry should be submitted to one of five categories that reflect the editorial sections of the journal, with the winner of each category selected by the one of the journal's academic Section Editors. These categories are:

Behavioural and physiological ecology
Conservation ecology and biodiversity research
Community, population, and macroecology
Landscape ecology and ecosystems
Theoretical ecology and models (including data visualisations)

If you're not sure which category your image fits into - don't worry, we can select one for you.

Winning images will receive a cash prize, and will be published in a special Editorial article in BMC Ecology. You could even be in with a chance to have your image featured in international media outlets such as Scientific American, New Scientist, BBC and The Guardian.

Please note that we can only consider images released under a Creative Commons license in which the author retains copyright but freely allows the images to be shared as long as appropriate credit is given.

To submit your entry, please send your image together with a completed entry form to: bmcecol@biomedcentral.com

We look forward to seeing your images - and good luck!

Kind regards,

Simon Simon Harold PhD Executive Editor BMC Ecology
BioMed Central Floor 6, 236 Gray's Inn Road
London, WC1X 8HL Tel: +44 (0)2031922747 Fax: +44 20 3192 2011 email: editorial@biomedcentral.com
Web: <http://www.biomedcentral.com/bmcecol/> Simon Harold <Simon.Harold@biomedcentral.com>

Drosophila stocks available

****NEW DROSOPHILA STOCKS AVAILABLE FROM THE DROSOPHILA SPECIES STOCK CENTER****

New isofemale lines (available until July 15, 2014):
1. 8 D. melanogaster isofemale lines (14021-0231.199) from Guanajuato, Mexico (March 2014) donated by T. Markow.

2. 12 D. simulans isofemale lines (14021-0251.312) from Guanajuato, Mexico (March 2014) donated by T. Markow.

New genome lines: 1. D. suzukii (14023-0311.03 - requires USDA permit) from Watsonville, California (USA) donated by D. Begun. (Chiu et. al 2013)

2. D. miranda (14011-0101.21) Mount St. Helena, California (USA) donated by the Bachtrog Lab. (Zhou & Bachtrog 2012)

New species: 1. Zaprionus africanus (50002-2754.00) and Z. gabonicus (50002-2755.00) from Gabon donated by J. David

2. *Zaprionus proximus* (50002-2756.00) from Uganda donated by J. David.

3. *Drosophila bocqueti* (14028-0771.00) and *Drosophila burlai* (14028-0781.00) from Cameroon donated by J. David.

4. *Drosophila chauvaca* (14028-0761.00) from Madagascar donated by J. David.

5. *Hirtodrosophila confusa* (90010-0085.00) from Gif-sur-Yvette (France) donated by J. David.

6. *Scaptodrosophila rufifrons* (11040-0071.00) from Sochi (Russia) donated by J. David.

7. *Gitona americana* (70000-3000.00) from San Diego, CA donated by M. Richmond.

For more information visit <https://stockcenter.ucsd.edu/info/welcome.php>, or email mrichmond@ucsd.edu.

Maxi Polihronakis Richmond <mrichmond@ucsd.edu>

ESF TravelGrants ConservationGenetics

TravelGrants - ConservationGenetics

Dear colleagues,

The European Research Networking Programme “ConGenOmics”, supported by the European Science Foundation, invites applications for travel grants intended to foster collaborations between European researchers working on topics related to conservation genomics.

We will support the exchange of researchers, ideally targeting at early careers researchers such as PhD students and postdocs. We invite applications for short visits (up to 2 weeks) or longer exchanges (up to 3 months) to foster scientific interactions between institutions from different countries. The planned visits should be directly relevant to the scope of the ConGenOmics network programme, which include topics such as:

- Development and transfer of genomic knowledge and approaches in a conservation context
- Experimental study of the (genomic) mechanisms behind important biological processes of relevance for conservation
- Application and development of data handling and processing strategies in conservation genomics

- Application of community and metagenomics in conservation biological context

After assessment of scientific merit and relevance to the ConGenOmics network, priority will be given to applications in the following order:

- knowledge exchange between contributing countries of the ESF ConGenOmics network

- knowledge exchange between a contributing country and a non-contributing ESF member country or the associated USA Ecogenomics network Ecological Genomics Institute (EGI) at Kansas State University (KSU)

- knowledge exchange between a contributing country and a non-ESF member country in Europe

- knowledge exchange between a contributing country and any country not covered by 1-3

(Researchers from countries with ESF Observer status not contributing to the ConGenOmics network are considered non-ESF)

**Contributing member countries are: Belgium, Denmark, Finland, Germany, Greece, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden and Switzerland.

Further information and instructions on how to apply are available at

<http://www.ru.nl/congenomics/grants-application/-travel-grants/> Deadline for submission: 1 June 2014

philippine.vergeer@wur.nl

EthidiumBromide alternative answers

Dear EvoDir members:

Please, find here below a summary of the answers I got from all of you about question on DNA stain.

Thank you very much for your very useful suggestions!

Cheers,

Filippo

—

1. The idea that Ethidium bromide is dangerous, especially at the quantities used to stain gels, is probably false, and is certainly not based on sound mechanism

nor strong epidemiological evidence. The article below is very interesting: <http://goo.gl/AJKSup> For staining DNA on agarose, our labs use Gel red which is no where as toxic as ethidium bromide http://www.bioscience.co.uk/site/user/page.phtml?page_id=22&search=gel+red&productgrp=OTHER&sid=tgtk74337

Did you try SYBR Safe from Invitrogen? We have been using it for the past 9 months now and it is really reliable (we have even reduced the concentration by half).

4. We use a product called Gel Red. It works well. Not sure who would carry it in Europe, but VWR carries it in the states: <http://biotium.com/technology/gelred-gelgreen-nucleic-acid-gel-stains/> 5. Maybe GelRed could help you (<http://biotium.com/technology/gelred-gelgreen-nucleic-acid-gel-stains/>). During my last internship, I used it. It is supposed to be non-toxic, but my supervisor was not sure that degradation products were non-toxic.

Have you tried RedSafe? Here is as example: http://www.chembio.co.uk/product_detail.php?product_id0

We use Midori green it's just as good if not better than ethidium bromide and less toxic.

You may find this blog post helpful: <http://rrresearch.fieldofscience.com/2006/10/heresy-about-ethidium-bromide.html>

9. We use GelRed from Biotium. It is quite bright and works with the same filters as ethidium bromide.

10. We use EZ-Vision: <http://www.amresco-inc.com/home/products/best-sellers/EZ-Vision.cmsx>

I have been using a product called SafeView by NBS biologicals: <http://www.nbsbio.co.uk/nbs-sv1> 12. In our population genetics lab, we use a product called GelRed, manufactured by Biotium. It gives us very good results. Bands are easily visible on the 1% and 2% agarose gels we use. We use the standard safety and handling procedures as those with ethidium bromide (gloves, gelred only glassware, contamination area, etc), but it is reported to be non-toxic and non-mutagenic. I hope this helps!

I use EZ-vision by Amresco. The RNA version also works.

We use SafeView (www.nbsbio.co.uk/nbs-sv1) and have never had any problems!

My lab uses SYBR Safe with a Blue-Light source. It works nearly as well as Ethidium and is much safer: <http://www.lifetechnologies.com/us/en/home/life-science/dna-rna-purification-analysis/nucleic-acid-gel-electrophoresis/dna-stains/sybr-safe.html>

16. We use SybrSafe - it works nearly as well as

EtBr: <http://www.lifetechnologies.com/us/en/home/life-science/dna-rna-purification-analysis/nucleic-acid-gel-electrophoresis/dna-stains/sybr-safe.html>

Try Nancy-520 from Sigma: <http://www.sigmaaldrich.com/life-science/cell-biology/detection/learning-center/nancy-520.html>

Nancy seems like a nice alternative to SYBR and ethidium bromide, but I've never used it.

We've had success with SYBR Safe DNA gel stain for >7 years in the Johnson Lab, and, given it produces comparable results while being much safer than ethidium bromide, several other labs use it here on campus at BYU. If there is a chance you could stick with SYBR, maybe you could explain the problem in further detail, and then people could help you arrive at a solution with SYBR. So far, it remains unclear why these other options haven't worked for you.

We use a product called GelRed from Biotium. It works quite well as an "in-gel" or "post-gel" stain. <http://biotium.com/technology/gelred-gelgreen-nucleic-acid-gel-stains/>

We use the GelRed Nucleic Acid Gel Stain from Biotium (<http://biotium.com/product/gelredtm-nucleic-acid-gel-stain-10000x-in-water/>) and we have satisfactory results. Here is our protocol:

Mix 1

4 mg of BFB (Bromophenol blue)

1 ml of mili-Q Water

Mix 2

174 ul of Mix 1

250 ul of glycerol

576 ul of mili-Q Water

Loading Solution

1 ul of GEL RED

999 ul of Mix 2

— / —

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

Evolution video 3 weeks left

Three weeks left to enter your evolution-themed video for screening at Evolution 2014!

Scientists and science communicators of all stripes are invited to enter the fourth annual NESCent Evolution Video Competition. To enter, please submit a video that explains a fun fact, key concept, compelling question, or exciting area of evolution research in three minutes or less. Entries may be related or unrelated to your own research, and should be suitable for use in a classroom (K-12, undergraduate, graduate...your choice). Animations, music videos, and mini documentaries are all fair game. The finalists will be screened at the Evolution 2014 conference in Raleigh, NC < <http://evolution2014.org/> >. You don't need to attend the conference to enter. The first- and second-place winners will receive travel awards to attend the scientific meeting of their choice. All videos submitted by May 31 are eligible to win.

For more information visit filmfestival.nescent.org/

Robin Smith <ras10@duke.edu>

FalklandIslands VolFieldAssist MarineLife

VOLUNTEERS FIELD HELPERS RECRUITMENT

PROJECT: Long term study of southern elephant seals and killer whales behavioral ecology

WEB SITE: www.eleseal.org **POSITION:** Volunteer (unpaid) field helper

DURATION: 3 to 6 months, early September 2014 to early March 2015

LOCATION: Sea Lion Island, Falkland Islands, Southern Atlantic

DUTIES:

- Elephant seals: counts, marking, GIS data collection, observation of behavior, pup handling, collection of samples

- Killer whales: counts, photoidentification, observation and videotaping of behavior, necropsies of preys

DEADLINE: May 31, 2014; please note that, capabilities being equal, positions will be allocated with a first come first served policy

Volunteer field helpers are required for the 2014-2015 field season of a long term project on southern ele-

phant seals (*Mirounga leonina*) and killer whales (*Orcinus orca*) carried out by the Elephant Seal Research Group. The field work site is Sea Lion Island (Falkland Islands).

Sea Lion Island on Google maps Successful applicants will receive adequate training and will help with tagging and marking, counts, mapping of seals positions by GPS, management of environmental data loggers, behavioral observations, handling (weighing) of pups, and collection of biological samples. Moreover, they will help with photoidentification and observation of killer whales, and their predation behavior. They will also help with necropsies of elephant seals and sea lions predated by killer whales. Volunteers will be supervised by the PIs and/or by trained technicians. Previous experience of field work is appreciated but not essential. The field season runs for 6 months, from the beginning of September to the beginning of March. Only applicants who can stay for a minimum of about 3 months can be taken into consideration. Preference will be given to volunteers wishing to stay for the whole season (6 months). Applicants are required to pay all expenses to get to Sea Lion Island, and telephone/Internet expenses while there. Accommodation and food at SLI will be provided by the ESRG. Accommodation on SLI is rather basic and self-catering, but quite comfortable for a field research setting. Applicants will be required to work for the whole length of the day, seven days per week, with just half day per week of rest. The work is physically demanding, and it is often carried out in bad weather conditions. People without a good tolerance to cold are discouraged to apply. The island is a wonderful place with a very rich and tame wildlife, including large colonies of penguins and marine birds.

To apply please send 1) a cover letter describing your interest in the position, 2) a CV or resume, and 3) a copy of an identification document with picture, to dr. Filippo Galimberti (fil.esrg@eleseal.org). Please put all documents together in the same file. Preferred format for email attachments is PDF. Reference letters (3 maximum) are appreciated but not essential, and should be sent directly to the email address mentioned above.

Deadline for submission is May 31, 2013. Due to the limited number of positions available we warmly suggest perspective candidates to apply as soon as possible.

Filippo Galimberti & Simona Sanvito Elephant Seal Research Group fil.esrg@eleseal.org www.eleseal.org
simo.esrg@eleseal.org

Migrate-n question

Dear all,

I am a happy user of migrate-n by Peter Beerli but I have not used the geofile option so far. Now I may get into a project where geo information is relevant. The info in the manual about using the geofile are pretty basic. I'm hoping that you could suggest papers in which the geofile was used in order to analyse genetic data in a geographically explicit way. What are the most obvious first information that I could get out of using a geofile? Which further interesting analyses are possible?

Next, I also would like to understand changes over time in my system. Skyline plots in migrate-n are the solution. Also here: Can you suggest papers where migrate-n skyline plots were used?

Thanks and cheers, Robert

Dr. Robert H.S. Kraus Conservation Genetics Group Senckenberg Research Institute Research Station Gelnhausen Clamecystrasse 12, D-63571 Gelnhausen, Germany tel. 0049-(0)-6051-61954-3132 fax. 0049-(0)-6051-61954-3118 robert.kraus@senckenberg.de www.senckenberg.de "Chance favours a prepared mind"

Senckenberg Gesellschaft für Naturforschung Rechtsfähiger Verein gemäß Â§22 BGB Senckenberganlage 25 60325 Frankfurt

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)

Robert.Kraus@senckenberg.de

OmennPrize winner Demogines

The Foundation for Evolution, Medicine, & Public Health announces the winner of the Omenn Prize for the best article published in 2013 on a topic related to evolution in the context of medicine and public

health. The Prize Committee, Allen Rodrigo (chair), Carl Bergstrom, and Sarah Tishkoff, considered 47 articles, and awarded the prize to "Dual Host-Virus Arms Races Shape an Essential Housekeeping Protein" by Demogines A, Abraham J, Choe H, Farzan M, Sawyer SL (2013). PLoS Biol 11(5):e1001571. doi: 10.1371/journal.pbio.1001571 The first author, Ann Demogines, will receive the \$5000 Prize.

See more with details about the 4 articles that received Honorable Mention at: <http://evmedreview.com/?p=-2080> Randolph Nesse <http://RandolphNesse.com> President, The Foundation for Evolution, Medicine & Public Health <http://EvolutionaryMedicine.org> rmesse@gmail.com

Papers from ZfurTierpsychologie

Dear all,

I was looking to get hold of a copies of two old papers that appeared in Zeitschrift für Tierpsychologie <[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1439-0310a](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1439-0310a)> (the forerunner of Ethology). My home institution does not appear to be able to access them, despite having access to ethology, and I would be very appreciative if I could be sent pdf copies to jack.thorley12@imperial.ac.uk. The papers are:

Cassidy (1979) Half a century on the concepts of innateness and instinct- Survey, synthesis and Philosophical implications, 50 (4), 364-386

Schleidt (1974) How "fixed is the fixed action pattern?", 36 (1-5), 184-211.

Thanks in advance, Jack Thorley

jack.thorley12@imperial.ac.uk

Partula website

I have a message that I hope will be of interest to some users of evoldir, concerning the Partula snails that were of historical importance in evolutionary biology, although now largely forgotten about.

I have started a new website dedicated to the Partula snails (or rather all Partulidae - Samoana and Eua as

well). This covers their diversity, evolution and conservation. It is a work in progress and it is intended that it will eventually include comprehensive lists of species, synonyms, resources for identification and links to all the useful literature on any aspect of the snails. Please visit the website here <http://islandbiodiversity.com/partulapages.htm> The site also includes links to another new project of mine - preparation of a major monograph on the fantastic diversity of the Partulidae (<http://islandbiodiversity.com/crampton.htm>).

Justin

-

Dr. Justin Gerlach <<http://www.islandbiodiversity.com/jg.htm>> Chair - Terrestrial and Freshwater Invertebrate Red List Authority (IUCN/SSC) <<http://www.islandbiodiversity.com/tirla.html>> Facilitator - Climate Change Working Group of IUCN SSC Amphibian Specialist Group <<http://www.amphibians.org>> Scientific Coordinator - Nature Protection Trust of Seychelles <<http://www.islandbiodiversity.com/npts.htm>> Affiliated Researcher - University Museum of Zoology, Cambridge Academic Associate - Pembroke College, Cambridge Senior Member (Teaching) - Robinson College, Cambridge

Gerlach <gerlachs@btinternet.com>

Plant RNAextractionMethods

Hello all-

I'm looking for a 'home made' RNA extraction protocol for plants (citrus). I have not worked with citrus before but I have always liked to stay away from kits because the cost is usually ridiculous compared to just doing it your self.

Thanks-Greg

Greg W Douhan <greg.douhan@ucr.edu>

Software BaliPhy 3

Bali-Phy version 2.3 is now freely available for download. Bali-Phy is a Bayesian MCMC program for es-

timating phylogenies and sequence alignments jointly from unaligned sequence data. Version 2.3 should be faster than version 2.2 and generates prettier HTML reports.

The main new features in version 2.3 are: (<http://www.bali-phy.org/news.php>) - Speed increases relative to 2.2 - /bp-analyze.pl/ - Generate prettier HTML reports. - Fix and enable M1a, M2a, M2a_Test, M7, M8, M8a, M8a_Test. - Handle ambiguous nucleotides K, B, D, M, H, and V in nucleotide and codon alphabets. The model framework and alignment MCMC were both rewritten as well.

You can download binaries for Linux, Mac, and Windows here: - <http://www.bali-phy.org/download.php> < <http://www.biomath.ucla.edu/msuchard/bali-phy/download.php> >

You can read the updated manual here: - <http://www.bali-phy.org/README.xhtml> < <http://www.biomath.ucla.edu/msuchard/bali-phy/README.xhtml> >

If you have any trouble using bali-phy, please post your questions to bali-phy-users@googlegroups.com. I should be able to respond fairly quickly.

benjamin.redelings@duke.edu

VolFieldAssist TsaobisBaboons

Tsaobis Baboon Project - Volunteer Field Assistants

The Tsaobis Baboon Project is a long-term study of desert baboons in Namibia. Based at the Institute of Zoology (the research arm of the Zoological Society of London), and affiliated with the Gobabeb Research and Training Centre (Namibia), our aim is to carry out fundamental research in behavioural ecology and population ecology, and to inform conservation policy and practice for social species.

We are seeking to appoint six volunteer fieldworkers for the 2014-2015 field season, between late October 2014 and early August 2015. A range of 3-month and 6-month volunteer positions are available over this period. The fieldwork will primarily involve daily follows of baboon troops on foot, collecting data on the behaviour of individually recognisable animals, together with monthly insect/vegetation surveys and wider ecological monitoring related to the baboons' environment. The main research focus will be on climate, behaviour,

and baboon host-parasite dynamics.

Further information about the Tsaobis Baboon Project, the volunteer fieldworker positions, and the application procedure can be found on the Project's webpages:

www.zsl.org/science/research/baboon The deadline for applications is 9am Monday 16th June 2014

Interviews will be held at the Institute of Zoology between Monday 30th June and Wednesday 2nd July 2014. Telephone/Skype interviews will be possible for overseas applicants.

"Raby, Cassandra" <C.Raby@liverpool.ac.uk>

ZoologicalSystematics Award

**** 16th R.J.H. HINTELMANN SCIENTIFIC AWARD FOR ZOOLOGICAL SYSTEMATICS ****

This award is for early career postdocs, in the field of zoological systematics, including studies in evolutionary biology, phylogenetics and biogeography that do relate to zoological systematics, both in fossil and extant fauna.

The award is housed at Zoological State Collection Munich and its value is 5000 Euro, so it is definitely worth applying. Details can be found here: http://www.zsm.mwn.de/freunde/wiss_preis.htm

Contact Michael Balke <michael.balke@yahoo.de> who will be more than happy to help.

Deadline for applications is July 15, 2014.

Coleoptera-ZSM <Coleoptera-ZSM@zsm.mwn.de>

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AAFC Saskatoon EvolutionaryBioinforamtics

Postdoctoral position in evolutionary bioinformatics for Canadian or landed immigrant

A postdoctoral fellowship in evolutionary bioinformatics is available in Crop Genetic Diversity Laboratory, Plant Gene Resources of Canada, Saskatoon Research Centre, Agriculture and Agri-Food Canada. We are looking for a motivated researcher with a background in evolutionary bioinformatics of genomic data and/or with computer programming skills. The researcher will join the research effort to investigate the mechanisms and genes responsible for, and to monitor, the loss of seed viability during long-term storage using next generation sequencing approaches. The researcher will also have the opportunity to explore research of their own interest, particularly associated with the evolution of seed ageing, using various genomics tools.

The position is available immediately until filled to CANDIAN CITIZEN or LANDED IMMIGRANT only. The successful candidate will be offered through an NSERC Government Visiting Fellowship with a fixed term of one year, extensible up to two extra years, with an annual stipend of about \$48K.

If you are interested, please contact Dr. Yong-Bi Fu (yong-bi.fu@agr.gc.ca) with your CV (listing names of 2-3 references) and cover letter. More details about Dr. Fu's crop genetic diversity lab and PGRC can be found at http://pgrc3.agr.ca/staff/fu_e.html . Yong-Bi Fu, PhD Plant Gene Resources of Canada / Les Ressources Phytogenétiques du Canada Saskatoon Research Centre / Centre de Recherche de Saskatoon Agriculture and Agri-Food Canada/Agriculture et Agroalimentaire Canada 107 Science Place Saskatoon, SK S7N 0X2 Canada Telephone/Téléphone: 306-956-7642

Facsimile/Télécopieur: 306-956-7246 Email: yong-bi.fu@agr.gc.ca http://pgrc3.agr.ca/staff/fu_e.html
"Fu, Yong-Bi" <Yong-Bi.Fu@AGR.GC.CA>

AarhusU Denmark QuantitativeGeneticModels

Postdoc in Quantitative Genetic Models of Complex Traits

The Danish Centre for Genomic Selection in Animals and Plants (GenSAP) is seeking a motivated and productive Post Doc to understand the mechanisms underlying the development of genetic variance of complex traits under selection. The position is open for 2 years with a possibility for extension.

Aim of project: The project aims to understand the mechanisms underlying the development of genetic variance in populations under selection. We will do this by developing a biology-based partitioning of genomic variance of complex trait phenotypes. Whole-genome sequences and multiple trait phenotypes from large numbers of individuals will soon be available in many populations. These data allow a detailed molecular characterization of the genetic variability at the sequence level and should enable us to investigate several fundamental aspects of the genetic basis of complex traits. Well established statistical modelling approaches enable the genetic analyses of complex trait phenotypes while accounting for a variety of additive and non-additive genetic mechanisms. These modelling approaches have proven to be highly useful to determine population genetic parameters as well as prediction of genetic risk or potential of complex trait phenotypes. Basic biology tells us that complex trait phenotypes are expressed as a result of interplay between molecular and cellular

components, each interacting at various levels (e.g. cellular, molecules, RNA, DNA) entangled in various biological pathways. Fundamental research is required to better understand how and to what extent it is useful to use information on basic biology for partitioning the genomic variance of complex trait phenotypes. A number of approaches will be used including 1) developing novel genetic models, stochastic simulation tools, and statistical modelling approaches, and 2) to apply these to experimental data from *Drosophila melanogaster* and from agricultural animal and plant populations.

GenSAP: The overall goal of GenSAP is to develop the next generation genomic breeding tools for genetic improvement schemes in agricultural plants and animals. GenSAP brings together Danish breeding companies and research groups as well as leading international research groups to make a joint strategic research effort to build the foundation for next generation genomic selection (GS). GenSAP will develop GS methodologies across all agricultural species and integrate and extract relevant information from the massive amounts of data emerging from whole genome sequencing, functional genomics, epigenomics and complex phenotyping technologies. Improved GS models will be developed based on efficient algorithms accounting for e.g. gene-by-gene and gene-by-environment interactions. Advanced computational tools for optimizing and evaluating selection decisions based on in silico data will be developed to ensure a sustainable long-term implementation of GS. For further information please visit our website: www.gensap.au.dk . Qualification:

Ph.D. in quantitative genetics, evolutionary genetics, statistical genetics, or related fields

Strong background and interest in quantitative genetic models of complex traits

A solid understanding of statistical genetic methods and experience with application of these to real data

Preferable experience in scripting and/or programming

Strong skills in oral and written communication in English

Ability to work in a large and diverse group of researchers, and collaborate with international research partners

Place of work: GenSAP is part of Center for Quantitative Genetics and Genomics (QGG) at Aarhus University (AU). QGG is a major center for research and education in quantitative genetics, quantitative genomics and breeding. It comprises 20 senior staff and a large group of PhD.-students and postdocs. The center is part of the Department for Molecular Biology and Ge-

netics and is located at the AU Foulum campus (for the locations of the department see <http://mbg.au.dk/en/-contact/how-to-find-the-department/>). QGG provides a very dynamic and internationally orientated environment with strong collaborations with relevant industrial partners and with several other leading international research groups in the area.

Deadline and how to apply: All applications must be made online and received by: 29.04.2014. For original posting on AU website, more information, and link to online application system please go to this site

— / —

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

ArizonaState RevisionaryInsectSystematics

Postdoctoral Researcher “ Revisionary Insect Systematics School of Life Sciences Arizona State University

A postdoctoral position in revisionary insect systematics is available in the Franz Lab (<http://-taxonbytes.org/>), School of Life Sciences, Arizona State University. We seek a candidate with an exceptional record of training and achievement in morphology-based taxonomic revisions of insects and a motivation to integrate their research with developing biodiversity informatics concepts and tools. The taxonomic specialization within insects is open and subject to coordination; however a training background including weevils (Curculionoidea) or other beetle lineages (Coleoptera), or motivation to transition to such taxa, is preferred. The Franz Lab is involved in several biodiversity informatics initiatives (<http://taxonbytes.org/-informatics/>); therefore the creative integration of revisionary research products with these and others initiatives is desired. Excellent leadership, communication and student mentoring skills are also sought. The preferred starting date is October 1st to December 1st, 2014, and funds are available for up to three years pending suitable progress. The position includes standard ASU benefits for postdoctoral researchers.

Applicants should send a cover letter describing their interests and relevant experience, a Curriculum Vitae, and contact information of at least three references to:

Dr. Nico Franz, School of Life Sciences, Arizona State University, PO Box 874501, Tempe, AZ, 85287-4501. E-mail: nico.franz@asu.edu (e-mail applications preferred). Informal inquiries via e-mail are strongly encouraged. The initial closing date for receipt of applications is July 1st, 2014; applications will be reviewed every two weeks thereafter until the search is closed.

A background check is required for employment. Arizona State University is an equal opportunity/affirmative action employer committed to excellence through diversity. Women and minorities are encouraged to apply (<https://www.asu.edu/-titleIX/>). For additional information on the School of Life Sciences, please visit <http://sols.asu.edu> Link to URL: <http://taxonbytes.org/new-postdoctoral-position-in-revisionary-insect-systematics/> —

Nico M. Franz, Ph.D. Associate Professor & Curator of Insects

School of Life Sciences PO Box 874501 Arizona State University Tempe, AZ 85287-4501

Lab: (480) 965-2850 Collection:(480) 965-2036 Fax: (480) 965-6899 E-mail: nico.franz@asu.edu

Website: <http://taxonbytes.org> Twitter: <https://twitter.com/taxonbytes> ASUHIC: <https://symbiota4.acis.ufl.edu/scan/portal/collections/-misc/collprofiles.php?collid=1> WoNA: <http://symbiota4.acis.ufl.edu/scan/portal/checklists/-checklist.php?cl=1> nmfranz@asu.edu

ArizonaStateU MicrobialGenomics

The Wang (<https://sols.asu.edu/people/xuan-wang>) and Cartwright (<http://cartwrig.ht/>) Labs at Arizona State University are looking to jointly hire a postdoc research associate to study the process of evolution in microorganisms that have been selected for the production of bio-based chemicals. Through metabolic engineering and evolution the Wang lab seeks to increase the efficiency of microbes to use sugars from renewable biomass and produce new “value-added” chemicals such as industrial bulk chemicals, nutrition supplements, pharmaceuticals and biological polymers. By partnering with the Cartwright lab, we intend to use bioinformatic and genomic techniques to characterize the mutations in our novel microbial strains and map the fitness landscape of our experiments. The postdoc may also contribute to the DeNovoGear software pack-

age (<https://github.com/denovogear/>).

The Cartwright Lab is part of the Center for Evolutionary Medicine and Informatics (CEMI), a research center in Arizona State University’s Biodesign Institute. Research in the Cartwright Lab covers many different questions in population genetics and molecular evolution, at the interface of biology, statistics, and computer science. A majority of our research involves developing, implementing, and applying novel methodologies to study genomic datasets. Members have the opportunity to develop both dry-lab and wet-lab research programs through interactions with both national and international collaborations.

The Cartwright Lab is part of the Center for Evolutionary Medicine and Informatics (CEMI), one of 10 research centers in Arizona State University’s Biodesign Institute. Research in the Cartwright Lab covers many different questions in population genetics and molecular evolution, at the interface of biology, statistics, and computer science. A majority of our research involves developing, implementing, and applying novel methodologies to study genomic datasets. Members have the opportunity to develop both dry-lab and wet-lab research programs through interactions with both national and international collaborations.

As part of this project, the Postdoctoral Research Associates are expected to be able to:

- (1) Assemble microbial or metazoan genomes from short-read sequences and identify variable sites and regions.
- (2) Develop novel, high-throughput methodologies to study mutations from next generation sequencing of related individuals and cells.
- (3) Work closely with collaborators to customize methodologies to specific experimental designs.

Required Qualifications: Ph.D. in genomics, bioinformatics, or a related field

Desired Qualifications: Experience working with genomes and evolutionary analyses; Knowledge of programming languages including R, Python, and C++; Knowledge of statistical methodologies; Experience with short-read sequencing

Application must contain: (1) Resume, (2) Cover Letter, (3) Names, email addresses, and phone numbers of three professional references.

Applications are currently being reviewed and will be considered until the job is filled/closed.

For more information see <http://cartwrig.ht/lab/> or <http://labs.biodesign.asu.edu/cartwright/> . To ap-

ply, forward one document that includes a cover letter, detailed CV, and names of 3 references to cartwright@asu.edu. Please put the job title in the subject line of the letter.

Arizona State University is an Equal Opportunity/Affirmative Action employer. A background check is required for employment.

A pdf of this ad is available at <http://cartwrig.ht/-postdocs.pdf> Reed A. Cartwright, PhD Assistant Professor of Genomics, Evolution, and Bioinformatics School of Life Sciences Center for Evolutionary Medicine and Informatics The Biodesign Institute Arizona State University

Address: The Biodesign Institute, PO Box 875301, Tempe, AZ 85287-5301 USA Packages: The Biodesign Institute, 1001 S. McAllister Ave, Tempe, AZ 85287-5301 USA Office: Biodesign A-224A, 1-480-965-9949 Website: <http://cartwrig.ht/> rcartwri@asu.edu

ArizonaStateU MutationalGenomics

The Cartwright Lab (<http://cartwrig.ht/>) at Arizona State University is looking for a postdoc research associate to develop methods and software to detect de novo mutations from next-generation sequencing of related individuals and cells. By studying de novo mutations who aim to learn more about evolutionary processes and genetic diseases. This postdoc is part of an NIH funded project to develop the DeNovoGear software package (<https://github.com/denovogear/>). Research on DeNovoGear is begin conducted jointly with the Conrad lab at WUSTL (<http://genetics.wustl.edu/-dclab/>).

The Cartwright Lab is part of the Center for Evolutionary Medicine and Informatics (CEMI), a research center in Arizona State University's Biodesign Institute. Research in the Cartwright Lab covers many different questions in population genetics and molecular evolution, at the interface of biology, statistics, and computer science. A majority of our research involves developing, implementing, and applying novel methodologies to study genomic datasets. Members have the opportunity to develop both dry-lab and wet-lab research programs through interactions with both national and international collaborations.

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As part of this project, the Postdoctoral Research Associates are expected to be able to:

- (1) Assemble microbial or metazoan genomes from short-read sequences and identify variable sites and regions.
- (2) Develop novel, high-throughput methodologies to study mutations from next generation sequencing of related individuals and cells.
- (3) Work closely with collaborators to customize methodologies to specific experimental designs.

Required Qualifications: Ph.D. in genomics, bioinformatics, or a related field

Desired Qualifications: Experience working with genomes and evolutionary analyses; Knowledge of programming languages including R, Python, and C++; Knowledge of statistical methodologies; Experience with short-read sequencing

Application must contain: (1) Resume, (2) Cover Letter, (3) Names, email addresses, and phone numbers of three professional references.

Applications are currently being reviewed and will be considered until the job is filled/closed.

For more information see <http://cartwrig.ht/lab/> or <http://labs.biodesign.asu.edu/cartwright/> . To apply, forward one document that includes a cover letter, detailed CV, and names of 3 references to cartwright@asu.edu. Please put the job title in the subject line of the letter.

Arizona State University is an Equal Opportunity/Affirmative Action employer. A background check is required for employment.

A pdf of this ad is available at <http://cartwrig.ht/-postdocs.pdf> Reed A. Cartwright, PhD Assistant Professor of Genomics, Evolution, and Bioinformatics School of Life Sciences Center for Evolutionary Medicine and Informatics The Biodesign Institute Arizona State University

Address: The Biodesign Institute, PO Box 875301, Tempe, AZ 85287-5301 USA Packages: The Biodesign

Institute, 1001 S. McAllister Ave, Tempe, AZ 85287-5301 USA Office: Biodesign A-224A, 1-480-965-9949 Website: <http://cartwrig.ht/> rcartwri@asu.edu

AustraliaNatIU PlantGenomics

ANU_CentrePlantEnergyBiology_6Postdocs < <http://jobs.anu.edu.au/PositionDetail.aspx?p901> >

text

Postdoctoral Fellow / Research Fellow (A180-14GZ)

Division of Plant Sciences, Research School of Biology, ANU College of Medicine, Biology and Environment

Applications are invited for six postdoctoral / research fellow positions at the ANU as part of the newly-funded Australian Research Council (ARC) Centre of Excellence in Plant Energy Biology. Location Canberra/ACTTerm of ContractFixed Term of 2 Years-GradeLevel A-BSalary Package\$62,511 - \$98,269 pa plus 17% superannuation

View Academic Salary Information... < http://info.anu.edu.au/hr/Salaries_and_Conditions/Salaries/index.asp > Closing Date31 May 2014Position OverviewThe newly-funded Australian Research Council (ARC) Centre of Excellence in Plant Energy Biology (CPEB) is a cutting-edge research centre. The centre is focused on understanding how plants regulate their energy system in harsh and changing environments (see: <http://www.plantenergy.uwa.edu.au/research/>). The Centre, which has nodes located at the Australian National University (ANU), University of Western Australia, University of Adelaide and La Trobe University, has received ARC funding of \$26 million over the period 2014 to 2021. A feature of the CPEB will be the integration of projects that span several levels of biological organisation (molecular-organelle-cellular-whole plant).

The ANU node of the CPEB is seeking to appoint six highly qualified innovative Postdoctoral / Research Fellows, for 2'6 years, to join a team of 30-40 staff and students working on genomics, phenomics, biochemistry and physiology of plants, both in cereal crops species and model plant systems. Appointees will join large dynamic, collaborative labs and interact broadly through the CPEB.

Applicants with a proven ability to conduct and publish high quality research, with skills in the following

areas, are encouraged to apply:

1. Chloroplast-nuclear communication and cellular signaling
2. Carotenoid biosynthesis and function of apocarotenoids in cellular signaling
3. Physiology and/or biochemistry of abiotic stress tolerance in plants
4. Regulation of plant respiratory metabolism in contrasting environments
5. Plant (epi)genomics and phenomics
6. Natural variation in plant tolerance of drought, temperature and nutrient stresses

Specific details on these projects can be found at <http://borevitzlab.anu.edu.au/jobs>. Information about the Centre can be found at <http://plantenergy.uwa.edu.au/> Also please visit the faculty pages of Professor Barry Pogson, Professor Owen Atkin and A/Professor Justin Borevitz.

The University actively encourages applications from Aboriginal and Torres Strait Islander people. For more information on employment opportunities, contact our Indigenous Employment Consultant on indigenous.employment@anu.edu.au ANU values diversity and inclusion and believes employment opportunities must not be limited by socio-economic background, race, religion or gender. For more information about staff equity at ANU, visit <http://hr.anu.edu.au/staff-equity> For further information please contact Ms Estee Tee, Phone: +61 (02) 6125 2663 or email: Estee.Tee@anu.edu.au. Additional InformationPEWER.pdf < <http://jobs.anu.edu.au/Downloads/3901.20140423033233.pdf> > Position description Responsible toChief InvestigatorRole statementPURPOSE

STATEMENT: The Postdoctoral Fellow/Research Fellow positions are part of the newly-funded (CE14010008) Australian Research Council (ARC) Centre of Excellence in Plant Energy Biology (CPEB) that will focus on understanding how plants regulate their energy system in harsh and changing environments. The appointees will have skills in plant genomics, phenomics, biochemistry and/or physiology, and an interest in the underlying factors that regulate the response of the plant energy system, to environmental change. The appointee's skills will complement those of the Chief Investigators at the Australian National University (ANU) node of CPEB. These positions conduct laboratory and field-based research designed to achieve the research objectives of the CPEB, and are members of the ANU node of the CPEB located within the Research School of Biology (RSB), ANU College of Medicine, Biology & Environment (CMBE). Skills required are in one or more of the following areas:

1. Chloroplast-nuclear communication and cellular signaling
2. Carotenoid biosynthesis and function of apoc-

arotenoids in cellular signaling

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BilkentU Turkey EvolutionaryGenomics

Postdoctoral Fellowship in Genome Assembly and Evolutionary Genomics

A postdoctoral position is available immediately at the Computational Genomics and Bioinformatics Group in the Department of Computer Engineering in Bilkent University, Ankara, Turkey. The position is joint with the Somel Lab of the Department of Biological Sciences in Middle East Technical University.

As the Computational Genomics and Bioinformatics Group, we develop combinatorial algorithms to analyze genomic sequence data to discover, genotype, and phase genomic variants with a special focus on structural variation and segmental duplication. We are also interested in de novo genome assembly and transcriptome analysis. We apply our algorithms on sequence data generated from the genomes of various organisms including humans, to catalog normal variation, and study genome evolution.

The successful candidate will be responsible for leading a project that involves de novo assembly and further analysis of the genome of pearl mullet (*Chalcalburnus tarichi*). The pearl mullet is the only fish (and the only vertebrate) that lives in Lake Van in eastern Turkey, and it shows remarkable adaptation to the saline and extremely alkaline (pH 9.8) lake water. The genetic and physiological mechanisms underlying this unique trait, as well as the pearl mullet's population structure, remain unknown.

The project will include the following steps: - De novo assembly and the annotation of the pearl mullet genome using both Illumina and Pacific Biosciences data. - Comparative genomics analysis to understand the evolution of the Cyprinidae family and adaptive evolution of the pearl mullet. - Transcriptome analysis for genome annotation; identification of gene expression networks underlying adaptation to alkaline water. - Population genomics analysis of samples from different

sections of the lake to understand the pearl mullet's migration and breeding patterns and population history. More details can be found in our lab web page at: <http://donut.cs.bilkent.edu.tr> Requirements: - Ph.D. degree in bioinformatics, genomics, computer science, or related fields. Ph.D. candidates who expect to graduate soon are welcome to apply. - Experience in genome assembly and annotation is strongly preferred. - Experience in evolutionary genetics, population genomics, or transcriptome analysis is a plus. - Strong programming skills in at least one high level programming language; such as C, C++, Java, or Python.

A competitive salary and subsidized on-campus accommodation will be provided. The successful candidate will also be encouraged to apply for the TÁBÁTAK 2232 (for Turkish candidates) and the Co-Funded Brain Circulation Scheme fellowship programs (all candidates; gross monthly salary 4,167; deadline September 19, 2014; URL: <http://www.cocirc.tubitak.gov.tr/-node/9>). The initial appointment will be for one year, with renewal available for two more years.

Applicants should email a cover letter, CV, brief research statement and list of 3 references to Dr. Can Alkan (calkan@cs.bilkent.edu.tr), or Dr. Mehmet Somel (somel.mehmet@gmail.com). Please combine all files into a single PDF and use the subject line "Postdoc Application (Pearl Mullet): (name)".

Further contact details below.

Can Alkan, Ph.D. Assistant Professor Bilkent University Department of Computer Engineering EA-509 Bilkent, Ankara 06800, Turkey Phone: +90-312-290-2912 Email: calkan@cs.bilkent.edu.tr <http://www.cs.bilkent.edu.tr/~calkan> somel.mehmet@googlemail.com

CSIRO WesternAust PlantSymbiontGenomics

Applications are invited for a 3-year OCE Postdoctoral Fellowship in ecological genomics of plant-symbiont interactions. In this role you will explore the fundamental question of what drives symbiotic soil microbe diversity and function at the population level, with a view to applications in ecological restoration and revegetation. In particular, research increasingly demonstrates that land use intensification alters the diversity and composition of symbiotic soil microbes. The project aims

to understand whether these changes limit outcomes of restoration or revegetation, through a genomics approach to understanding adaptation and dispersal in plant symbionts.

Specifically you will:

- 1) Design and conduct field sampling of symbiotic nitrogen-fixing bacteria (rhizobia) associated with *Acacia* as the basis for understanding environmental determinants of genomic variation.
- 2) Manage and analyse large survey and experimental datasets that combine ecological and genetic data.
- 3) Design and conduct field or glasshouse experiments including culturing of rhizobia, to test hypotheses about microbial adaptation.
- 4) Carry out innovative, impactful research of strategic importance to CSIRO that will where possible lead to novel and important scientific outcomes.

Location: Floreat, Western Australia Salary: AU\$78K to \$88K plus up to 15.4% superannuation (pension fund) Tenure: 3 years Reference: WA14/01279

To be successful in this position you will have:

- 1) A doctorate (or will shortly satisfy the requirements of a PhD) in a relevant discipline area, such as evolutionary ecology of soil microbes.
- 2) Demonstrated capability to design, conduct and publish innovative research in the ecology and genetics of plant-symbiont interactions.
- 3) Experience in culturing and maintaining plant-symbionts, and in designing and conducting surveys and experiments involving sampling and manipulation of plant-symbionts.
- 4) Expertise in statistical modelling or bioinformatics using large datasets.

The successful appointee must have completed, or will shortly complete, the requirements for a PhD degree in a relevant scientific discipline. Owing to terms of the fellowship, candidates must not have more than 3 years of relevant Postdoctoral experience.

Who we are: The Commonwealth Scientific and Industrial Research Organisation (CSIRO) is one of the largest and most diverse scientific organisations in the world. By igniting the creative spirit of our people, we deliver great science and innovative solutions that benefit industry, society and the environment.

Applicants must apply online via the CSIRO Careers website:

<http://csiro.nga.net.au/cp/index.cfm?event=-jobs.viewJobDetailsNewApplication&AccessibilityMode=>

[true&CurATC=EXT&CurBID=62afb35d-9273-4a11-8dcc-9db401354197&jobid=6780ffb-3773-450d-85e8-7fb7f96c2e31&returnToEvent=-jobs.home&persistVariables=-CurATC,CurBID,jobid,returnToEvent&lid=-60639850006](http://csiro.nga.net.au/cp/index.cfm?event=-jobs.viewJobDetailsNewApplication&AccessibilityMode=true&CurATC=EXT&CurBID=62afb35d-9273-4a11-8dcc-9db401354197&jobid=6780ffb-3773-450d-85e8-7fb7f96c2e31&returnToEvent=-jobs.home&persistVariables=-CurATC,CurBID,jobid,returnToEvent&lid=-60639850006) Applications close 15 June 2014.

DrOwain Edwards Program Leader | Evolutionary Biology Principal Research Scientist CSIRO Ecosystem Sciences Underwood Avenue, Floreat WA 6014| Clunies Ross St, Canberra, ACT 2601

Phone: +6189333 6401 (Perth)| +6126246 4514 (Canberra)| Mobile: 0438877 180
owain.edwards@csiro.au

Owain.Edwards@csiro.au

CUNY NewYork ComparativePopulationGenetics

Postdoctoral research scientist position available in comparative population genomics

Applications are invited for a postdoctoral research scientist position in NYC with a competitive salary (\$60,000 a year) for up to 2.5 years. The research is will focus on developing and implementing multi-species population genetic models for historical demographic inferences of communities and/or species assemblages in the context of complex dynamic and cyclical shifts in landscape and/or climate.

The research will develop general inferential models for aggregate population genomic data sets sampled from assemblages of non-model species via NGS. Although models will be broadly applicable to a wide-range of biota and geographic contexts, there will be an opportunity to focus on inference of the taxonomically broad community history of the Brazilian Atlantic Forest and/or Western Palearctic communities of insect herbivores and parasitoid enemies.

While based at CUNY in NYC, the research will be part of a broader collaborative effort between Michael Hickerson (CUNY), Ana Carnaval (CUNY), Brian Smith (AMNH), Rob Toonen (U of Hawaii) and scientists from the University of Sao Paulo and the University of Edinburgh (Graham Stone and Konrad Lohse). This position is funded by NSF CAREER grant (DEB 1253710) to Hickerson and NSF/NASA Dimensions grant (DEB 1343578) to Carnaval (lead PI), Hickerson, Kyle MacDonald (CUNY), Fabian Michelangeli

(NYBG) and Wayt Thomas (NYBG).

The research will entail travel to annual project workshops in Brazil and/or Scotland.

Applicants must have a quantitative background or have extensive experience in population genomics or phylogenomics, as well as a sincere interest in evolutionary biology and ecology. Programming skills are essential and should include proficiency working in the Unix environment as well as experience with R, Python/Perl and Unix shell scripting. Experience with C/C++ and the standard set of sequence analysis tools (e.g. vcftools, Bowtie etc) is a plus.

Informal inquiries as well as applications (including a cv, copies of relevant publications and two names of references) should be emailed to mhickerson at ccny.cuny.edu. Start time is flexible, but were aiming for Summer or Fall of 2014. Application deadline is June 7th 2014.

Mike Hickerson Assistant Professor City College and the Graduate Center of CUNY Biology Department 160 Convent Ave New York, NY 10031 <http://hickerlab.wordpress.com/> <http://www.nycep.org/faculty/michael-hickerson> mhickerson@gmail.com

CornellU SharkPopulatinGenomics

Postdoctoral position in shark comparative transcriptomics and population genomics at Cornell University

A postdoctoral position is available in the laboratory of Michael J. Stanhope in the Department of Population Medicine and Diagnostic Sciences, in the Cornell College of Veterinary Medicine. Research areas of the lab involve evolutionary genomics of a wide variety of organisms including bacteria, protozoans, and sharks. We are looking for a person to work in the area of elasmobranch comparative transcriptomics and/or population genomics. This work will be conducted in collaboration with Dr. Mahmood Shivji from Nova Southeastern University's Save Our Seas Shark Research Center and Guy Harvey Research Institute. The comparative transcriptomic work would be designed to assess the molecular features associated with various physiological, behavioral and reproductive life history differences characteristic of different taxa. The population genomics work would involve analyzing genotyping by sequencing data originating from global population samples of different species of sharks, with the goal of developing a

high-resolution population structure and demographics picture for conservation management purposes.

Applicants must have a Ph.D. in a biological sciences discipline and be comfortable working with high throughput short read datasets in a Linux environment. The ideal candidate will have a background in population genomics, and/or eukaryotic transcriptomics.

The start date is flexible, but preferably before October/2014. Applications will be accepted until the position is filled. Competitive salaries commensurate with experience and skills, as well as a generous benefits package will be offered. The position is full-time for two years subject to the completion of a satisfactory probation period for new appointees; further extension may be available subject to funding, need and performance.

Interested applicants should send a CV, a brief description of research interests and experience, and contact information for three references to Michael J. Stanhope at mjs297@cornell.edu.

"Michael J. Stanhope" <mjs297@cornell.edu>

Edinburgh DothistromaPopulationGenetics

Post Doctoral Researcher in Crop Protection (Fixed Term)

Applications are invited for a Post Doctoral Researcher in Crop Protection in the Crop and Soil Systems Research Group.

The post doc will work on a BBSRC funded project on Scots Pine needle blight as part of the governmental tree health initiative. The project 'PROTREE' will look at the pathogen *Dothistroma* needle blight and in particular its population variation, possible fungicide resistance, and recent evolution. The candidate will have a PhD in plant pathology and experience with molecular techniques in this field.

Applicants must hold a BSc (Hons) degree in agriculture or plant/crop biology and a PhD in a relevant discipline within agriculture, crop protection or plant/crop science.

This post is fixed term until 31 August 2016 in the first instance.

Salary: £21,700 - £32,950 per annum Location: Edin-

burgh Closing Date: Friday, 6th June 2014

Click here to apply: http://www.sruc.ac.uk/jobs/262/-post_doctoral_researcher_in_crop_protection_fixed_term

Peter Hoebe <Peter.Hoebe@sruc.ac.uk>

FlindersU Adelaide EcologicalGenomics

4 year Lecturer in Molecular Ecology & Postdoctoral Fellow in Ecological Genomics

We are looking for a highly qualified researcher for delivering undergraduate teaching in 'Conservation and Ecological Genetics' and for conducting research in landscape and functional genomics of adaptation to environmental change in the project 'Evolution, adaptation and resilience of Australian fishes' (ARC Future Fellowship 130101068). This job provides a great opportunity for a postdoc to gain experience with teaching and cutting edge research on a generous 4 year Level B contract (\$82,404 to \$97,852 p.a. plus benefits). **ESSENTIAL CRITERIA** 1. PhD, or equivalent qualifications and standing, in Molecular Ecology or a related research field in the non-human Biological Sciences. 2. Demonstrated ability to obtain external research grants. 3. Previous experience working on research projects in Molecular Ecology. 4. A record of high quality publications in the field of Molecular Ecology. 5. Well developed interpersonal skills and attributes 6. Previous tutoring and/or teaching experience in Biology. 7. Demonstrated ability to communicate scientific results effectively in English.

DESIRABLE CRITERIA 1. Teaching experience at the undergraduate and / or postgraduate level in the field of Molecular Ecology or a related research field in the non-human Biological Sciences. 2. Experience with bioinformatics of next-generation sequence data. 3. Experience with analysis of population genomics datasets.

This position will be located in the School of Biological Sciences on the Flinders University main campus in Adelaide. The researcher will be based at the Molecular Ecology Laboratory at Flinders University (MELFU): www.molecularecology.flinders.edu.au Closing date: 26 May 2014. Starting date: mid July 2014

HOW TO APPLY Full details about this position including how to apply on-line can be found at the Jobs@Flinders website: www.flinders.edu.au/-employment/vacancies/academic.cfm For fur-

ther information about the position please contact Professor Luciano Beheregaray, luciano.beheregaray@flinders.edu.au

Professor Luciano Beheregaray ARC Future Fellow and Head of Molecular Ecology Group School of Biological Sciences, Flinders University Adelaide SA 5001, Australia Phone: 61(8) 82015243; Fax: 61(8) 82013015 Lab website: www.molecularecology.flinders.edu.au Staff website: www.flinders.edu.au/people/-luciano.beheregaray Luciano Beheregaray <luciano.beheregaray@flinders.edu.au>

GLIER UWindsor GeneticsInvasion

Postdoctoral Fellowship in Invasion Ecology at the Great Lakes Institute for Environmental Research-University of Windsor (GLIER-UW)

We are seeking applicants for a two year Postdoctoral Fellowship (PDF) in Invasion Ecology focused on phenotypic plasticity and genetic diversity of successful and less successful aquatic invasive species (AIS). The PDF will be part of research project ('Reducing uncertainty for risk-based management through assessments of phenotypic plasticity and genetic diversity in AIS') that is part of the NSERC funded Canadian Aquatic Invasive Species Network (CAISN). The PDF will responsible for:

- 1) amalgamating and publishing synthesis papers from stable isotope, genetic, and metabolic data across spatial and temporal scales from successful and less successful AIS,
- 2) developing specific predictive models that incorporate the concept of adaptive and evolutionary responses of AIS to novel environments, and
- 3) developing new research projects of particular interest to the applicant.

The applicant will work with current MSc and PhD students within this project.

Applicants must have a PhD or defense date set before June 30, 2014. Applicants with experience or expertise in stable isotopes and genetic analyses and interpretation will be favored. Strong quantitative skills are critical. Competitive salaries and benefits packages are available. Position can start immediately.

GLIER-UW is a research institute with an active and vibrant graduate program and diverse externally

funded research programs within the Faculty of Science. GLIER UW's mission statement is 'to conduct research and training relevant to sustainability of the Great Lakes and their watersheds, with a focus on interacting multiple stressors.' GLIER UW faculty have research strengths in ecological tracers, fisheries, conservation and evolutionary genetics, invasion biology, ecotoxicology, analytical chemistry and nutrient/metal/chemical dynamics. To learn more about GLIER UW, please visit us at <http://www.windsor.ca/glier>. If interested, please send a CV, including a list of 3 references, to Drs. Aaron Fisk (afisk@uwindsor.ca) or Daniel Heath (dheath@uwindsor.ca).

Sara Jamieson <saraj@uwindsor.ca>

GhentU MarineAnimalEvolution

The Faculty of Sciences, Ghent University (Belgium) has a vacancy for a position of Doctor-assistant in the field of marine ecology. It concerns a temporary appointment for three years, renewable for another two years. The successful candidate will perform scientific research on the ecology of marine benthic animals, in one or more of the following research foci: structural and functional biodiversity, evolutionary ecology, phylogeography; He/she will also contribute to several courses and practical sessions in the fields of biology and marine ecology, and to academic servicing tasks in the Biology Department. For a detailed description of the job, and application procedure use this link or visit the UGent website <http://www.ugent.be/en/-vacancies/assisting/welldae20140511.htm> Sincerely,

Prof. Dr. Tom Moens Ghent University, Faculty of Sciences, Biology Department Marine Biology Lab Krijgslaan 281/S8 9000 Gent Belgium tom.moens@ugent.be tel 0032 9 264 85 22

Tom.Moens@UGent.be

Glasgow ViralEvolution Phylodynamics

Research Assistant / Associate in viral evolution and phylodynamic modelling - Ref: 008682

Grade 6/7: £26,527 - £29,837 / £32,590 - £36,661 per annum

We are looking to recruit a postdoc with strong quantitative skills in molecular evolution/ bioinformatics and an interest in epidemiological models to support our research programme on bluetongue virus. This project is funded by the Wellcome Trust and involves Prof M Palmarini (CVR) and Dr R Biek (Institute of Biodiversity, Animal Health and Comparative Medicine) at Glasgow with Prof P Mertens (Pirbright Institute) and Prof P Kellam (Sanger Institute) as main project partners. The successful applicant will be supervised by Dr Roman Biek and be based within his research group.

BTV is a vector-borne, segmented RNA virus, responsible for a globally important disease in livestock. In recent decades, repeated incursions of BTV into Europe have caused major outbreaks and significant economic damage. However, the major drivers behind BTV emergence, spread and persistence remain poorly understood. Based on extensive BTV collections at Pirbright, including comprehensive samples of recent European BTV outbreaks, and novel sequencing technology at the Sanger, our project is generating sequence data sets of hundreds of BTV genomes accompanied by detailed metadata (sampling date, farm location, host species, etc). The successful candidate will be using these data as platform for gaining new, fundamental insights into the transmission dynamics of BTV, including patterns and environmental drivers of spatial spread and viral persistence, through the application of phylodynamic and other computational approaches. This work is expected to fill important gaps in our understanding of BTV epidemiology and to contribute to novel control strategies. At the same time, the position will give an opportunity to develop and test new methodological approaches, and provide excellent training opportunities at the interface of viral evolution, whole genome sequencing and infectious disease epidemiology, an emerging research area of increasing relevance.

Applicants will be enthusiastic, motivated, well organised scientists with knowledge, experience and proven ability to produce work of the highest standard suitable for publication in leading international, peer-reviewed journals. Applicants must have a PhD and the desire to undertake cutting-edge scientific research. Excellent oral and written communication skills, and the ability to work independently and co-operatively within a team, are essential capabilities for this post. The position is for two years initially, with a possibility of extension.

Informal enquiries should be directed to Dr Roman Biek

(Roman.Biek@Glasgow.ac.uk).

Apply online at www.gla.ac.uk/about/jobs/vacancies
Ref: 008682

Closing date: 15 June 2014.

Roman.Biek@glasgow.ac.uk

GoetheU PhD PDF Biodiversity

PhD:

The Institute for Ecology, Evolution and Diversity at the Goethe University Frankfurt (Germany) is inviting applications for a

PhD position in Movement Ecology (E13 TV-G-U, 65%-part-time)

at the Biodiversity and Climate Research Centre, Frankfurt (BiK-F). The BiK-F provides a new, dynamic research environment that integrates a variety of disciplines from both natural and social sciences.

This advertisement is for a 3-year position in the working group of Thomas Mueller and is funded by the Robert Bosch Foundation. The aim of the PhD project is to better understand how ungulate movements relate to underlying resource dynamics and to anthropogenic landscape changes. The project examines ungulate movements in the drylands of Mongolia that are increasingly affected by movement barriers through infrastructure projects and climate change. The position will involve modeling of movement and vegetation dynamics and could also include fieldwork.

The candidate should have a degree in ecology or a related field and a strong quantitative background. She or he should have expertise in statistical analysis and in programming (especially R). Experience in using remote sensing data for habitat and species distribution models or in modeling of animal relocation data are a plus.

To apply for the position, please email a cover letter, CV, and the names and email addresses of two references in a single .pdf file to: thomas.mueller@senckenberg.de; Review of applications will begin 4 June 2014 and will continue until the position has been filled.

PostDoc:

The Institute for Ecology, Evolution and Diversity at the Goethe University Frankfurt (Germany) is inviting

applications for a

Postdoctoral position in Movement Ecology (E13 TV-G-U)

at the Biodiversity and Climate Research Centre, Frankfurt (BiK-F). The BiK-F provides a new, dynamic research environment that integrates a variety of disciplines from both natural and social sciences.

This advertisement is for a 3-year postdoctoral position in the working group of Thomas Mueller. The researcher will participate in existing projects and develop own research efforts on understanding animal movements from relocation data. Projects focus on disentangling the underlying navigational mechanisms of animal movement, linking movement behaviors to ecosystem functioning, and identifying conservation challenges related to animal movement. The position is funded by the Robert Bosch Foundation and research will be conducted in close collaboration with the working groups of Katrin Böhning-Gaese (also BiK-F) and Bill Fagan (University of Maryland).

The candidate should have expertise in statistical analysis and modeling of animal relocation data. In addition, good computational skills with knowledge in various programming languages, especially R, are required. Experience in using remote sensing data for habitat and species distribution models as well as in geo-spatial analyses are desirable. The successful candidate will have a PhD, likely in quantitative ecology or a related field and a strong publication record. Prior postdoctoral experience is beneficial, but not required.

To apply for the position, please email a statement of research goals, CV, and the names and email addresses of three references in a single .pdf file to: thomas.mueller@senckenberg.de; Review of applications will begin 4 June 2014, and will continue until the position has been filled.

Thomas Mueller Junior Professor for Movement Ecology and Biodiversity Conservation

Biodiversity and Climate Research Centre (BiK-F) and Department of Biological Sciences, Goethe-University Frankfurt Visiting address: Georg-Voigt-Straße 14-16, room 2.12 Postal address: Senckenberganlage 25 60325 Frankfurt, Germany office: +496975421889 mobile: +4915787822229

Thomas Mueller <muellert@gmail.com>

Hobart Australia Marine Adaptive Change

Anthropogenic climate change is already modifying the ocean with natural systems particularly vulnerable. In response to climate change, species will have to adapt or die. This project will address the question: 'How much capacity for adaptive change do marine species have under current and projected rates of climate change?' We propose to use cutting edge genomic techniques to investigate capacity in marine phytoplankton - the base of the marine food chain. We have access to culture strains maintained at the Australian National Algal Culture Collection and with international partners.

Specifically you will:

- 1) Carry out common 'garden pot experiments' to evaluate the performance of 3-4 representative strains of 3 different phytoplankton species under predicted future and control present conditions of temperature and pH.
- 2) Carry out custom designed whole genome microarray analysis and/or high throughput transcriptome sequencing to identify up/down regulated metabolic processes in the short/medium term responses.
- 3) Quantitative Trait Locus crossing and back-crossing experiments between strains with different adaptation phenotypes to map the major genes encoding the traits.

Location: Hobart, Tasmania (Australia) Salary: AUD78K - AUD88K plus up to 15.4% superannuation (pension fund) Tenure: 3 years Ref No: TAS14/01326

To be successful you will have:

- 1) A PhD with skills in the relevant discipline area, such as microbiology, genomics and/or bioinformatics;
- 2) High level communication skills, publications, and the ability to work effectively in a team;
- 3) Experience with genomic methods for micro-organisms;
- 4) Experience with data handling and analysis of genomic/transcriptomic microarray and high throughput sequencing data, using a range of tools.

The successful appointee must have completed, or will shortly complete, the requirements for a PhD degree in a relevant scientific discipline. Owing to terms of the fellowship, candidates must not have more than 3 years of relevant Postdoctoral experience.

The Commonwealth Scientific and Industrial Research Organization (CSIRO) is one of the largest and most

diverse scientific organizations in the world. By igniting the creative spirit of our people, we deliver great science and innovative solutions that benefit industry, society and the environment.

Applications are open to Australian Citizens, Permanent Residents and International candidates. Relocation assistance will be provided if required.

Find out more! For further information please visit our website at CSIRO Careers:

<http://www.csiro.au/people/Careers> choose "Positions Vacant" then "Jobs Search" and insert Reference Number SA14/01098 where indicated, or link directly to:

<http://csiro.nga.net.au/cp/index.cfm?event=-jobs.viewJobDetailsNewApplication&AccessibilityMode=true&CurATC=EXT&CurBID=62afb35d-9273-4a11-8dcc-9db401354197&jobid=6780ffb-3773-450d-85e8-7fb7f96c2e31&returnToEvent=-jobs.home&persistVariables=-CurATC,CurBID,jobid,returnToEvent&lid=-60639850006> Position closes 15 June 2014.

DrOwain Edwards Program Leader | Evolutionary Biology Principal Research Scientist CSIRO Ecosystem Sciences Underwood Avenue, Floreat WA 6014| Clunies Ross St, Canberra, ACT 2601

Phone: +6189333 6401 (Perth)| +6126246 4514 (Canberra)| Mobile: 0438877 180
owain.edwards@csiro.au

Owain.Edwards@csiro.au

INRA Sophia Selection-BiologicalControl

Post-Doctoral Position in Biological control: Intraspecific variability and improvement of a hymenopteran biological control agent.

INRA Sophia Antipolis (France) is looking for a post-doctoral fellow to lead research and development activities in biological control, on the improvement of a biocontrol agent species.

The successful candidate will work within the consortium involved in the European Commission project FP7-IAPP 'Colbics' (industry/academia collaboration on biological control using macro-organisms): Institut National de la Recherche Agronomique (France), Universidad Politecnica de Valencia (Spain), Universidad

Catolica de Chile (Chile), Biobest (Belgium), InVivo Agrosolution (France), ANASAC (Chile).

The fellow will carry out a R&D programme aiming at comparing and selecting populations of a biological control agent (Hymenoptera) to finally develop a high-performance biocontrol solution. Main activities will consist in: - Measuring performance-related phenotypic traits in populations to be compared. - Setting up experimental designs to measure proxies of pest control efficiency. - Setting a selection programme to improve performance-related phenotypic traits of the target biological control agent. - Advising students involved in laboratory, semi-field and field experiments. - Analysing and summarizing results and write internal reports and scientific publications.

They will be performed in very tight collaboration with the French enterprise InVivo Agrosolutions. Main contacts: Thibaut Malausa (tmalausa@sophia.inra.fr), Nicolas Ris (ris@sophia.inra.fr), Julien Séguret (jseguret@invivo-group.com)

The ideal candidate will have: - High motivation for experimental work in laboratory, semi-field and field conditions. - Experience in ethology, phenotypic measurement in arthropods and work on live organisms. - Experience and/or knowledge in processes of animal selection. - Curiosity, inventiveness and observation skills. - Motivation and skills for teamwork, at the interface between public and private sectors. - Capacity to adapt to multi-language work environment (French, English, Spanish). - Basics about insect taxonomy, especially Hymenoptera. - Skills in data analysis, statistics and basic bioinformatics. - Published works (in peer-reviewed international journals) and high skills in scientific writing.

Candidate Eligibility Criteria (following FP7-IAPP rules): (1) PhD Degree. (2) Full-Time Research experience between 4 and 10 years since the Master Degree (or equivalent degree that enables to embark a PhD). (3) Less than 12 months spent in France since August 2011.

Contractual conditions: - Full-time contract. - Employer: Institut National de la Recherche Agronomique. - Duration: 24 months. - Contract starting date: From August 2014. - Gross salary: 4,500 EUR (net salary around 3,500 EUR). - Work place: Sophia Antipolis, France (near Antibes and Nice, Southern France).

Instructions to applicants: (1) Eligibility Check (Deadline 20th of June, 2014): Applicants are asked to fill the online form at <https://enquetes.inra.fr/-index.php?sidd461&lang=en>; (2) Preliminary Selection: Eligible candidates will be asked to answer a short

questionnaire and to provide a detailed C.V. (3) Final selection: up to 4 candidates will be interviewed.

tmalausa@sophia.inra.fr

KansasStateU EcoPhysiologicalGenomics

POSTDOC IN ECOLOGICAL/PHYSIOLOGICAL GENOMICS

I am seeking a postdoctoral researcher to work on some combination of laboratory, field, and bioinformatics projects related to adaptation genomics, with an emphasis on thermal and seasonal ecology. Projects in the lab focus on discovering genetic variants that contribute to rapid evolutionary divergence and speciation among populations and statistically modeling the physiological networks that transduce genotypes to adaptive phenotypes. Phenotypes of interest include life history timing (insect diapause), thermal stress resistance, and capacity to exploit novel resources, especially in the context of environmental change. Experimental approaches span field ecology, genomics, transcriptomics, and organismal physiology, and rely heavily upon informatic processing and statistical modeling of large, next generation sequencing data sets (<http://www3.nd.edu/~gragland/>). Some portion of the work to be performed will include NSF-funded research on the genetic and physiological modularity of evolving life history components in the apple maggot fly, a model system for rapid adaptation and sympatric speciation. This project is an ongoing collaboration with Jeff Feder at Notre Dame and Dan Hahn at the University of Florida, and opportunities for cross-disciplinary training in these labs may also be available. The postdoc will also have the opportunity to perform independent research according to his or her own interests and specific training.

Candidates must have a PhD in a biological discipline, statistics, or computer science, and a proven record of publication in ecological or evolutionary biology. Ideal candidates will have a background in both molecular laboratory techniques and Linux/scripting languages (e.g., R, Perl or Python), though strong candidates in either area will be considered. Salary will be competitive, and commensurate with experience. The initial appointment is for one year, but up to three years of funding are available based on satisfactory annual progress.

The Department of Entomology at Kansas State University includes a number of strong research programs that blend basic research in life history ecology and evolution, physiology, and genetics with critical applied research targeting disease vectors, crop pests, and biocontrol agents. University-wide, K-state has excellent resources, housing the Ecological Genomics Institute (<http://www.ecogen.ksu.edu>), and the Arthropod Genomics Center (<https://www.k-state.edu/agc/>). Kansas State University is located in Manhattan, Kansas, a mid-sized, family-friendly college town with excellent schools, parks, a farmer's market, and a good selection of restaurants in 'Aggieville' and downtown. Manhattan is located in the Flint Hills region of Kansas, and outdoor opportunities include nearby Tuttle Creek Lake, running and cycling trails, and Konza Prairie, a large tall grass prairie reserve and LTER site.

Please direct inquiries to gragland@ksu.edu. Include a cover letter, brief statement of research interests, experience, and goals, CV, and names and contact information for three references. Full consideration will be given to all applications received by 15 June, and review will continue until a suitable candidate is found. I will be at the Evolution meetings in June, and would be happy to meet to talk more about the position.

Greg Ragland Assistant Professor Department of Entomology 123 W. Waters Hall Kansas State University Manhattan KS 66506-4004 PHONE: (785) 532-6139 <http://www.nd.edu/~gragland/> Gregory.Ragland.3@nd.edu

LouisianaStateU Phylogenetics

A postdoctoral researcher position is available in the computational evolutionary biology lab of Jeremy M. Brown at LSU. Research in the Brown lab is broadly centered on the use of phylogenetic approaches to understand organismal history and molecular evolution. This position is part of a project funded by the National Science Foundation to develop and apply a suite of related statistical approaches for assessing the fit of stochastic models to sequence and trait data. The goal of this work is to identify when phylogenetic and comparative inferences might be compromised by poor model fit.

The Brown lab will be collaborating extensively on this project with the lab of Bob Thomson at the University of Hawaii - Manoa, as well as the developers of

RevBayes and the authors of various R comparative methods packages. Informal inquiries are strongly encouraged and can be directed to jembrown@lsu.edu. Start date is flexible. More information on the Brown lab is available at <http://www.phyleauxgenetics.org/>. LSU's Dept. of Biological Sciences has a particular strength in computational evolutionary genetics. LSU continues to invest heavily in the computational sciences, with a recent focus on computational biology. Outstanding resources are available through the Center for Computation and Technology (<http://www.cct.lsu.edu/home>) and the Louisiana Optical Network Initiative (<http://www.loni.org/>).

Baton Rouge is located in South Louisiana, one of the most culturally unique locations in the United States (<http://louisianatravel.com/>). The surrounding area has excellent food, music, festivals, and outdoor recreation. LSU's campus is just over an hour's drive from New Orleans and allows easy access to much of the Gulf Coast.

Responsibilities: Work with computational biologists to write software, in collaboration with developers of RevBayes and various R comparative methods packages. Also responsible for testing new methods by analyzing simulated and biological exemplar data sets. Required Qualifications: Ph.D. or equivalent degree in Evolutionary Biology, Computer Science, Statistics or a related discipline; previous experience with programming and phylogenetic analyses. Additional Qualifications Desired: Previous software development experience as part of a team; programming experience using C++ and R; previous experience writing and publishing scientific manuscripts in peer reviewed journals. An offer of employment is contingent on a satisfactory pre-employment background check. Application deadline is May 23, 2014 or until a candidate is selected. Apply online and view a more detailed ad at: www.lsusystemcareers.lsu.edu. Position #022018

LSU IS AN EQUAL OPPORTUNITY/EQUAL ACCESS EMPLOYER

Quick link at ad URL: <https://lsusystemcareers.lsu.edu/applicants/Central?quickFind=57641>

Jeremy M. Brown Assistant Professor Louisiana State University Dept. of Biological Sciences 202 Life Sciences Building Baton Rouge, LA 70803

(225) 578-1745

<http://www.phyleauxgenetics.org/> jembrown@lsu.edu

MNARS MaxPlanck PhD PDF EvolutionAging

Job announcement for

Doctoral Fellowships (3 years) Postdoctoral Fellowships (2 years) in aging research The MaxNetAging Research School (MNARS) is seeking applications for Doctoral and Postdoctoral Fellowships, starting in February 2015.

MNARS is an international graduate program launched by the Max Planck International Research Network on Aging (MaxNetAging). The program focuses on topics of aging ranging across the full spectrum of the behavioral and social sciences, biology, law and the humanities. Each fellow enrolled in the MNARS will be affiliated with one participating Max Planck Institute. During the first six months of the MNARS all doctoral and postdoctoral fellows will study together at the Max Planck Institute for Demographic Research in Rostock. Please visit www.maxnetaging.mpg.de for more information on the program and the participating Max Planck Institutes.

Applications should include

- * a CV
- * a short statement on the level of job you are seeking (as doctoral or postdoctoral student) and which MPI (and if possible with what research group/s) you would like to be affiliated with
- * a letter of motivation (Why do you want to join the MNARS? What are your main research interests, career goals...?)
- * details of qualifications, including information about honors, awards, or evaluations of your educational degrees (e.g., "cum laude")
- * a list of publications, if any
- * names and addresses of 2 people we can contact about you
- * for postdoctoral fellows a brief outline about your research agenda in the upcoming two years

The Max Planck Society wishes to increase the share of women in areas where they are underrepresented, and strongly encourages women to apply. The Max Planck Society is committed to employing more handicapped individuals and especially encourages them to apply. Applications should be addressed to the MaxNetAging Director Prof. James W. Vaupel and sent by e-mail at the latest by July 25, 2014 to aplmnars@demogr.mpg.de. E-mail inquiries concerning the application process and other aspects of MNARS should also be sent to aplmnars@demogr.mpg.de.

Thanks.

Best wishes, Annett

Annett Döpke Secretary Max Planck Institute for Demographic Research Konrad-Zuse-Str. 1 D-18057 Rostock Germany <mailto:doepke@demogr.mpg.de> <http://www.demogr.mpg.de> Tel. +49 (0) 381 / 2081 133 Fax +49 (0) 381 / 2081 433

"Doepke, Annett" <Doepke@demogr.mpg.de>

MaxPlanckInst Ploen EvolutionaryTheory

In the newly established Department for Evolutionary Theory at the Max-Planck Institute for Evolutionary Biology in Plön, we have several openings (2-3 years) for

Postdoctoral Researchers

Specific research projects are flexible and can be tailored to the interests of the applicant, as long as they fall into the broad area of evolutionary theory and allow collaborations within the group or the institute. In particular, projects that open possibilities for collaborations with experimental groups are encouraged. So far, our research interests range from evolutionary game theory and the somatic evolution of cancer to population genetics and cultural evolution.

Requirements for the position include a strong record of self-motivated research (supported by peer-reviewed publications), a PhD in theoretical biology, theoretical physics, applied mathematics, or a related area, excellent analytical and computational skills and a strong interest in evolutionary biology.

The postdoctoral fellowships provide a competitive annual stipend. Start date and term are negotiable. Highly motivated applicants of any nationality are encouraged to email a motivation letter including a statement of research interests a CV and selected publications in a single pdf file to EvoTheoApplications@evolbio.mpg.de. Please also provide two addresses for potential letters of reference. Screening of applications will start on May 31st.

The Max-Planck Institute for Evolutionary Biology is located in Plön, a small town in a beautiful lake area with all the amenities of a touristically active area. The Baltic sea and the major university cities Kiel and Lübeck are only 30 minutes away. Frequent train con-

nections allow to commute from either city. We offer an interdisciplinary and international environment which is driven by scientific curiosity and not by funding or administrative restrictions. The working language at the institute is English.

Arne Traulsen <http://www.evolbio.mpg.de/~traulsen/>
Max-Planck-Institute for Evolutionary Biology Department for Evolutionary Theory August-Thienemann-Str. 2 24306 Ploen Germany

traulsen@evolbio.mpg.de

MaxPlanckInst Tuebingen HerbariumGenomics

Max Planck Institute for Developmental Biology, Tuebingen

Evolutionary genetics and genomics

Bioinformatics

A postdoc position is available in the newly formed Herbarium Genomics group at the Max Planck Institute for Developmental Biology. Scientific focus is the generation and analysis of DNA sequences from both present-day and historic samples (herbaria and archaeological remains) to address evolutionary questions in three main research avenues:

- Identification and timing of key events in plant domestication
- Colonization of new ecological niches by invasive or introduced species
- Plant-pathogen epidemics in recent history

Initial appointments are normally for 2 years. The position is available immediately.

Candidates will have demonstrated experience in next generation sequencing analyses and strong computational skills, including proficiency in at least one major programming or scripting language and use of a Linux/Unix environment. A good understanding of molecular and evolutionary biology, statistics and proficiency in R is a plus.

Our research is highly interdisciplinary and greatly benefits from an interactive environment with computational biologists, molecular biologists and evolutionary geneticists for daily discussions on campus. The working language is English. We work closely with local experts in plant genomics and an-

cient DNA, Detlef Weigel at the MPI and Johannes Krause at the University of Tuebingen, as well as a series of collaborators with expertise in plant pathology, taxonomy and archaeology. Additional information on the group, the institute, and Tuebingen can be found on our website (<http://www.weigelworld.org/-research/projects/herbariumgenomics>).

Please send applications with CV, statement of interest, name of 2 references and the subject line <herbarium genomics postdoc> to: hernan [DOT] burbano [AT] tuebingen [DOT] mpg [DOT] de

Incomplete applications will not be considered.

Dr. Hernan A. Burbano

Group Leader

Max Planck Institute for Developmental Biology

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Dr. Hernan A. Burbano Group Leader - Herbarium Genomics Department of Molecular Biology Max Planck Institute for Developmental Biology Spemannstr. 37-39 Tuebingen, D-72076, Germany Phone: +49-7071601-1414 email: hernan [DOT] burbano [AT] tuebingen [DOT] mpg [DOT] de <http://www.weigelworld.org/-research/projects/herbariumgenomics> hernan.a.burbano@googlemail.com

MichiganStateU EvolutionaryPlantGenomics

The soon to be established Lowry lab in the Department of Plant Biology at Michigan State University (MSU) is looking to hire a Postdoctoral Research Associate starting as soon as August 15, 2014. The research of the Lowry lab is centered on identifying the genetic and genomic mechanisms of ecological adaptations and how those adaptations contribute to the formation of new species. The successful candidate will be provided with many opportunities to interact with the excellent community of evolutionary biologists (<https://-eebb.msu.edu/faculty.pl?list=RA&sublist=1>) and plant scientists (<http://www.plantbiology.msu.edu/>) at Michigan State University.

Research Program Description: Water availability is one of the most limiting factors for crop production and the fundamental factor governing the composition of plant communities globally. The frequency and intensity of drought has also long been known to be an

important selective agent during the evolution of plant species. Therefore, the Lowry lab is particularly interested in understanding how differences in water availability between habitats contribute to adaptive divergence and reproductive isolation.

To understand the physiological, developmental, and genetic mechanisms of adaptive divergence between plant populations, the Lowry lab is focused on research in two major emerging model systems for evolutionary genomics: Monkeyflowers (*Mimulus*) and *Panicum* grasses, including the bioenergy crop switchgrass. Two large communities of collaborative scientists have established extensive genomic and molecular biology resources for these systems. The evolution of wet and dry habitat adapted ecotypes has occurred in both *Mimulus* and *Panicum*, and so these systems are ideal for understanding the parallel evolution of adaptive divergence in response to soil water availability.

For more information, please see: <http://davidbryantlowry.wordpress.com/> *Required Qualifications:* PhD in a field related to Evolution, Genetics, Genomics, Bioinformatics, and/or Plant Biology at the time of hire.

Highly Desired Qualifications: Experience programming for biology, especially in relation to genomic analyses. Experience with analyzing RNA-sequencing and whole genome sequencing data.

Desired Qualifications: Experience with making genomic libraries for Illumina sequencing. Molecular biology and/or plant ecophysiology skills. General interest in evolution, genetics, and plant biology.

To Apply: Potential candidates interested in working on ecological and evolutionary genomics of *Mimulus* and/or *Panicum* should send a one page research statement, CV, and list of three references to David Lowry at davidbryantlowry@gmail.com.

David Bryant Lowry

Assistant Professor (Starting August 2014)

Department of Plant Biology

Michigan State University

Email: davidbryantlowry@gmail.com Phone: 908-723-3534

David Lowry <davidbryantlowry@gmail.com>

Moncton New Brunswick Fish Genomics

Postdoctoral Fellowship in fish genomics - aquatic animal health

NSERC Visiting Fellowships in Canadian Government Laboratories

Applications are solicited for 1 postdoctoral fellowship position with the possibility of a second position available in the near future to carry-out projects investigating fish genomics, viral evolutionary mechanisms and host-disease interactions. Current funding for these fellowships is 1 year with the possibility of extension for up to 2 more years

The projects consists of using a genomics approach to explain perceived differences in the susceptibility of wild versus farmed Atlantic salmon to viral diseases. Further, the projects will investigate the phylogenetic relationship of the various viral strains and the evolutionary mechanisms controlling their adaptation.

The successful candidate will have significant experience in computational genomics and be proficient in using bioinformatics tools for the analysis of RNASeq and RADSeq data generated from next generation sequencing technologies. Experience in phylogenetics and viral evolution, as well as experience in performing in vivo fish disease challenges and NGS DNA library preparation will be considered an asset.

The candidate must be fluent in the English language (oral and written) and possess excellent communication skills (indicated by the ability to write scientific papers and deliver presentations).

Note that while the working environment is bilingual french/english, unilingual candidates are welcomed.

Additional requirements are: - Completed PhD (i.e. must not be pending) in relevant biological field of study - A strong interest in aquatic animal health and/or fish genomics

The lead scientists on the projects are Nellie Gagné and Dr. Mark Laflamme which run the Molecular Biology Unit (MBU) lab in DFO Moncton and undertake research activities supporting aquatic animal health within the National Aquatic Animal Health Program

Location: Fisheries and Oceans Canada, Moncton, New Brunswick

Start date: Position available in early fall, but is contingent upon receiving projects funding.

Salary: The successful candidate will be hired through NSERC's Visiting Fellowships in Canadian Government Laboratories Program. Stipend funding is approx. \$49 500 CAD per annum. As soon as possible upon their selection they will need to complete the application process to become eligible for hiring. For more information, see http://www.nserc-crsng.gc.ca/Students-Etudiants/PD-NP/Laboratories-Laboratoires/index_eng.asp including the Award Holder's Guide.

Closing date for applications is August 15th 2014

Applicants should provide the following information

1. A current resume detailing relevant experience and competencies. 2. A cover letter clearly demonstrating how the candidate meets the education and experience requirements of the position. 3. Names and contact information for three references.

To: Nellie Gagne Research scientist Molecular Biology Unit Fisheries and Oceans Canada 343 University Ave. Moncton, NB E1C 9B6

Telephone: 506 851-7478 Email: nellie.gagne@dfo-mpo.gc.ca

"LeBlanc, Francis" <Francis.LeBlanc@dfo-mpo.gc.ca>

Oxford PopulationGenetics

Population and statistical genetics posts in Oxford Group of Gil McVean, Wellcome Trust Centre for Human Genetics Grades 7 and 8: Salary range £29,837 - £45,053 with a discretionary range to £49,216 p.a.

Up to four posts are available to work on population and statistical genetics theory, methodology and application in the group of Gil McVean at the Wellcome Trust Centre for Human Genetics (WTCHG) Oxford; see <http://www.well.ox.ac.uk/gil-mcvean> . Posts are available to work across a range from projects including: 1. The comparative study of mutation and recombination rates in vertebrates through whole-genome sequencing of individuals in extended pedigrees. 2. Characterisation of patterns of genetic variation within the HLA region and the analysis of host-pathogen interactions. 3. Methods for analysing patterns of haplotype structure in very large sample sizes (>100,000) with application to large-scale data sets being gener-

ated within the UK. 4. Graphical methods for describing genome reference variation with application to improved characterisation of high diversity regions of human and pathogen genomes using high throughput sequencing.

You will help in the design of experiments, the development of statistical and computational methods for analysing data, interpretation of project data, the dissemination of methodology and results, and participate in collaborations with specific partners and international consortia. Where appropriate, more senior appointees with help with the supervision of junior posts.

You will have a PhD with a strong quantitative or computational element, a good publication record and skills in statistical programming (preferentially R). You should have experience of analysing large data sets and experience of scripting (Python or Perl). We are looking for people with a range of skills and expertise, from population genetics theory to software development.

The positions are funded by the Wellcome Trust and are fixed-term for 3 years in the first instance.

How to apply Applications for this vacancy are to be made online. You will be required to upload a CV and supporting statement as part of your online application.

For more information, please see the following sites: Junior posts: https://www.recruit.ox.ac.uk/pls/hrsliverecruit/erq_jobspec_version_4.jobspec?p_id=112693 Senior posts: https://www.recruit.ox.ac.uk/pls/hrsliverecruit/erq_jobspec_version_4.jobspec?p_id=112808 Please contact mcvean@well.ox.ac.uk for additional information.

Gil McVean Professor of Statistical Genetics Acting Director of the Oxford Big Data Institute Wellcome Trust Centre for Human Genetics Roosevelt Drive Oxford OX3 7BN UK

Tel (WTCHG): +44 1865 287534 Tel (Statistics): +44 1865 281881 PA Emma Jones: emma@well.ox.ac.uk +44 1865 287506 web: <http://www.well.ox.ac.uk/gil-mcvean> mcvean@well.ox.ac.uk

Paris EvolutionaryEcol

Post-doc position in Evolutionary Ecology/Theoretical Ecology in Paris *"Collective decision making and resources allocation: modelling

and experimental test using *Cataglyphis cursor* ants”*

Decision making is critical to all organisms. It is of particular interest in social species where (1) group-level decisions emerge from complex interactions between numerous individual-level decisions, and (2) conflicts of interest may exist between individual- and group-levels. We propose to study how decisions coincide between group and individual levels regarding resource allocation to reproduction, by combining theoretical and empirical approaches. We will implement models of general relevance, and use ants for empirical testing. Our ultimate aim is to determine how the optimal group size is determined by the environmental and spatial context in which the population lives.

The modelling work will aim at determining the optimal decisions related to (1) investment in reproduction, (2) group size and (3) number of propagules produced. These three components of the decision process depend on social interactions and on environmental constraints. Using game theoretical and adaptive dynamics methods, we intend to determine how the optimal decision depends on the local environment, the spatial variations in the environment, and the predictability of environmental fluctuations.

The second part of the project will consist in experimental testing of the predictions born from the theoretical investigation. We will use the ant **Cataglyphis cursor**, which we are familiar with and which presents an interesting variability in decisions related to resource allocation. Its colonies produce 2 to 7 offspring colonies, to which they allocate 3 to 71% of their workers each. We will manipulate resources availability and competition intensity in semi-natural enclosures and in the field, to study reproductive allocation in either stressful or benign environments.

*Application Process *

The post-doctoral fellow will work at IEES Paris (Institute of Ecology and Environmental Sciences of Paris, <http://ieesparis.ufr918.upmc.fr/?lang=en>). 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 work in collaboration with Thibaud Monnin and Nicolas Loeuille and will be part of the team “Social Interaction in Evolution” (<http://ieesparis.ufr918.upmc.fr/-spip.php?article269>). The project also involves a collaboration with Claudie Doums (“Origin, Structure and Evolution of Biodiversity”, team “Integrative Population Biology”, <http://isymb.mnhn.fr/DOUMS-Claudie-378>).

The post-doctoral position will particularly focus on

the theoretical developments proposed in the abstract above. We welcome applications from candidates with a PhD in ecology or evolutionary biology, and 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 post-doc fellow will also participate to the experimental set-up of the project.

The position is funded for a year, with a possible extension for an additional year. Gross salary is ca 2700/month depending on experience. Applications will be considered until the position is filled, but the desired starting date is 01/09/14.

To apply, send a CV and a letter expressing why the project interests you to Nicolas Loeuille (nicolas.loeuille@upmc.fr) and Thibaud Monnin (thibaud.monnin@upmc.fr), and have two researchers you collaborated with send us reference letters.

Dr Thibaud MONNIN Institut d’Écologie et des Sciences de l’Environnement de Paris UMR 7618, Département Écologie Évolutive, Université Pierre et Marie Curie, 7 quai St Bernard, Case 237, 75 252 Paris Cedex 05, France Tel: +33 (0) 1 44 27 36 10; Fax: +33 (0) 1 44 27 35 16 e-mail : thibaud.monnin@upmc.fr pages web : <http://ieesparis.ufr918.upmc.fr> & <http://-ecologie.snv.jussieu.fr/monnin/index.html>

Paris6U MicrobialEvolution NetworkBioinformatics

Hello,

Please find below the description of a postdoctoral position to ‘Search for common genetic goods in gene families and microbial communities

The theory of genetic public goods recently postulated that genetic sequences can be exploited in various combinations, even by distantly related or unrelated evolving entities, i.e. microbial communities benefiting from the sharing of genes between their members, such as photosynthesis genes between cyanophages and cyanobacteria, or such as drug resistance genes within multispecies biofilm. Yet, the nature, size and diversity of microbial communities sharing such genetic goods remain poorly known. Moreover, the rules of gene sharing also remain to be described.

A wealth of molecular data from metagenomic, single cell metagenomic, and microbial genomes projects is

now available to tackle these fundamental issues. Furthermore, sequence similarity networks offer a promising complementary niche to phylogenetic methods to exploit the complexity of these data. These graphs allow for mathematical analyses of genetic diversity and similarities over dozens of millions of sequences, providing novel ways to detect clubs of genomes, which have not necessarily evolved from a single last common ancestor yet exploit some common genetic material. Likewise, these networks allow for the detection of some sets of gene families that exploit common pools of genetic fragments/domains.

To further develop the detection strategies of genetic public goods, our lab is now looking for a post-doctoral fellow in bio-informatics, who will be funded for up to three years by an ERC grant (for a salary of 45,000 euros/year; approximately 2219 euros/ month after taxes). The candidate will take advantage of graph properties and algorithms from the graph theory: - to improve the identification of clubs of genomes /sets of gene and their pool of genetic goods in complex networks with a few millions nodes and dozens of millions of edges; - to analyze domains combinations in genes and gene sharing in communities, using bipartite graphs. - He/she will then analyze the functions of these genetic goods and their distribution across genes and genomes to test what lifestyles favors their sharing.

The candidate will work within a consortium of friendly bioinformaticians (Philippe Lopez), evolutionary biologists (Eric Baptiste), and graph theorists (Michel Habib, Laurent Viennot), and be hosted in the University Pierre and Marie Curie in the center of Paris, France. The current team description and publications can be found at: <http://www.evol-net.fr/> Ideally, the candidate should have a good background in bio-informatics, or graph theory and a strong interest for evolutionary biology. The position will start by November 2014, but interested candidates are invited to apply immediately.

Applicants are requested to send a detailed resume, a motivation letter, a pdf copy of their masters thesis, and the names of two scientific referees to : eric.baptiste@snv.jussieu.fr

The applications will be closed October 15, 2014.

Eric Baptiste <epbaptiste@gmail.com>

Roscoff France SeaweedPopGenomics

Dear all,

A two year postdoctoral research associate position is available immediately at the Roscoff Marine Laboratory in France (<http://www.sb-roscoff.fr/roscoff-marine-station>). The aim of the project is to study the process of seaweed domestication and relationships between crops and populations established in the wild in two cultivated kelp species. This position is funded in the context of the IDEALG project (<http://www.idealg.ueb.eu/>). Unlike many terrestrial plant species, almost nothing is known about domestication process in seaweed species.

The methodology is based on population genomic tools with the development of GBS (genotyping by sequencing) protocol. By analyzing a large number of SNPs we aim at 1) comparing cultivated and wild populations established over a diverse set of habitats and 2) delineating sampling units that are relevant for marker assisted selection and genes targeted by cultivation processes for the two kelps. The identification of genes of interest will be facilitated by haploid-diploid life cycle characteristics of seaweed models used: meiotic segregations can be studied directly by analyzing haploid offspring sired by the sporophytic individuals, providing direct estimates of allelic effects.

Applicants must have a PhD in evolutionary biology and expertise in population genomics. They must have a strong background in population genetics analyses and demonstrable experience in molecular biology and bio-informatic techniques applied to population analyses. No specific experience on algae or marine species is necessary.

This is a collaborative project between the Diversity and Connectivity in Coastal Marine Landscape group (<http://www.sb-roscoff.fr/en-divco>) and the Biodiversity and Evolution of Marine Algae Group (<http://www.sb-roscoff.fr/umi-3614.html>).

Salary will be 2000 EUR to 2500EUR per month (net) depending on experience.

Candidates should submit their CV together with a description of research experience, relevant publications and 2 letters of references to Frédérique Viard (viard@sb-roscoff.fr) and Myriam Valero (

roscoff.fr)

Consideration of applications will begin on 1 June 2014 and will continue until the position is filled.

For more information please contact Frédérique Viard and/or Myriam Valero.

Myriam Valero UMI EBEA 3614, Evolutionary Biology and Ecology of Algae CNRS, UPMC Sorbonne Université, PUCCh, UACH Station Biologique de Roscoff CS 90074, Place Georges Teissier 29688 Roscoff cedex

Tel : (+33) 2 98 29 23 28 E-mail: valero@sb-roscoff.fr
 site web: <http://www.sb-roscoff.fr/umi-3614.html>
 Valero Myriam <myriam.valero@sb-roscoff.fr>

Smithsonian Institution Invasion Ecology Metagenetics Bioinformatics

Postdoctoral Bioinformatics Fellowship: Genetic Analysis of Marine Invasions

Smithsonian Environmental Research Center & Moss Landing Marine Laboratories

Description: We seek a postdoctoral researcher in the area of bioinformatics for a project to characterize marine invertebrate (including plankton, fouling, and soft sediment) communities using both morphological and metagenetic approaches. The successful candidate will focus on processing and analysis of several genetic datasets, including comparisons with morphological analyses conducted in parallel, as part of a group research project.

Location: This position is with the Marine Invasion Research Lab, Smithsonian Environmental Research Center (SERC) in partnership with the Moss Landing Marine Laboratories (MLML) in Moss Landing, California. SERC is a research center of the Smithsonian Institution, with facilities on Chesapeake Bay, Maryland and San Francisco Bay, California (<http://invasions.si.edu/>). This position is most likely to be based in California, working jointly with laboratories of Jonathan Geller (MLML) and Greg Ruiz (SERC), but location is negotiable.

Education / Experience: PhD in bioinformatics, computer science, metagenomics, or a closely related field. Candidates with a background in Marine Biology, Ecology, or related field are especially encouraged to apply. Candidates must have (a) knowledge of molecu-

lar methods including next-generation DNA sequencing and analysis of metagenomic data, (b) Knowledge of marine invertebrates is desirable, but not required. Applicants must be organized, self-motivated, independent and pro-active. Strong communication skills and ability to work as part of a research team are required, as is a proven talent to write reports and publications. Experience giving presentations to various audiences (e.g., scientific conferences, agencies, and the public) is desirable. Some travel will be required.

Start Date: Position ideally to begin in July 2014. For full consideration, please submit application by 31 May 2014.

Salary: \$45,000 plus health benefits Duration: 1 year, with good prospect of renewal.

To Apply: Please submit current CV, letter describing research experience and interests, as well as contact information (names, phone numbers, and email addresses) for 3 references. Applications should be submitted to Laura Falsone, falsonel@si.edu, Smithsonian Environmental Research Center, P.O. Box 28, Edgewater, MD 21037 USA. Email submission preferred.

geller@mlml.calstate.edu

StockholmU PopulationGenomics

Post-doc position: Population genomics of plant mating system shifts

A two-year post-doc position in population genomics is currently available at Stockholm University, Sweden, in the research group of Dr. Tanja Slotte.

Background Plant mating systems, such as shifts from outcrossing to selfing, have profound effects on levels and structuring of genetic variation, and are expected to have a marked effect on the impact of natural selection. We are interested in quantifying the demographic and selective effects of mating system shifts using population genomic data. For a recent example of our work on this topic in *Capsella rubella*, see Slotte et al. 2013 *Nature Genetics* 45:831-5.

Project The post-doc will contribute to population genomic analyses of several parallel mating system shifts in the Brassicaceae. This will include investigating population structure, demographic shifts and assessing the impact of natural selection in populations and species that differ in their outcrossing rates. Whole-genome

and whole-transcriptome sequence data sets are already available, and more are currently being generated in the lab. The project offers plenty of opportunities for post-docs to pursue their own ideas using available genomic data.

Scientific Environment The Slotte lab (<http://tanjaslottelab.wordpress.com>) is part of the Dept. of Ecology, Environment and Plant Science, Stockholm University. We are located at Science for Life Laboratories in Stockholm (<http://www.scilifelab.se>), which holds considerable expertise in high-throughput sequencing technology and bioinformatics. The working atmosphere is international with English as the working language, and the position offers excellent opportunities for scientific exchange with both genomicists, evolutionary biologists and ecologists at SciLifeLab and Stockholm University. The city of Stockholm is known for its beauty, its buildings and architecture and its abundant clean and open water.

Qualifications We are looking for a post-doc with a strong background and interest in population genetics, and with the prerequisite bioinformatic skills to carry out analyses of population genomic data sets. Experience in next-generation sequencing analyses and strong computational skills are therefore a benefit, and candidates should have knowledge in at least one major programming or scripting language and be able to work in a Linux/Unix environment. A good understanding of statistics and proficiency in R is a plus. Candidates should have a PhD either in a field related to population genetics/evolutionary genetics or bioinformatics/computational biology.

Application Information The application deadline is the 20th of June, 2014. The position is available immediately, or as agreed upon with the successful candidate.

Applications should include: 1) a letter of interest / background (2 pages max), 2) complete CV, 3) the names and e-mail addresses of three referees.

Applications should be sent by e-mail to Tanja.Slotte@scilifelab.se with the subject line <population genomics position>.

Please feel free to contact me by email for more information about the position or questions about the project before submitting your application.

Tanja Slotte, Associate Senior Lecturer in Ecological Genomics Department of Ecology, Environment and Plant Sciences Stockholm University

Email: Tanja.Slotte@scilifelab.se Phone: +46-76-1252109 Website: <http://tanjaslottelab.wordpress.com>
Visiting Address: SciLifeLab Stockholm Tomtebodav.

23 a 171 65 Solna SWEDEN

Tanja Slotte <Tanja.Slotte@scilifelab.se>

TempleU DuplicateGeneRetention

Postdoctoral Research Associate: Mechanistic Birth-Death Models for Gene Duplication

Temple University

An NSF-funded postdoctoral research position is available for a collaborative project involving the research groups of David Liberles (Temple University from Fall, 2014; currently at University of Wyoming) and Liang Liu (University of Georgia). The position is guaranteed for 1 year with the possibility of extension and the successful candidate will be expected to relocate to Philadelphia, PA, USA.

The research project involves the construction of mechanistic models for duplicate gene retention and their implementation in a phylogenetic perspective in C++. The ideal candidate will have a strong background in mathematics and statistics, strong C++ programming skills, and experience with phylogenetic methods. Knowledge of evolutionary biology is a plus.

To apply, please send a cover letter that describes your background, motivation, and interests as well as a full CV to liberles@uwyo.edu. Please also arrange to have 3 letters of recommendation sent directly by the letter writer to the above email address as well. International applicants are encouraged to apply and will be given full consideration.

“David A. Liberles” <Liberles@uwyo.edu>

UAberdeen SongSparrowEvolution

Postdoctoral Research Fellow in Evolutionary Ecology School of Biological Sciences University of Aberdeen, UK

We seek a Postdoctoral Research Fellow in Evolutionary Ecology to join the research group of Dr Jane Reid at the University of Aberdeen, United Kingdom.

The post is central to a European Research Council-

funded project that aims to build new theory explaining the evolution and persistence of mating systems and reproductive strategies, and to test this theory using 20 years of complete life-history and pedigree data from free-living song sparrows (*Melospiza melodia*).

The Research Fellow will undertake statistical analyses of the long-term song sparrow dataset in order to elucidate patterns of variation in extra-pair reproduction in relation to temporal and spatial variation in population social structure and relatedness. They will work in close collaboration with Dr Reid, other members of the ERC project team and key international collaborators. They will have substantial flexibility to develop their own ideas and approaches to the overall problem, potentially including opportunities for fieldwork as well as data analysis.

The post provides an exciting opportunity for a highly motivated researcher with expertise in statistical analysis, mating system variation, evolutionary ecology and/or behavioural ecology, and interest in confronting evolutionary theory with data from wild populations. It provides an opportunity to work within a dynamic and successful international research team, with ample opportunities for further international collaboration, high-profile publication and career development (see <http://www.abdn.ac.uk/biologicalsci/staff/-details/jane.reid>).

Full details of the post and application procedure are available at <http://www.abdn.ac.uk/jobs/> Closing date for applications is June 30th 2014. Please contact Dr Jane Reid with any informal enquiries (jane.reid@abdn.ac.uk).

The post is funded by the European Research Council and will be offered for a period of 2 years subject to the usual terms and conditions of employment of the University.

Salary will be at the appropriate point on the Grade 6 (£30,728 per annum) with placement according to qualifications and experience. Consideration will be given to making an appointment at Research Assistant, Grade 5 level in the first instance (£25,759 - £28,972 per annum) for individuals in the final stages of completing their PhD.

Should you require a visa to undertake paid employment in the UK you will be required to fulfil the minimum points criteria to be granted a Certificate of Sponsorship and Tier 2 visa. As appropriate, at the time an offer is made you will be asked to demonstrate that you fulfil the criteria in respect of financial maintenance and competency in English. Please do not hesitate to contact Ms Sacha Nicol, HR Adviser, for further infor-

mation on this (sacha.nicol@abdn.ac.uk).

Dr Jane M. Reid

Royal Society University Research Fellow School of Biological Sciences University of Aberdeen

Tel: 01224 274224 Email: jane.reid@abdn.ac.uk

The University of Aberdeen is a charity registered in Scotland, No SC013683. Tha Oilthigh Obar Dheathain na charthannas clàraichte ann an Alba, Àir. SC013683.

“Reid, Dr Jane M.” <jane.reid@abdn.ac.uk>

UAlabama *Drosophila* Metabolomics

Postdoctoral Fellow in *Drosophila* Metabolomics

A postdoctoral position in the cutting-edge field of metabolomics is available in the laboratory of Laura Reed, within the Department of Biological Sciences at the University of Alabama. The Reed Lab is a highly interactive group that conducts research on the genetic basis of genotype-by-environment interactions contributing to metabolic disease and variation in *Drosophila*. Major areas of research include QTL mapping of loci interacting with diet to produce obesity and type-2 diabetes phenotypes, evolutionary genetics of complex traits, functional analysis of candidate genes for metabolic phenotypes, whole genome expression analysis of genetic and environmental variation, and metabolomic analyses.

This opening is for a highly motivated postdoctoral fellow with familiarity with *Drosophila* and some background in bioinformatic methods. The postdoc will work to facilitate the data curation and experimentation goals of the International *Drosophila* Metabolomics Curation Consortium (IDMCC, <http://flygxe.ua.edu/-metabolomics.html>) including working to expand publicly available tools such as MetScape 2.0 developed by researchers at the University of Michigan (metscape.ncibi.org, Karnovsky et al, 2012) and MetaCyc developed by researchers at SRI International in California (www.metacyc.org, Caspi et al, 2013) to incorporate *Drosophila* specific data. The postdoc will also work closely with the NIH Common Fund Metabolomics Data Center and Workbench (WDCW) at UC San Diego. While collating relevant data sources the postdoc will help identify critical gaps in the available knowledge needing further empirical work to fill, and would then have the opportunity to conduct some

of those studies.

All candidates must have received a Ph.D. in a relevant field.

The position is available for 2 years with the possibility of renewal contingent on securing external funding, and will include a competitive salary and full benefits.

A successful applicant will have:

Extensive research experience

Creativity and independence

Genetic or molecular lab experience

Computational or bioinformatics experience

Excellent communication skills, both written and oral.

Application review will begin May 15, 2014 and will continue until the position is filled. The successful applicant should be able to begin working in the position between August 15, 2014 and October 15, 2014.

Submit an application to the departmental postdoctoral pool <https://facultyjobs.ua.edu/postings/33497>. Materials should include:

1. Cover letter with a description of past research accomplishments and future research goals, (maximum of two pages) and the names and contact information for 3 references.

2. Curriculum vitae

Contact Dr. Laura Reed (lreed1@as.ua.edu) with questions regarding the position or application process. For further information about the Reed lab visit flygxe.ua.edu.

About the University of Alabama

The University of Alabama is the flagship campus of the University System of Alabama, with an enrollment of over 35,000 students. The University is committed to achieving excellence as one of the country's primary centers of research and education. It is located in the vibrant college town of Tuscaloosa, AL, which boasts many cultural and athletic activities. The campus also benefits from the close proximity to the Birmingham metropolitan community.

The University of Alabama is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

Laura K. Reed Assistant Professor Dept. of Biological Sciences University of Alabama, Tuscaloosa Office: 2330 SEC, Lab: 2322 SEC Mailing address: Box 870344, Tuscaloosa AL 35487

office: 205-348-1345 lab: 205-348-1368

lreed1@bama.ua.edu

<http://flygxe.ua.edu/>

lreed1@ua.edu

UArizona EcoEvolutionaryTheory ClonalInterference

-Postdoc position in eco-evolutionary theory -

A postdoc position is available to work with PI Joanna Masel (<http://eebweb.arizona.edu/faculty/masel>) at the University of Arizona in Tucson. A popular tourist destination surrounded on all four sides by mountainous national and state parks, Tucson is a vibrant city of nearly a million people with an attractive climate. The EEB department in Tucson was ranked in the top 10 by US News & World Report.

We seek to study evolutionary rescue in the presence of clonal interference, via a model of asexual population genetics (based on Desai & Fisher 2007). This model will be modified so that genotypes specify absolute fitness in a deteriorating environment, rather than relative fitness as is the norm in population genetics. The project will explore the integration of density-dependence terms r and K with the classical population genetics fitness term of w , as part of an eco-evo theoretical synthesis. A strong quantitative background together with computational and/or modeling experience is required. A background in evolutionary and/or ecological theory is strongly preferred.

The Masel group's main research interests <http://www.eebweb.arizona.edu/faculty/masel/research/index.html> are in robustness and evolvability, using a mixture of analytical theory, bioinformatic and simulation approaches. Contact Joanna Masel at masel@u.arizona.edu for more information and to apply. The position is available immediately and renewable over multiple years.

masel@email.arizona.edu

UCBerkeley LandscapeGenetics

A postdoctoral position in the Department of Environmental Science, Policy, & Management in the Division of Ecosystem Sciences will be available beginning early

Fall 2014 in the group headed by Professor Ian Wang. The postdoctoral scholar will be responsible for conducting research on the landscape genetics/genomics of amphibians and reptiles. Research activities will include spatial population genetics, analysis of genes underlying ecological divergence, computational modeling, and applications to species conservation. The postdoc will be expected to collect genomic data from field collected specimens, including DNA extraction, library preparation, and next-generation sequencing. The postdoc will also be expected to manage and analyze the data, employing bioinformatics, population genetic analysis, and methods for integrating spatial genetic and ecological data, and to compose the results into publishable manuscripts. Training and supervising undergraduates and beginning graduate students may also be periodically required. Opportunities to extend the postdoc's line of independent research may also be supported.

Minimum Qualifications: A PhD or equivalent in the stated areas is required by application date.

Preferred Qualifications: Candidates should have demonstrated experience with the collection and analysis of genomic data, including next-generation sequencing, data management, and bioinformatics. Experience with GIS software and analysis; experience with R, Perl, or another programming language; experience with simulations and analyzing simulated datasets; experience in performing field work with amphibians and reptiles; experience writing, publishing, and presenting original scientific work.

Salary and Benefits: The initial appointment is 100% time for one year, with renewal based on performance and funding availability. The salary range for this position is \$42,000 - \$45,432. Starting salary is commensurate with experience. The University of California offers a comprehensive benefits package including medical, dental, vision, short term disability, voluntary long term supplemental disability and life insurance. (<http://vspa.berkeley.edu/postdocs>).

To Apply: Visit <https://aprecruit.berkeley.edu/apply/-JPF00434>. Submit a cover letter, curriculum vitae, research statement and contact information for three professional references including name, email and address. Letters of reference will be requested for applicants considered finalists. Review of applicants will begin immediately; the deadline for application is June 25, 2014.

ianwang@berkeley.edu

UExeter ModellingMicrobeResistance

Postdoctoral position: Mathematical modelling of drug-resistance in microorganisms and cancers, University of Exeter

We are recruiting a Research Fellow to participate in an exciting interdisciplinary collaboration between a mathematical modelling groups of Dr Ivana Gudelj and Prof Robert Beardmore, University of Exeter, UK and Computational Biology and Oncology Departments at AstraZeneca, Cambridge. This position is available from 1st July 2014 for the period of 2 years. The successful applicant will contribute towards research that uses concepts from ecology and Darwinian evolution applied to micro-organisms, to understand the strength of natural selection in cancer cells.

The successful applicant will be working on the development and analysis of mathematical models in Dr Gudelj and Prof Beardmore's labs at the University of Exeter in close collaborations with colleagues at AstraZeneca, Cambridge. Applicants will possess a PhD in a quantitative discipline (mathematics, physics, engineering or computer science) and be familiar with ordinary differential equations, their use in modelling, analysis (Dynamical Systems techniques) and simulation. The successful candidate should be able to communicate effectively with individuals from a wide range of disciplines.

More information about the project and how to apply can be found at: <http://www.jobs.ac.uk/job/-AIU198/associate-research-fellow/> "Gudelj, Ivana" <I.Gudelj@exeter.ac.uk>

UFedSaoCarlos Brazil QuantGenetics

Another postdoctoral position (up to two years funding) is now available at the Universidade Federal de Sao Carlos (UFSCar) working with Reinaldo A. de Brito, in collaboration with Jason Wolf (University of Bath). The collaboration offers the opportunity for the postdoc to spend time in both Bath (UK) and Sao Carlos

(Brazil), with empirical components being done in Sao Carlos and computational work being split between institutions.

The project is focused on understanding the genetic architecture of species differences in South American fruit flies of the group *Anastrepha fraterculus* (Diptera: Tephritidae). The primary goal of the project is to understand the nature of variation underlying traits that distinguish species (including major ecologically relevant traits as well as traits potentially involved in mate recognition) and how the species differences relate to within species variation.

The postdoc will contribute to empirical and computational components of the project. Empirical work will involve implementation of multigenerational breeding schemes, phenotyping and next-generation genotyping. Computational work will involve genome scale analysis of associations using marker and sequence data.

This is a second post-doc opportunity associated with the project previously advertised. We expect that this position will be filled by July (to ensure that the full two years of funding is available). We are looking for people interested in discussing the details of the project and the application process. If you expressed interest in the previously advertised position and would like to be considered for this second position, please let us know and send an updated CV.

Please contact either one of us for more information or to express interest.

Reinaldo A. de Brito brito@ufscar.br CCBS- Depto de Genetica e Evolucao Universidade Federal de Sao Carlos

Jason B. Wolf Jason@evolutionarygenetics.org Dept. of Biology & Biochemistry University of Bath

brito@power.ufscar.br

UFlorida EvolutionEpigenetics

Postdoctoral position in Human Molecular Genetics/Epigenetics

A postdoctoral position (two years at least) is available in Connie Mulligan's lab at the University of Florida.

Two NSF-funded projects are currently ongoing and the successful candidate can work on one or both: 1) Examination of DNA methylation patterns in mothers

and newborns from the Democratic Republic of Congo (DRC) to test whether epigenetic alterations mediate the effects of maternal exposure to stressors on fetal development and neonatal health. Specifically, we are testing if epigenetic modifications may mediate changes in gene expression in infants or mothers that result from maternal trauma and material deprivation associated with the war in the DRC. More broadly, we are interested in the idea that behavior and complex phenotypes may be shaped by early life experiences that alter gene expression through epigenetic alterations. See <https://www.landesbioscience.com/journals/-epigenetics/2012EPI0162R-X.pdf> 2) Investigation of the genetic and cultural underpinnings of complex diseases that exhibit racial inequalities, using hypertension in African-Americans as a model phenotype. We are combining the analysis of genome-wide SNPs, genetic ancestry estimates, and epigenetic variation with sociocultural data including experience of discrimination and social network analysis. By combining genetic and socio-cultural data, our goal is a more comprehensive investigation of complex disease and racial disparities than is possible with only one type of data. See related study - <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0006821>

Qualifications: A PhD and a strong background in generation of genetic data (microarray analysis, DNA sequencing, SNP detection, etc.) and data analysis (gene association analysis, regression analysis, genetic ancestry estimation, linkage analysis, etc) are essential. Experience generating methylation data or additional computational experience (e.g. computer programming, simulation analysis, etc) is a plus. In addition to the projects listed above, there are excellent opportunities for the successful candidate to develop new lines of research as well as productive collaborations outside the lab.

The University of Florida is a leading research institution with a university-wide commitment to genetics research. The Department of Anthropology (www.anthro.ufl.edu) has 30 full-time faculty with diverse interests and a very strong biological subfield, with emphases on molecular, paleo, and forensic anthropology. The department is one of the top rated programs in the country (6th among public institutions, 11th overall). The University of Florida Genetics Institute (www.ufigi.ufl.edu) is an inter-college entity with a new research building intended to enhance opportunities for collaboration. Gainesville is located in north central Florida (away from the hurricanes!), with average temperatures ranging from 45F to 90F. Beaches on the gulf and Atlantic coast are ~ 1½ hours away.

To apply: via email, send a CV, a statement of research

interests, and the names and contact information (including email and phone) for three references. Applications and inquiries should be addressed to Connie Mulligan at cmulligan@ufl.edu.

Review of materials will begin immediately and will continue until the position is filled. Start date is flexible and can start as early as August, 2014. Salary is commensurate with experience. Position may be extended for a total of three years. Informal inquiries prior to submitting a formal application are welcome. AA/EOE.

Connie J. Mulligan, PhD Professor and Associate Chair, Department of Anthropology Associate Director, UF Genetics Institute 2033 Mowry Rd, PO Box 103610 | University of Florida | Gainesville, FL 32610-3610 Office: 409 Genetics Institute | Telephone: 352-273-8092 | Fax: 352-273-8284 Website: <http://www.clas.ufl.edu/users/-mulligan/Webpage/index.html> cmulligan@ad.ufl.edu

UKansas Bioinformatics

Postdoctoral researcher position available in computational global change ecology. Dr Daniel Reuman is recruiting into his lab in the University of Kansas Department of Ecology and Evolutionary Biology and the Kansas Biological Survey. Research will focus on software aspects of two large projects: 1) Ramifications of metapopulation synchrony through the complex North Sea and North Atlantic metacommunities in the face of climate change; and 2) Revealing the mechanisms linking the structure, functioning, and dynamics of whole ecological communities using likelihood. The researcher will be expected to contribute to software development for both projects, collaborating with teams of biologists, statisticians, and modellers and pursuing independent research questions. The position could be suitable for scientists from diverse training backgrounds. See <http://employment.ku.edu/staff/313BR> for details or to apply. Contact reuman@ku.edu with questions.

Daniel C. Reuman Senior Lecturer, Department of Life Sciences Imperial College London <http://www3.imperial.ac.uk/people/d.reuman> Visiting Assistant Professor, Laboratory of Populations, Rockefeller University Grand Challenges in Ecosystems and the Environment initiative, member

Director, MSc in Quantitative Biology <http://www3.imperial.ac.uk/lifesciences/>

[postgraduate/courselist/quantitative-biology](http://www3.imperial.ac.uk/postgraduate/courselist/quantitative-biology)
Director, MRes in Biodiversity Informatics and Genomics <http://www3.imperial.ac.uk/pgprospectus/facultiesanddepartments/lifesciences/postgraduatecourses/biodiversityinformaticsgenomics>
+44 (0)20 7594 2401

“Reuman, Dan” <d.reuman@imperial.ac.uk>

UKansas Lawrence Population Evolution

Postdoctoral researcher position available in population/community ecology.

Dr Daniel Reuman is recruiting into his lab in the University of Kansas Department of Ecology and Evolutionary Biology and the Kansas Biological Survey. Three years of funding are currently available. The broad research goal of the lab is to mechanistically understand and predict the consequences of human impacts such as global warming on populations, communities, and ecosystems. We use mathematical, statistical, and computational approaches, and collaborate widely with field and laboratory workers to explain observations, confront theory with data, and make predictions. Example projects include: 1) an international project using new and existing wavelet analysis techniques to understand how patterns of metapopulation synchrony ramify through marine and terrestrial communities; 2) diverse efforts to understand how climate change affects whole ecological communities, using study systems including artificial mesocosms and geothermally heated streams in Iceland; and 3) projects to understand how the history of habitat fragmentation in the Amazon and elsewhere affects modern and future patterns of biodiversity. Details can be found in the publications here: http://www.imperial.ac.uk/AP/faces/pages/-read/Home.jsp?person=d.reuman&_adf.ctrl-state=-1bn2hlx7w8_143&_afRedirect=2769289021706584

Several opportunities exist to contribute to and take leadership roles in ongoing research directions. We will also consider proposals for new directions that fit within overall lab themes. We welcome hearing from prospective applicants from a range of backgrounds and levels of quantitative experience.

The University of Kansas (KU) is a major research university with special strength in ecology and evolutionary biology. The EEB department has 40 tenured and

tenure-track faculty working in a wide variety of areas, with National Research Council and Chronicle of Higher Education rankings in the top 10 in the USA. KU is located in the town of Lawrence, Kansas, about 40 miles from Kansas City. Lawrence is a progressive and cosmopolitan university town of about 100,000 people, with vibrant art, music, and sports scenes. Lawrence was ranked among the top ten college towns in the country in 2012 by livability.com, beating, for instance, Ann Arbor, MI, and Austin, TX.

For questions contact Dan Reuman at reuman@ku.edu. To apply see <http://employment.ku.edu/staff/313BR>. Initial review of applications begins 5 May 2014; position open until filled.

Daniel C. Reuman Senior Lecturer, Department of Life Sciences Imperial College London <http://www3.imperial.ac.uk/people/d.reuman> Visiting Assistant Professor, Laboratory of Populations, Rockefeller University Grand Challenges in Ecosystems and the Environment initiative, member

Director, MSc in Quantitative Biology <http://www3.imperial.ac.uk/lifesciences/postgraduate/courselist/quantitative-biology>

Director, MRes in Biodiversity Informatics and Genomics <http://www3.imperial.ac.uk/pgprospectus/facultiesanddepartments/lifesciences/postgraduatecourses/biodiversityinformaticsgenomics> +44 (0)20 7594 2401

“Reuman, Dan” <d.reuman@imperial.ac.uk>

ULille France Arabidopsis SelfIncompatibility

Post-doctoral position on the origin of functional novelty at the self-incompatibility locus in Arabidopsis

We are looking for a post-doctoral associate to work on allelic diversification at the self-incompatibility locus in the outcrossing Arabidopsis species /A. halleri/. While the genes encoding self-incompatibility are typically highly multiallelic, the emergence of new allelic specificities has remained a mystery. This is in particular due to the functional constraint caused by the fact that these genes encode a molecular lock-and-key mechanism, whereby both the lock and the key must both be hit by novel cognate mutations in order for the system to remain functional. To address this issue, the project will use a « resurrection » approach to recon-

struct ancestral protein sequences and express them in /A. thaliana/ using tools of genetic transformation to test whether contemporary specificities have retained identical recognition phenotypes as compared to their ancestor.

The ideal candidate should have either previous experience with genetic transformation in /A. thaliana/ and a keen interest in evolutionary biology or a strong background in evolutionary biology with demonstrated abilities in either molecular biology or the management of large experimental designs in plants. A high level of autonomy is required. Initial duration of the post-doc in one year with possible extension for an additional 6 months. Salary is competitive and commensurate with experience. The position is available now and the starting date should be no later than July 1st .

Applicants should send a letter describing their qualifications, a research statement, a curriculum vitae, and names, addresses, email addresses and telephone numbers of three references through emails vincent.castric@univ-lille1.fr and Xavier.Vekemans@univ-lille1.fr

Contact :

Vincent CASTRIC & Xavier VEKEMANS

UMR CNRS 8198 Laboratoire de Genetique et Evolution des Populations Vegetales

Université Lille 1 - Sciences et Technologies

59655 Villeneuve d'Ascq

FRANCE

Vincent CASTRIC CR1 CNRS, HDR.

UMR CNRS 8198 Laboratoire de Genetique et Evolution des Populations Vegetales Université Lille 1 - Sciences et Technologies Batiment SN2, bureau 108 59655 Villeneuve d'Ascq - FRANCE Tel: +33 3 2033 5923 - Fax: +33 3 2043 6979 <http://gepv.univ-lille1.fr/> Vincent CASTRIC <Vincent.Castric@univ-lille1.fr>

ULiverpool MathematicalEcology

3-year Postdoctoral Research Associate position in Mathematical Ecology

Department of Evolution, Ecology, and Behaviour, University of Liverpool, UK

We are seeking a highly skilled scientist with suitable

experience to join the Mathematical Ecology Group (headed by Dr Stephen Cornell) at the University of Liverpool. You will develop new mathematical techniques for studying communities of interacting biological populations, by developing approximation schemes for individual based models that incorporate genotypic and phenotypic heterogeneity, spatial structure and stochasticity. You will use these techniques to answer a range of questions relating to the responses of ecological systems to global change, such as the dynamics of species-rich ecological communities and evolution at shifting range margins.

You will have a PhD in a mathematical discipline such as Mathematics or Physics, or in a biological subject with a strong quantitative element. Experience in ecological research is desirable. The post is available for 3 years.

Full details can be found here: <http://www.liv.ac.uk/-working/jobvacancies/currentvacancies/research/r-585879/> Closing date: Wednesday 25th June.

Stephen Cornell stephen.cornell@liverpool.ac.uk Institute of Integrative Biology, University of Liverpool, Liverpool L69 7ZB, UK

Stephen.Cornell@liverpool.ac.uk

ULyon Evolutionary Genomics

Postdoctoral Position in Evolutionary Genomics (Lyon, France)

A position is available for a highly motivated postdoctoral researcher in the group of Laurent Duret at The Laboratoire de Biométrie et Biologie Evolutive, CNRS, Université Lyon 1.

The researcher will be involved in the comparative analysis of programmed genome rearrangements in the ciliate *Paramecium*. In paramecia, as in other ciliates, genome rearrangements occur during the development of the somatic macronucleus (MAC) from the germline micronucleus (MIC), in each sexual generation. Rearrangements include the precise elimination of ~45.000 single-copy Internal Eliminated Sequences (IESs), which are believed to be degenerate remnants of ancient transposable element insertions. We are sequencing MIC genomes of different strains and species of the *Paramecium* genus to reconstruct the evolutionary history of IESs and to test the hypothesis that polymorphisms in these elements result in sexual incompat-

ibility.

Candidates must hold a Ph.D. in computational biology, evolutionary genetics/genomics, molecular evolution or a related field. Experience in comparative genome-wide analyses, next-gen sequencing data, and bioinformatic programming are preferred. Programming skills in either perl, python, or other languages suitable for bioinformatic analyses are required.

This is a two-year position. The position is open immediately and the start date is negotiable (but not later than January 1st 2015).

To formally apply, please send the following in PDF format to Laurent Duret (Laurent.Duret@univ-lyon1.fr):

1. A curriculum vitae, including names of 3 referees.
2. A brief statement describing current and future research goals

<https://lbbe.univ-lyon1.fr/-Duret-Laurent-.html?lang=en>

Laurent Duret Laboratoire Biométrie et Biologie Evolutive UMR CNRS 5558, Université Lyon 1 43 Bld du 11 Novembre 1918 69622 Villeurbanne cedex France

Phone : +33 (0) 4 72 44 62 97 FAX : +33 (0) 4 72 43 13 88 e-mail : Laurent.Duret@univ-lyon1.fr
 Web page: <http://lbbe.univ-lyon1.fr/-Duret-Laurent-.html?lang=en> Laurent Duret <Laurent.Duret@univ-lyon1.fr>

UMassachusetts Boston Phylogenetics

I am advertising a postdoc in phylogenetic comparative methods in my lab (<http://faculty.umb.edu/-liam.revell/>). The official closing date for this search is May 29; however if you are interested in the position but cannot submit an application by that deadline, please contact me (liam.revell@umb.edu). The position is available immediately and I would ideally like to hire someone who can start by this fall. That being said, if you are interested in the position but not available until 2015, please do apply anyway. Finally, although the initial position is for one year, it may be renewed for up to three years (or longer).

Please contact me with any questions about this position. Full advertisement below:

—

Postdoctoral research associate in phylogenetic comparative methods

A postdoctoral position is available in the Revell lab (<http://faculty.umb.edu/liam.revell/>) at the University of Massachusetts Boston in theoretical phylogenetics and/or computational phylogeny methods. Applicants should have a Ph.D. and extensive training and experience in one or more of the following areas: phylogeny method development or application in software; theoretical evolutionary quantitative genetics; and/or evolutionary computational biology. The ideal candidate will also have broad training in evolutionary biology, strong writing skills, and prior teaching or mentoring experience.

The postdoc hired from this search will play a key role in a recently funded NSF project to develop and apply new methods for evolutionary analysis in the context of phylogenetic trees. Major goals of this project include developing new visualization methods for phylogenetic comparative biology, improving the integration of phylogeny inference and comparative analysis, and bridging micro- and macroevolution in phylogenetic comparative biology. Consequently, the best candidate for this position will have skills and experience in multiple areas. The project also has substantial training goals, including the development of a new series of phylogenetic analysis mini-courses in Latin America, and a young developers' workshop at UMass Boston's Nantucket Field Station. The successful candidate will also be expected to participate in some of these programs.

The position is available for one year with the possibility of renewal. Start date is flexible. Please email Liam Revell (liam.revell@umb.edu) with any questions about this position.

A complete application for this position will include: (1) a brief cover letter; (2) a curriculum vitae; (3) a maximum two-page statement of your research experience & interest; and (4) names & contact information for three references. Applications can be submitted online via UMass Boston's Interview Exchange system via the following URL: <http://www.phytools.org/postdoc.search/>. The position is open until filled, but applications should be sent by May 29, 2014 for full consideration.

UMass Boston provides equal employment opportunities (EEO) to all employees and applicants for employment.

– Liam J. Revell, Assistant Professor of Biology University of Massachusetts Boston web: <http://faculty.umb.edu/liam.revell/> email: liam.revell@umb.edu blog: <http://blog.phytools.org>

Liam.Revell@umb.edu

UMinnesota FungalGenomics

Postdoctoral Position - Fungal Genomics and Metabolomics University of Minnesota, St. Paul, MN

Position description:

A postdoctoral position focused on comparative genomics, metabolomics, and regulatory mechanisms of secondary metabolites in fungi is available in the Bushley lab. This project will focus on population genomics of fungi (*Fusarium*, *Tolyposcladium* spp.) to investigate regulation and evolution of secondary metabolite genes, clusters, and metabolites. The project will adopt an interdisciplinary approach that integrates next-generation genome sequencing and assembly, comparative genomics, and RNA-Seq experiments with analyses of chemical products. Genome resequencing will examine the roles of structural variation, transposition, selection, genome methylation, and other evolutionary processes in driving the diversification of secondary metabolite genes and clusters. Strain specific differences in metabolite expression will be investigated under a variety of different media conditions and data will be integrated to develop and analyze metabolic and regulatory networks involved in controlling secondary metabolism.

Minimum requirements: A Ph.D. in molecular biology and genetics, mycology, genomics, chemistry, biochemistry, or related fields. The ideal candidate will have existing skills in two or more of the following: experience in sequencing and analysis of next-generation sequence data, bioinformatics and comparative genomics, molecular biology, mass spectrometry, nmr, and a willingness to learn new techniques. The initial appointments is for 1 year, with an opportunity for renewal for a second year. The position is available beginning in June 2014. Start date is flexible. Salary range \$38,000 - \$43,000 depending on experience, plus health benefits.

To apply: Any questions regarding the position should be directed to kbushley@umn.edu. Informal inquiries are welcome. Applicants must apply through the University of Minnesota Office of Human Resources website (employment.umn.edu/applicants/Central?quickFind9828) and include a CV, a cover letter detailing research interests and experience, and contact information for

three references. Screening of applicants will begin May 15 until a suitable candidate is found.

Kathryn Bushley Assistant Professor University of Minnesota Department of Plant Biology 822 BioSci Bldg 1445 Gortner Avenue St. Paul, MN 55108

phone: 612-625-8213

Kathryn Bushley <kbushley@umn.edu>

UNESP Brazil Bioinformatics

Dear colleagues,

We are looking for a highly motivated young scientist specialized in bio-informatics (NGS data management, programming and modeling) and with good knowledge in genomics to apply for a post-doctoral position at the UNESP (Universidade Estadual Paulista) laboratory of Molecular Evolution in São José do Rio Preto (Brazil), through a post-doctoral program sponsored by a Brazilian Funding Agency. Portuguese is not mandatory; the working language will be English.

The post-doctoral position will aim to analyze the data obtained from the re-sequencing of different *Coffea canephora* genotypes representative of the natural genetic diversity of this species in Africa. It will take advantage of the forthcoming publication of the model genome of *C. canephora* and a long experience of the collaborative network involved in this project. The application must include a project, already defined but which will be implemented by the candidate with great support from the participating teams and should be completed according to the candidate's research experiences.

The position is for one year renewable once.

Candidates must send their CV and a cover letter to Claudia Marcia Carareto (carareto@ibilce.unesp.br), Valérie Poncet (valerie.poncet@ird.fr) and Alexandre de Kochko (alexandre.dekochko@ird.fr) ASAP.

Coffee is the world's second largest agricultural commodity and agricultural employment. Brazil is the first coffee producer worldwide; it is also an important consumer. *Coffea canephora* (Robusta) provides 33% of the global coffee production and 22% of the Brazilian coffee production (2013). Climate change (warming and changes in rainfall patterns) may have strong negative impacts on coffee production. The world's foremost climate science group, the Intergovernmental Panel on

Climate Change (IPCC 2014)¹, has indeed included the negative effects of warming on coffee as part of a landmark report on the global impacts of climate change. Adaptive strategies to mitigate these effects may largely depend on our knowledge of how crops respond to climate variability and on the availability of genetic resources within wild populations. But in spite of this threat, climate effects on coffee tree yields and genetic diversity for adaptive traits have so far been poorly analyzed or only partially on specific cultivated varieties. Moreover, even though *C. canephora* not being the most preferred coffee on the market, it constitutes the highest genetic diversity in the *Coffea* genus and therefore exploring its genetic background in relation to physiological adaptability offers the highest opportunity for improving and sustaining coffee productivity worldwide.

In the proposed research we will address the issue of *Coffea canephora* resilience by:

Assessing the genetic diversity and structural genomic differences in *C. canephora* by analyzing data issued from the resequencing of a set of wild genotypes representative of the species genetic structure. In addition, partial resequencing (GBS) of a large set of both cultivated and wild genotypes is also conducted; cultivated Brazilian genotypes (Conilon) are part of this effort. The postdoctoral fellow will take a particular attention to the possible variations of alleles and/or paralogs linked to the species adaptive capability provoked by possible insertions of mobile elements. A particular attention will be paid to genes potentially involved in drought tolerance. Evolutionary scenarios will also be drawn to explain phylogenetic relationships within *C. canephora* and define the present mechanisms involved in its genetic differentiation.

The project will take advantage of the first *C. canephora* genome to be publicized soon.

Alexandre de Kochko Responsable Evolution et Dynamique des Génomes UMR DIADE Centre IRD de Montpellier BP 64501 Montpellier Cedex 5 France

Tel: +33 (0)467416311 Fax: +33 (0)467416222

<http://www.diade-research.fr/>
dre.dekochko@ird.fr

alexan-

UNevada Reno BioinformaticsGenomics

POSTDOCTORAL POSITION IN BIOINFORMATICS AND GENOME EVOLUTION AT THE UNIVERSITY OF NEVADA, RENO

The newly established Alvarez-Ponce lab at the University of Nevada, Reno, is accepting applications for a postdoctoral position 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.), and the adaptation of proteins to different temperatures.

The initial appointment will be for 24 months, with the possibility of extension depending on funds availability. The preferred starting date is September/October 2014.

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 David Alvarez-Ponce (david.alvarez.ponce@gmail.com) 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.

More information about the lab can be found at www.genomeevol.wordpress.com The University of Nevada, Reno is a Tier I institution offering a highly productive research environment, including outstanding core facilities in proteomics, genomics, and bioinformatics. The Biology Department has a growing 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@gmail.com

UParis-Sud
PopGenomicsCheeseFungi

Postdoc in Population Genomics of Cheese Fungi (Orsay, France)

We are seeking a highly motivated postgraduate researcher to work on population genomics of cheese Fungi in laboratory ESE located in Orsay near Paris (<http://www.esu-psud.fr/index.php>). The project focuses on studying the population genomics of **Penicillium roqueforti**, a fungus used for the maturation of blue cheese. Using whole-genome sequences of wild and domesticated populations, the successful applicant will particularly work on describing the recombination landscape within the genome of **Penicillium roqueforti**, the dynamics of transposable elements and horizontal gene transfers, and the selection within domesticated populations.

Applicants must have a PhD with emphasis on population genetics and genomics, molecular evolution. Experience in manipulating high throughput sequencing data and bioinformatics would be an advantage as well.

The successful applicant will be working in Evolutionary Ecology and Genetics team with Antoine Branca and Tatiana Giraud. The team has a long research experience in population genetics of fungi.

Orsay is a small town located 30km south of Paris and at just 40 min by urban transportation from downtown Paris.

Review of applications begins immediately until the end of June 2014. Starting dates are flexible but preferentially by September 2014. Salary will depend upon experience. To apply, please email to antoine.branca@u-psud.fr: i) a cover letter summarizing research interests and expertise ii) a Curriculum Vitae (including publications), and iii) the names and contact information of at least two references.

Sincerely,

Antoine Branca PhD Université Pierre et Marie Curie
Lecturer Université Paris-Sud Laboratory Ecology, Systematics and Evolution Bâtiment 360 91405 Orsay
Cedex France Tel: +33 (0)1 69 15 56 62

ant1brank@gmail.com

UPorto Portugal EvolBiol

Investigator Portugal

CIIMAR-Interdisciplinary Center of Marine and Environmental Research- is a research and advanced training institution of the University of Porto. Its mission is to develop exceptional interdisciplinary research, promote technological development and support public policies in the area of Marine and Environmental Sciences (www.ciimar.up.pt).

The FCT (Foundation for Science and Technology, Portugal) has open a competition designated the 'Investigator Programme' which aims to create a talent base of scientific leaders, by providing 5-year funding for the most competitive and promising researchers, across all scientific areas and nationalities. The overall aim of the FCT Programme is to allow the recruitment of 1 000 outstanding researchers by 2016, hosted by research centres across Portugal. See more at <https://if.fct.pt/>

Applicants must have a Host institution. CIIMAR is willing to sponsor prospective candidates in the area of Evolution, Genomics and Phylogenetics upon a previous CV analysis. Those interested should contact Filipe Castro (filipe.castro@ciimar.up.pt).

Filipe Castro, PhD Biomedical Sciences Researcher LECEMA, CIIMAR, Portugal email: lfilipecastro@gmail.com filipe.castro@ciimar.up.pt

Filipe Castro <lfilipecastro@gmail.com>

USDA Ames IA VirusEvolution

Postdoctoral Research Program U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS) ARS-VPRU-2014-0020 Project Description

A research computational biologist postdoctoral associate opportunity is available with the U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS) Swine Viral Diseases Pathogenesis and Immunology project in the Virus and Prion Research Unit (VPRU) of the National Animal Disease Center (NADC) in Ames, IA. Scientists in this unit maintain a

comprehensive IAV research program including investigation of virulence mechanisms, vaccinology, immunology, and virus evolution.

The selected applicant will be responsible for characterization of the genetic and antigenic evolution of influenza A viruses (IAV) in swine in support of a contract between USDA-ARS and NIH-NIAID. Specific goals are to quantify antigenic evolution of IAV from swine and define the global relatedness of swine influenza viruses through computational analyses with IAV sequences in the context of contemporary and historical isolates for determination of phylogenetic relationships, lineages, interspecies transmission, epidemiologic patterns, and antigenic drift or shift. The selected applicant will utilize database(s) for efficient management and analysis of swine IAV sequence data.

Qualifications

To be eligible, applicants must have received a doctorate degree with emphasis on the disciplines of bioinformatics and computational evolutionary biology within five years of the desired starting date.

The ideal candidate will be skilled in scripting language(s), sequence analysis, use of biologic databases and various bioinformatics tools, technical writing and peer-reviewed publications, public speaking, and possess good interpersonal skills to work in a team environment. Additional knowledge of statistical inference methods, virology, molecular biology, and/or genetics is preferred.

While participants will not enter into an employment relationship with ARS, this position requires a pre-employment check and a full background investigation.

This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR) and foreign nationals.

This is an equal opportunity program open to all qualified individuals without regard to race, color, age, sex, religion, national origin, mental or physical disability, genetic information, sexual orientation, or covered veteran's status.

Additional Information The appointment is full-time for one year and may be renewed upon recommendation of the ARS and availability of funding. The year one annual stipend rate for this position is \$65,009. A stipend supplement is included in this rate to cover the cost of an individual or family health insurance plan. The participant must show proof of health and medical insurance. Health insurance can be obtained through ORISE. The rate includes a travel allowance of \$2,000 per year to reimburse travel-related expenses to scientific and professional development activities. Funding

is not available for relocation expenses. The participant does not become an employee of the ARS or ORISE.

For additional information about the ARS Post-doctoral Research Program, please visit <http://www.orise.orau.gov/usda-ars>.

How to Apply

An application can be found at <http://orise.orau.gov/usda-ars/applicants/application.htm>. Please reference Project # ARS-VPRU-2014-0020 in your application and when calling or writing for information.

USDA-ARS <USDA-ARS@orau.org>

USouthCarolina Phylogenetics MolecularEvol

The Speiser Lab at the University of South Carolina – in collaboration with the Oakley Lab at the University of California Santa Barbara and the Eernisse Lab at California State University Fullerton – seeks a highly motivated and productive postdoctoral researcher to work on the NSF-funded research project titled “Timing and molecular origins of recently evolved chiton shell-eyes: Phylogenomics of Chitonina”. The overall goals of our grant are to answer when, where, how, and why eyes evolved in certain polyplacophoran mollusks (chitons).

The position requires an individual with a PhD and experience in phylogenetic systematics, bioinformatics, and paleontology. Outstanding computational and/or quantitative skills are particularly advantageous. Briefly, the post-doc will help produce new phylogenomic datasets for chitons, and then use this information – along with existing 16S/COI data and fossil and biogeographic records – to produce a new fossil-calibrated phylogeny of chitons and estimate when, where, and how many times their eyes evolved. Additionally, the post-doc will coordinate research between the Speiser Lab, Oakley Lab, and Eernisse Lab. Travel between South Carolina and California will be mandatory.

Funding is available for a minimum of 1 year, and may be extended upon mutual agreement. Preference will be given to applicants who (with the help of PI Speiser) will be competitive candidates for independent support through postdoctoral fellowships from the NSF or other funding agencies. The starting date is flexible, and the position will remain open until filled. For primary con-

sideration, applicants should apply by July 1st, 2014. Informal inquiries are welcomed, prior to formal application. To apply, please prepare the following and combine them into a single PDF file:

1. A curriculum vitae.
2. Names of 3 referees willing to provide a letter of recommendation upon request.
3. A brief statement of your research and career goals.
4. A brief statement of ideas and qualifications for independent funding.

Please send applications by email to Dan Speiser (dispeiser@gmail.com) with “postdoc application” in the subject line.

The University of South Carolina is an Equal Opportunity / Affirmative Action Employer.

dispeiser@gmail.com

USouthernCalifornia EvolutionarySystemsGenetics

One or two postdoctoral positions are available in the lab of Ian Ehrenreich at the University of Southern California. Most of my groups work focuses on precisely characterizing the relationship between genotype and phenotype using the budding yeast model system. We are also beginning to explore the molecular mechanisms by which new traits arise within populations.

We presently have several funded projects on the genetic basis of complex traits, molecular mechanisms of higher-order epistasis and phenotypic plasticity, and the evolutionary genomics of bacterial populations. Successful applicants will contribute to one of these projects, but also are welcome and will be encouraged to develop novel research trajectories. Applicants should have expertise in quantitative genetics, evolutionary genomics, systems biology, biochemistry, molecular biology, or bioinformatics.

Interested parties should send a CV, one-page statement of research interests, and contact information for three potential recommenders to Ian.Ehrenreich@usc.edu.

Ian Ehrenreich Assistant Professor Molecular and Computational Biology University of Southern California
Email: Ian.Ehrenreich@usc.edu Phone: (213) 821-5349

Ian Ehrenreich <ehrenrei@usc.edu>

UTexas-Austin HostMicrobeEvolutionaryGenomics

POSTDOCTORAL RESEARCHER IN EVOLUTIONARY GENOMICS OF HOST-MICROBIOTA INTERACTIONS Purpose of the position: Oversee genomic, molecular-ecological, and quantitative-genetic research in the lab of Ulrich Mueller, Department of Integrative Biology, University of Texas at Austin, USA. The research integrates co-evolutionary population biology, microbial and molecular ecology, animal behavior, and genomics of host-microbiota interactions. Essential Functions: Conducts research on genetics/genomics and microbial-ecology of animals, plants, and microorganisms. Required Qualifications: PhD in biology. Preference will be given to candidates with some of the following skills: RAD-genotyping; population-genetic analyses; bioinformatics; genomics; transcriptomics. Preferred Qualifications: Demonstrated knowledge of population-genetic analyses and molecular-genetic techniques; experience in genotype/sequencing analysis; bioinformatic analyses; experimentation in field and lab of plants or animals. Ability and interest in collaborative work with post-docs, graduate students, and undergraduate researchers.

To apply, please send single pdf-file including resume and contact-information of three referees to: Prof. Ulrich Mueller, Integrative Biology, University of Texas at Austin; umueller@austin.utexas.edu

leafcutterlab@gmail.com

UZurich EcolGenomics HostParasite

Postdoc position in Genomics of Host-Parasite Interactions University of Zurich, Switzerland

In this project, embedded in the University Research Priority Program 'Evolution in Action' (<http://www.evolution.uzh.ch/index.html>), we combine ecological research on natural rodent populations along altitudinal gradients in the Swiss Alps with genomics approaches to obtain insight into the genetic basis of variation in *Borrelia* resistance and the role of pathogens in

shaping adaptive processes in natural host populations. The postdoc's focus will be on the genomics aspects of this project.

Wild rodents are main hosts of the spirochete *Borrelia* sp., the causative agent of Lyme borreliosis in humans. Despite frequent exposure to *Borrelia*-transmitting ticks, only a fraction of animals within a population become *Borrelia*-infected, indicating that natural hosts have evolved powerful defence mechanisms, which prevent and / or control *Borrelia* infection. To date, this variation in *Borrelia* resistance remains poorly understood. Furthermore, in the Alps, host populations differ in tick and *Borrelia* exposure, with high parasite pressure at lower elevations and low parasite pressure at higher elevations, and there is evidence that *Borrelia* has recently moved upwards and newly infects host populations that were previously *Borrelia*-free. This provides a unique opportunity to track rapid evolutionary changes in host populations in response to an emerging pathogen.

The ideal candidate for this project is fascinated by evolutionary questions, has a can-do attitude and experience in ecological genomics and bioinformatics. The postdoc will be based at the Institute of Evolutionary Biology and Environmental Studies of the University of Zurich, providing ample opportunities for collaborations and interactions with researchers working in related and complementary fields (<http://www.ieu.uzh.ch>). The institute is very international and the working language is English.

The position is funded for 1 year (gross salary CHF 75'500 per annum). However, the successful applicant is strongly encouraged to apply for competitive internal funding (http://www.researchers.uzh.ch/promotion/forschungskredit/postdoc_en.html) to extend the position to up to 3 years. The ideal starting date is autumn 2014 (negotiable).

Applications should include 1) a cover letter outlining your motivation to work on this project as well as relevant experience, 2) a detailed curriculum vitae, and 3) the contact details of three academic referees. Send the above as a single .pdf file to barbara.tschirren@ieu.uzh.ch

Review of applications will start on July 1st 2014, but candidates will be considered until the position is filled.

For more information, feel free to contact me!

Prof. Dr. Barbara Tschirren Institute of Evolutionary Biology and Environmental Studies University of Zurich Winterthurerstrasse 190 8057 Zurich Switzerland

Email: barbara.tschirren@ieu.uzh.ch <http://www.ieu.uzh.ch/staff/professors/tschirren.html>
barbara.tschirren@ieu.uzh.ch

UdeMontreal QC SpruceBudworm LandscapeGenetics

POST-DOCTORAL POSITION IN FOREST ENTOMOLOGY AND LANDSCAPE GENETICS - Montreal, QC.

The James Jab at the Université de Montréal and the Canadian Forest Service, Natural Resources Canada, are currently seeking a motivated and highly qualified post-doctoral researcher to examine dispersal in the spruce budworm (*Choristoneura fumiferana*) using landscape genetics. The spruce budworm is a native forest insect pest that is currently outbreaking in Québec and is imminently poised to spread into New Brunswick. This research project is part of a large inter-disciplinary and multi-institutional research programme dedicated to better understanding the fundamental ecology of the spruce budworm system. The specific project will improve our understanding of budworm dispersal to further develop models of spatial population dynamics and the assessment of outbreak risk in forest areas not yet affected.

The candidate is expected to have experience and skills in molecular ecology and population genetics. Further skills in landscape ecology, forest entomology, GIS, multivariate statistics, programming, and management of large data sets are desired. Some experience in forestry and forest management issues in Canada is desired but not mandatory. The ability to communicate effectively in English is required. Note that the Université de Montréal is a French language institution.

To apply please send a current CV, contact information for three references, a writing sample (e.g., a published paper), and a precise cover letter outlining your research experience and interests to Dr. Patrick James (patrick.ma.james@gmail.com) before June 20th, 2014.

All applicants are expected to have a PhD at the time the contract will begin in September 2014.

We thank everyone for their applications but only those selected for an interview will be contacted.

patrick.ma.james@gmail.com

UppsalaU GeneExpressionAnalysis

Post doc position in single cell gene expression analysis

A 2-year postdoctoral research position is available in the group of Jochen Wolf at the Evolutionary Biology Centre in Uppsala, Sweden, as part of a project funded by the European (ERC) and Swedish Research councils (VR).

Background. We are a young, growing research group that applies an integrative approach to study evolutionary processes in natural populations. Major research themes include the evolutionary processes and genetic mechanisms underlying species divergence (e.g. Wolf et al. 2010a, Ellegren et al. 2012, Poelstra et al. in press) and genome evolution (e.g. Mugal et al. 2014).

The position is part of a long-term research program on the genomics of speciation in an avian model system. The European crow hybrid zone between all-black carrion crows and grey-coated hooded crows is a textbook example of incipient speciation involving colour-mediated social selection (Meise 1928, Wolf et al. 2010b). We generated an annotated hooded crow genome draft generated data for integrated analyses of comparative genome re-sequencing data, transcriptome expression profiling and functional assays on plumage colouration. We find that only a small well-defined part of the genome diverged between the two sub-species which is associated with gene expression divergence in pigmentation genes causing differences in eumelanin production in growing feather follicles (Poelstra et al. in press).

The project. Tissue based RNA-seq data integrates across many cell types and has poor resolution in understanding cell-type specific divergence in gene expression. In the crow system, we are specifically interested in expression patterns in melanocytes, the cell types that are responsible for melanin production and eventually colour deposition into the feathers. The successful candidate will use in situ proximity (mRNA) ligation assays developed by colleagues in Uppsala (Larsson et al. 2010) to 1) obtain positional information of gene expression and 2) quantify relative mRNA abundance in single melanocyte cells. He/she will establish this method on cross-sections of growing feather material to specifically pinpoint the action of candidate genes from the melanogenesis pathway (for more information on the method see <http://www.igp.uu.se/>-

research/molecular_tools/ola_soderberg/).

Qualification. The successful applicant has demonstrated skills in molecular and histological techniques, e.g. cyro-sectioning of difficult material; RNA in situ hybridisation, ideally fluorescent multiplexed; immunohistochemistry, confocal microscopy. Experience with quantitative approaches and in situ Proximity-Ligation-Assays are a clear advantage. The environment. The Evolutionary Biology Centre (<http://www.ebc.uu.se/>) is one of the world's leading research institutions in evolutionary biology. It is part of Uppsala University which has been ranked first place among all European Universities in the subject of biology (CHE European ranking) and successfully bridges a broad variety of disciplines. The scientific environment with numerous seminars, journal clubs and social activities offer excellent possibilities for contacts and collaborations. A graduate school in 'The Genomics of Phenotypic Diversity in Natural Populations' directed by Jochen Wolf (<http://www.ebc.uu.se/education/postgrad/gradschool/>) provides a framework for courses, high-profile seminars and other activities for PhD students. Our lab is part of the Department of Evolutionary Biology (<http://www.ebc.uu.se/Research/IEG/evbiol/>), an active environment addressing fundamental evolutionary questions with a wide range of different approaches. As a member of the Science for Life Laboratory (<http://www.scilifelab.se/>) we have excellent access to advanced laboratory infrastructure and high performance computing resources. The lab is situated in the student town of Uppsala, that offers rich opportunities in cultural and outdoor activities. Sweden's capital Stockholm is less than an hour's train ride away.

How to apply. Applications should include a CV, a statement of motivation and the contact details of at least two references. Use the following online portal to apply: <http://www2.personalavd.uu.se/jobb/appform.php?lang=en&case=UFV-PA%202014/1595>. The positions remains open until filled. Starting date is flexible. For more information contact jochen.wolf@ebc.uu.se or see

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UppsalaU PinnipedPopulationGenomics

Post doc position in pinniped population genomics

A 2-year postdoctoral researcher position is available in the group of Jochen Wolf at the Evolutionary Biology Centre in Uppsala, Sweden.

Background. We are a young, growing research group that applies an integrative approach to study evolutionary processes in natural populations. Major research themes include the evolutionary processes and genetic mechanisms underlying species divergence (e.g. Wolf et al. 2010, Ellegren et al. 2012, Poelstra et al. in press) and genome evolution (e.g. Mugal et al. 2014). Using large-scale genomic approaches, we characterize divergence across populations and (sub-)species differing in the degree of reproductive isolation and assess its relationship to functional phenotypic divergence. Empirical systems currently include birds (swallows and corvids), Pelophylax frogs and marine mammals (pinnipeds and killer whales).

This post-doc position is broadly embedded in a research program on Galapagos sea lions (*Zalophus wollebaeki*) that Prof. Fritz Trillmich and Dr. Jochen Wolf started 12 years ago (<http://www.uni-bielefeld.de/biologie/vhf/FT/sealion.html>). Using whole genome re-sequencing data from more than 100 individuals across the entire species range and populations from its Californian sister species (*Zalophus californianus*) the project addresses key evolutionary processes such as the genetic basis of fitness, adaptation, and speciation. A key feature of the system is the presence of different ecotypes in an essentially sympatric setup (cf. Wolf et al. 2008, Shafer & Wolf 2013). We closely cooperate with Dr. Joe Hoffman from Bielefeld University (<http://www.uni-bielefeld.de/biologie/vhf/JH/>) working with Antarctic fur seal populations (Hoffman et al. 2014) opening a comparative axis to the project.

Qualifications. The successful applicant holds a PhD degree, has a thorough background in population genetics and/or comparative genomics and is experienced in handling large genome-wide data sets. Population geneticists with a more theoretical background are also encouraged to apply.

The environment. The Evolutionary Biology Centre (<http://www.ebc.uu.se/>) is one of the world's leading research institutions in evolutionary biology. It is part of Uppsala University which has been ranked

first place among all European Universities in the subject of biology (CHE European ranking) and bridges a broad variety of disciplines. The scientific environment with numerous seminars, journal clubs and social activities offer excellent possibilities for contacts and collaborations. A graduate school currently directed by Jochen Wolf provides a framework for courses and high-profile seminars broadly reflecting our research interests (<http://www.ebc.uu.se/education/postgrad-gradschool/Seminars>). Our lab is part of the Department of Evolutionary Biology (<http://www.ebc.uu.se/Research/IEG/evbiol/>), an active environment addressing fundamental evolutionary questions with a wide range of different approaches. As a member of the Science for Life Laboratory (<http://www.scilifelab.se/>) we have access to high performance computing resources (<https://www.uppmx.uu.se/uppnex>), excellent lab facilities and extended bioinformatic infrastructure (<http://www.scilifelab.se/platforms>). The lab is situated in the student town of Uppsala, that offers rich opportunities in cultural and outdoor activities. Sweden's capital Stockholm is less than an hour's train ride away.

How to apply. Applications should include a CV, a statement of motivation and the contact details of at least two references. Use the following link to access the application form: <http://www2.personalavd.uu.se/jobb/appform.php?lang=en&case=UFV-PA%202014/1605> The positions remains open until filled. Starting date is flexible. For more information contact jochen.wolf@ebc.uu.se or see <http://www.ebc.uu.se/Research/IEG/evbiol/-research/Wolf/>. Literature.

Poelstra JW, Vijay N, Bossu CM et al. Wolf JBW (in press) The genomic landscape underlying phenotypic integrity in the face of gene flow in crows. Science Mugal CF, Wolf JBW, Kaj I (2014) Why Time Matters: Codon Evolution and the Temporal Dynamics of dN/dS, Mol Biol Evol 31, 212-231. Ellegren H, Smeds L, Burri R et al. Wolf JBW (2012) The genomic

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VanderbiltU EvolutionaryGenomics

A postdoctoral position in Bioinformatics/Computational Biology is available in Tony Capra's research group at Vanderbilt University in Nashville, TN. Our general focus is comparative and evolutionary genomics. We have active projects investigating gene regulatory changes in recent human evolution, modeling variation in protein structures, and developing methods for phylogenetics. For more information about the group and our work, visit <http://www.capralab.org/>. A record of successful publications and a PhD in bioinformatics, computer science, statistics, or a similar discipline is required. Strong programming and analytical skills are essential for this position. Experience in evolution, genetics, and bioinformatics is preferred, but not strictly necessary. Interested applicants should send a CV and a cover letter in PDF format outlining qualifications and research interests to Tony Capra <tony.REPLACE_WITH_LASTNAME@vanderbilt.edu> with the phrase "postdoc application" in the subject line.

tony.capra@vanderbilt.edu

Vienna ForestGenetics

Bundesforschungs- und Ausbildungszentrum für Wald, Naturgefahren und Landschaft / Federal Research and Training Centre for Forests, Natural Hazards and Landscape Institut für Waldgenetik / Department of Forest Genetics Abteilung für Ökologische Genetik und Biodiversität / Unit of Ecological Genetics and Biodiversity A-1140 Wien, Hauptstraße 7, AUSTRIA tel: +43 / 1 / 87838 / 2112 fax: +43 / 1 / 87838 / 2250 E-mail: heino.konrad@bfw.gv.at URL: <http://bfw.ac.at/> < <http://bfw.ac.at/index-en.html> >

Postdoc: Dept. of Forest Genetics, BFW, Vienna, Austria - Association genetics of conifer secondary metabolites

The research group Provenance Research and Breeding of the Department of Forest Genetics/ Federal Research and Training Centre for Forests, Natural Hazards and Landscape (BFW) in Vienna (Austria) is inviting applications for a Post-doc to study the molecular genetics of secondary metabolites in *Picea abies*. The post-doctoral researcher will sequence candidate genes for terpenes and other secondary metabolites to understand the variation within and among populations and to perform association analysis regarding plant defence

traits.

We look for a highly enthusiastic post-doctoral researcher with a strong background in molecular genetics, bioinformatics, forest genetics, and association studies. A high level of self-organization skill is expected. All our projects are highly integrative and require willingness to embrace multiple disciplines within the domain of forest genetics. Fluent spoken and written English is a prerequisite for this position. German is not necessary, but would make day-to-day life easier in Vienna. We offer an inspiring research environment, including state-of-the art research facilities, extensive supervision and an exciting project of considerable fundamental and applied relevance.

The Department of Forest Genetics is located in the heart of Vienna, close to Schoenbrunn castle. We are concerned with the analysis of genetic information about forest trees and other organisms living in the forest and the dynamics of genetic processes in forest stands. Environmental stress and forest management issues are also considered. Activities are based on genome research, population genetics and provenance research (gene ecology). The aim is to translate genetic knowledge into measures for biodiversity enhancement, genetically sustainable management of forests, protection and management of genetic resources and promotion of the adaptability and survival of complex forest ecosystems. In addition, the Department deals with breeding possibilities to increase the productivity and yield of tree species from plantations. Research projects are often conducted in close cooperation with other departments, universities, and forest enterprises in Austria and abroad. Post docs are paid according to BFW standard rates. The contract is for 3 years.

How to apply: Send a single pdf including a letter of motivation, a CV with University grades, the names and addresses of two referees, a short 1 page research vision and copies of your 3 most important papers to

Dr. Silvio SCHUELER (silvio.schueler@bfw.gv.at) and Dr. Heino KONRAD (heino.konrad@bfw.gv.at)

Department of Forest Genetics Federal Research and Training Centre for Forest, Natural Hazards and Landscape A-1140 Vienna, Hauptstr. 7

The position is available from June 2014 and open until filled.

konrad <heino.konrad@bfw.gv.at>

WashingtonStateU ComputationalGenomics

A postdoctoral position is available in the laboratory of Dr. Joanna Kelley, in the School of Biological Sciences at Washington State University in Pullman, WA (wsu.edu/~KelleyLab). The research goals of the laboratory are to use genomic and computational methods to understand the genomic basis of adaptation to extreme environments. We are interested in understanding how genetic and environmental variation interact to drive population differentiation and adaptive evolution. The School of Biological Sciences at Washington State University has a strong research presence in evolution and ecology research and there are many opportunities for interaction and collaboration. We welcome applications from candidates with diverse educational backgrounds.

Applicants will be expected to develop and lead projects. Candidates are required to have a Ph.D. in Genetics, Genomics, Computational Biology (bioinformatics, systems biology), Statistics, Computer Science, or related disciplines. A computing background is desired, especially experience with Unix, and knowledge in one or several programming languages (Perl, Python, C/C++, R/BioConductor, etc). Additional experience with high-throughput sequencing data is highly desirable. Candidates should demonstrate a strong 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.

The appointment is for one year with the possibility of renewal based on satisfactory performance. Funding is available for two years. Salary is competitive and commensurate with experience, and benefits are included.

Applicants should email Joanna Kelley at joanna.l.kelley@wsu.edu and include a curriculum vitae, a cover letter that includes a statement of research interests that explicitly describes your professional qualifications for the position, and contact information for three references. Start time is flexible, with a desired start in Fall 2014. Applications will be accepted through June 10th.

Joanna L. Kelley, PhD Assistant Professor, School of Biological Sciences Member, Center for Reproductive Biology Washington State University

joanna.l.kelley@wsu.edu

WorkshopsCourses

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Barcelona PhylogeniesMacroevolution Oct27-31

Dear Colleagues,

Registration is open for the course “THE USE OF PHYLOGENIES IN THE STUDY OF MACROEVOLUTION - Second edition”, October 27-31, 2014. Instructor: Dr. Juan López Cantalapiedra (Museo de Ciencias Naturales, CSIC, Spain).

Place: Facilities of the CRIP at Els Hostalets de Pierola, Barcelona (Spain).

Organized by: Transmitting Science, the Centre de Restauració i Interpretació Paleontològica and the Institut Català de Paleontologia Miquel Crusafont.

More information: [http://-www.transmittingscience.org/courses/evol/-phylogeny-and-macroevolution/](http://www.transmittingscience.org/courses/evol/-phylogeny-and-macroevolution/) or writing to courses@transmittingscience.org

New phylogenetic methods would allow us to draw on the information encapsulated in phylogenetic trees in order to address a wide range of questions on macroevolution. First, this workshop will introduce participants

to the use, modification and representation of phylogenetic trees. Then, we will focus on the use of phylogenetic information to reconstruct ancestral characters and biogeographic histories, learning how to apply phylogenetic comparative methods. The workshop will also tackle the study of the shape of phylogenetic trees and how to estimate the rates of diversification throughout the evolutionary history of groups. Finally, we will learn how to test the phylogenetic signal of a trait of interest. Participants are encouraged to bring their data sets to use in the practical class.

Please feel free to distribute this information between your colleagues if you consider it appropriate.

With best regards

Soledad De Esteban Trivigno, PhD. Course Director
Transmitting Science www.transmittingscience.org

Soledad De Esteban Trivigno
<soledad.esteban@transmittingscience.org>

Bogota GeometricMorphometrics Jun3-6

Geometric Morphometrics course Universidad Nacional

de Colombia, Department of Biology Bogota, 3 - 6 June, 2014

Dear colleagues,

The research group of Evolutionary Ecology is offering a course on Geometric Morphometrics the first week of June in Bogota, Colombia. The course will be theoretical/practical, and the last afternoon will be dedicated to a mini-symposium where the people attending the course will have the chance to present their work.

Registration is open until 26th of May. Please contact the following email to register or to get more information: *pamarquezg@unal.edu.co*; *jv-munozd@unal.edu.co*

You can also reply directly to this email to get more info.

– Luisa F. Pallares

PhD student Evolutionary Genetics Department Max Planck Institute for Evolutionary Biology August-Thienemannstr. 2 24306 Plön, Germany Tel:04522 763 386 pallares@evolbio.mpg.de

pallares@evolbio.mpg.de

CSIC Sevilla ClimateAdaptation Sep22-Oct3

The Estación Biológica de Doñana (CSIC) (Sevilla, Spain) invites applications for its fifth international course on climate change entitled 'Ecological Consequences of Climate Change: Integrating Research Approaches' taking place from 22 September to 3 October 2014 in the heart of Doñana National Park. The course is open to students at the early postdoc, PhD and Master/advanced Diploma levels who are involved in global-change research. Its aim is to provide a synthetic overview upon different research perspectives ranging from paleoecology to population genetics, ecophysiology and bioclimatic modeling. The course will include lectures and practical exercises provided by an international panel of high-profile researchers, as well as field trips within the National Park.

Invited teachers:

Isabelle Chuine, CEFE (CNRS), Montpellier, France. Solomon Dobrowski, University of Montana, USA. Mary Edwards, University of Southampton, UK. Arndt Hampe, UMR1202 BIOGECO (INRA), Cestas, France.

Montserrat Vila, Estación Biológica de Doñana (CSIC), Sevilla, Spain. Juan Sanz, Museo Nacional de Ciencias Naturales (CSIC), Madrid, Spain Fernando Valladares, Museo Nacional de Ciencias Naturales (CSIC), Madrid, Spain. Jens-Christian Svenning, Aarhus University, Denmark.

Organizers: Juan José Negro, director of Estación Biológica de Doñana, and Arndt Hampe.

The course language will be English. Support from the Gas Natural Chair 'Biodiversity Conservation under Climate Change', enables us to limit registration fees to 100 Euros and to cover all costs for transportation between Sevilla and Doñana National Park, accommodation and meals during the 2- weeks course. Applicants should provide a brief CV (max. two pages) as well as a statement (max. 500 words) about their research interests/current projects and why they would like to attend to the course. Application deadline is 8 June. Please send applications in a single pdf file and any related questions to Begoña Arrizabalaga (ebd.agcm@ebd.csic.es).

Begoña Arrizabalaga Coordinación Dirección Estación Biológica de Donana (CSIC). Americo Vesputio s/n. Isla de la Cartuja. E-41092 Sevilla. España. Tlno. +34 95 4466701/00 Fax +34 95 4621125 e-mail: bego@ebd.csic.es

Begoña Arrizabalaga <bego@ebd.csic.es>

Copenhagen SpeciesDistModelling Aug25-29

The Center for Macroecology, Evolution and Climate is now accepting applications for our annual PHD course entitled "Modelling species distributions under climate change", to be held at the University of Copenhagen August 25-29.

Read more about it here, including information on how to apply:

http://macroecology.ku.dk/teaching/int_phd_course/

Please note that this course is available to PhD students ONLY, and applications received outside of the application period will not be considered; this year's deadline is June 6.

Applications and other inquiries should be directed to David Nogués-Bravo: dnoques@snm.ku.dk

Katharine Ann Marske, PhD

Assistant Professor

Center for Macroecology, Evolution and Climate Natural History Museum of Denmark University of Copenhagen Universitetsparken 15 DK-2100 Copenhagen Ø Denmark

kamarske@snm.ku.dk

LMUMunich Paleobiology

EU students only this time

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 in geo- and biosciences that address patterns and processes of the evolution of life and its habitats on our planet. Principal topics are evolutionary and environmental geobiology and paleobiology, supported by courses in complementary areas e.g., bioinformatics, statistics, sedimentology.

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 Oc-

tober (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 admission of EU students to the winter semester 2014/2015 (courses start early-October 2014) the deadline for application is May 31, 2014.

The next application deadline for non-EU students for admission to the winter semester 2015/2016 is January 31, 2015.

Please send requests regarding the MGAP program ONLY to the email listed on the webpage mentioned above (mgap@geo.lmu.de).

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.geobio-center.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 (BMBWF) to promote innovative teaching and learning. Munich has also been repeatedly voted Germany's most livable city.

woerheide@lmu.de

LakeheadU Canada AncientDNA Jun16-28

Practical DNA Training Program:

A two-week (9 business days) intensive laboratory-based training program designed to teach participants the fundamentals of molecular techniques including DNA extraction, amplification (using PCR), sequencing and interpretation.

This training program is offered at various times

throughout the year and we will work with you to find a suitable time for training.

The next scheduled course for the Practical DNA Training Program is June 16-26, 2014.

For more information please contact us at 807-343-8877 or paleodna@lakeheadu.ca or visit our website www.ancientdna.com and click on 'Training Programs'.

Thank you.

Karen.

Karen Maa Administrative Assistant Paleo-DNA Laboratory 1294 Balmoral Street, 3rd Floor Thunder Bay, Ontario P7B 5Z5 Telephone: 1-866-DNA-LABS or 1-807-343-8616

Karen Maa <kmaa@lakeheadu.ca>

MTRL Florida Methods Genomic Analysis Jun15-Jul5 Deadline

Hello colleagues,

We just wanted to remind you that the deadline for signing up for our Methods in Ecological Genomic Analysis (MEGA) workshops is fast approaching!

http://www.bio.utexas.edu/research/matz_lab/-matzlab/MEGA2014.html Metabarcoding of Symbiotic Communities June15 - June 20

Whole-genome genotyping with 2bRAD -very few spots left! June 20 - June 27

Global gene expression profiling with tag-based RNA-Seq - very few spots left! June 27 - July 5

By April 30, 2014, please send an email with 'MEGA 2014' in the subject line to all the instructors (Mikhail Matz <matz@utexas.edu>, Sarah Davies <daviessw@gmail.com>, Rachel Wright <rachelwright8@gmail.com>), indicating your interest, and a short description of your research focus (or simply references to your relevant publications). Please specify how likely you are to participate, assuming that you will have to pay the workshop's fee by May 15. Each part of the workshop is limited to 12 participants, first come first serve (assuming the prerequisites are met).

As always please email if you have any questions! We hope to see you in Florida this summer! Cheers Misha,

Rachel and Sarah

Sarah W. Davies Ph.D. University of Texas at Austin
daviessw@gmail.com

MTRL Florida Methods Genomic Analysis Jun15-Jul5 More Spots

Hello colleagues,

We would like to let you know that due to several cancellations a few spots have opened up in our Methods in Ecological Genomics Workshops this summer in the Florida Keys. The two courses offered this year are:

Whole-genome genotyping with 2bRAD June 20 - June 27

Global gene expression profiling with tag-based RNA-Seq June 27 - July 5

http://www.bio.utexas.edu/research/matz_lab/-matzlab/MEGA2014.html Each course is \$2000.00, which includes accomodation at MOTE. To express interest please send an email with 'MEGA 2014' in the subject line to all the instructors (Mikhail Matz <matz@utexas.edu>, Sarah Davies <daviessw@gmail.com>, Rachel Wright <rachelwright8@gmail.com>).

Hope to see you in Florida!

Misha, Rachel and Sarah

- Sarah W. Davies M.Sc. Ph.D. University of Texas at Austin

sarah davies <daviessw@gmail.com>

Poznan Poland Scientific Teaching Sept2-7

We invite faculty, postdoctoral fellows and PhD graduate students to join us to address the strategies for implementing learner-centered biology instruction and how to redesign curricula that reflect the biological sciences in the 21st century.

During a highly interactive 5 days (Tue-Sun), the participants will learn the goals and theory of scientific teaching, why and how to create a learner-centered classroom, how to design an entire course framework, how to develop and use student assessments to inform evidence-based instruction, how to create active learning classes, how to implement cooperative learning and how to build and sustain a professional network for teaching and learning. Throughout the workshop, we will address the practical realities of classroom logistics and time for processing and analyzing student assessment data. By the end of the workshop, participants will have more tools and data to support their decision to teach science as it is practiced, that is, scientific teaching. The workshop is an excellent preparation for biologists who plan to teach during their careers, but participants with all life science backgrounds are encouraged to apply.

This course is the second European edition of the US-based FIRST project (<https://www.msu.edu/~first4/-About.html>). It is organised by Adam Mickiewicz University in Poznan by prof. Izabela MakaÅowska and Joanna Ciomborowska and will be run by prof. Diane Ebert-May from Michigan State University, USA and dr Jarek Bryk from the National Centre for Biotechnology Education at the University of Reading, UK. The course will be run in English.

The course costs 300 Euro, which includes accommodation and food but does not include travel to/from Poznan.

Registration deadline: midnight on Monday, 30th of June. To apply, please send us:

1. Your name, affiliation and position held including if/how much teaching you do and to what audience;
2. An up to 200 words long statement explaining your reason for applying to the workshop and expected outcomes from your participation in relation to your career goals;
3. Curriculum Vitae;
4. An up to 200 words long statement of teaching philosophy;

Please combine all the files into a single pdf file, name it LastnameFirstname.SciTeachPL.pdf and email the finalized application to j.bryk@reading.ac.uk. Please use the same email with any questions about the workshop.

More information about the course is available at <http://scientificteaching.wordpress.com/2014/05/-26/scientific-teaching-workshop-poland/> – Jarek Bryk | www.ncbe.reading.ac.uk/synbio National Centre for

Biotechnology Education University of Reading, 2 Earley Gate, Whiteknights Road Reading, RG6 6AU +44 118 987 37 43 | j.bryk@reading.ac.uk | @jarekbryk
j.bryk@reading.ac.uk

Seattle SummerInstStatGenetics Jul9-25 Jun9Deadline

Many modules in the Summer Institute in Statistical Genetics, July 9-25, are nearing capacity. Ensure a place and save \$100 per module by registering at <http://sigs.biostat.washington.edu> by June 9.

Hope to see you in Seattle,

Bruce

Bruce S Weir Professor and Chair Department of Biostatistics University of Washington Seattle, WA 98195-7232 Phone (206) 221-7947: email bsweir@uw.edu

Bruce Weir <bsweir@uw.edu>

UNordland NGS of NonModelOrganisms Jun10-20 2

PhD course: High throughput sequencing of non-model organisms

Faculty of Biosciences and Aquaculture, University of Nordland, 10 - 20 June 2014

High throughput sequencing technologies are being applied to a wide range of important topics in biology. However, the analyses of non-model organisms, for which little previous sequence information is available, pose specific problems. This course will address the specific strengths and weaknesses of alternative HTS technologies, the computational resources needed for HTS, and how to analyze non-model species using HTS. The course consists of a practical training module on the Ion Torrent PGM, HTS bioinformatics training, and lecturing/seminars of HTS approaches specifically targeting non-model organisms.

A maximum of 12 students will be accepted. The closing date for applications is 15 May.

If you have questions regarding the course, please con-

tact Prof. Truls Moum at tmo@uin.no

Please find a detailed course description and application form here: <http://www.uin.no/omuinn/fakulteter/-fba/phdakovakultur/courses/Pages/High-throughput-sequencing-of-non-model-organisms.aspx> I would appreciate if the text could be amended as soon as possible.

I am looking forward to hearing from you.

Kind regards, Jeanett

Jeanett Kreutzmann <Jeanett.Kreutzmann@uin.no>

UTexas ElPaso BrachionusSpeciesComplex Aug5-10

Cryptic Speciation in *Brachionus plicatilis*

A Workshop to describe species within the complex

Hosted by the University of Texas at El Paso August 5-10, 2014

We are pleased to announce a workshop aimed at formally describing members of the *Brachionus plicatilis* cryptic species complex. This complex is one of the most intensively studied model organisms of microinvertebrates, and is used extensively in aquaculture.

The objective of the workshop is to produce a manuscript for submission to *Zootaxa* that includes a formal description of undescribed members of the *B. plicatilis* species complex. Participants will learn how to bring together genetic, morphological, and biogeographical data in describing new species.

The organizers will train participants in DNA phylogenetics as well as preparing trophi mounts and other materials for voucher specimens for deposition in museum collections. We will deposit type material in the two largest repositories of rotifer types worldwide, the collection at the Academy of Natural Sciences of Drexel University (<http://www.ansp.org/>), and that at the Royal Belgian Institute of Natural Sciences (<http://www.naturalsciences.be/>).

Registration form and additional information is attached. Please feel free to contact any of the workshop organizers if you have questions.

Workshop Organizers:

Diego Fontaneto, Ph.D. National Research Council Institute of Ecosystem Study Largo Tonolli 50 28922 Ver-

bania Pallanza Italy diego.fontaneto@gmail.com

Hendrik Segers, Ph.D. Belgian National Focal Point to the Convention on Biological Diversity Operational Directorate Natural Environment - OD Nature Royal Belgian Institute of Natural Sciences Rue Vautier / Vautierstraat 29, B - 1000 Brussels Belgium hsegers@naturalsciences.be

Robert L. Wallace, Ph.D. Department of Biology Ripon College 300 Seward Street Ripon, WI 54971-0248 wallacer@ripon.edu

Elizabeth J. Walsh Interim Chair Department of Biological Sciences 500 W. University Ave. University of Texas at El Paso El Paso, TX 79968 Office: 915-747-8894 <tel:915-747-8894> Lab: 915-747-6989 <tel:915-747-6989> ewalsh@utep.edu

"Walsh, Elizabeth" <ewalsh@utep.edu>

UTrento Italy CogEvo Jul7-9 Reminder

Dear Colleagues,

the deadline for the abstract submission to CogEvo 2014 is approaching. You can register from the workshop website <http://events.unitn.it/en/cimec-cogevo2014> by May 23rd.

The workshop on Cognition and Evolution (CogEvo 2014) will take place at the Center for Mind/Brain Sciences, at the University of Trento (Italy), in Rovereto from July 7-9, 2014. The theme for this year's workshop is 'Foundations of Social Cognition'.

Invited speakers: Gergely Csibra, Central European University (Hungary); Pierfrancesco Ferrari, University of Parma (Italy); Kiley Hamlin, University of British Columbia (Canada); Per Jensen, Linköping University (Sweden); Tetsuro Matsuzawa, Kyoto University (Japan); Rui F. Oliveira, University of Lisbon (Portugal); Kristin Shutts, University of Wisconsin-Madison (USA); Charles T. Snowdon, University of Wisconsin-Madison (USA).

The goal of this workshop is to provide a unique forum for researchers from a range of perspectives who are interested in cognition, neuroscience and evolution, to come together to discuss their research and develop new directions and collaborations.

The best five poster abstracts will each be awarded 200

euros.

For more details on the workshop, please visit:
<http://bit.ly/1rfQ9Us> Information: comunicazione-rovereto@unitn.it

Giorgio Vallortigara, Ph.D., FSB Professor of Neuroscience Center for Mind/Brain Sciences - Director University of Trento Corso Bettini 31, I-38068 Rovereto,

Italy Italy E-mail: giorgio.vallortigara@unitn.it
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Mobile: +39 347 1417478 Personal webpage:
<http://www.unitn.it/en/cimec/11761/giorgio-vallortigara> www.cambridge.org/9781107005358
www.cambridge.org/9780521183048 “Vallortigara, Giorgio” <giorgio.vallortigara@unitn.it>

Instructions

Instructions: To be added to the EvolDir mailing list please send an email message to Golding@McMaster.CA. At this time provide a binary six letter code that determines which messages will be mailed to you. These are listed in the same order as presented here — Conferences; Graduate Student Positions; Jobs; Other; Post-doctoral positions; WorkshopsCourses. For example to receive the listings that concern conferences and post-doctoral positions this would be 100010. Messages are categorized on the basis of their subject headings. If this subject heading is not successfully parsed, the message will be sent to me at Golding@McMaster.CA. In addition, if it originates from ‘blackballed’ addresses it will be sent to me at Golding@McMaster.CA. These messages will only be read and dealt with when I have time. The code 000000 has all channels turned off and hence gets only a once monthly notification of the availability of a monthly review pdf file.

To be removed from the EvolDir mailing list please send an email message to Golding@McMaster.CA. Note that ‘on vacation’, etc, style messages are automatically filtered and should not be transmitted to the list (I hope), but should you wish to avoid the e-mail’s your code can be temporarily changed to 000000.

To send messages to the EvolDir direct them to the email evoldir@evol.biology.McMaster.CA. Do not include encoded attachments and do not send it as Word files, as HTML files, as L^AT_EX files, Excel files, etc. . . . plain old ASCII will work great and can be read by everyone. Add a subject header that contains the correct category “Conference:, Graduate position:, Job:, Other:, Postdoc:, Workshop:” and then the message stands a better chance of being correctly parsed. Note that the colon is mandatory.

The message will be stored until the middle of the night (local time). At a predetermined time, the collected messages will be captured and then processed by programs and filters. If the message is caught by one of the filters (e.g. a subject header is not correctly formatted) the message will be sent to me at Golding@McMaster.CA and processed later. In either case, please do not expect an instant response.

Afterword

This program is an attempt to automatically process a broad variety of e-mail messages. Most preformatting is collapsed to save space. At the current time, many features may be incorrectly handled and some email messages may be positively mauled. Although this is being produced by L^AT_EX do not try to embed L^AT_EX or T_EX in your message (or other formats) since my program will strip these from the message.