

## 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.

## \_\_\_\_ / \_\_\_\_

oreword	1
Conferences	.2
GradStudentPositions	13
obs	45
Other	<del>3</del> 8
PostDocs	31
VorkshopsCourses	)6
nstructions	11
Afterword	12

## Conferences

Beijing PlantSystematics July7-9	. 2
CornellU OriginSpecies Jul22-23	.3
CornellU OriginSpecies Jul22-23 2	.4
Denmark EvolutionaryPotential Apr11-14	
Leiden BiologicalMirrorImages Nov30	5
Leuven DaphniaGenomics Mar26-30	. 6
Lisbon PortugueseEvolutionaryBiology Dec21	. 6
Manchester CommunityGenetics Jan7-8	. 7
MexicoCity BarcodeOfLife Nov7-12 LastDay	

#### **Beijing PlantSystematics July7-9**

#### International Conference

New Frontiers in Plant Systematics and Evolution Beijing, China July 7-9, 2010

#### FIRST ANNOUNCEMENT

Objectives Systematic biology faces tremendous challenges and opportunities at the present time. This conference aims at providing an opportunity for plant systematists and evolutionary biologists to review the progress, evaluate the current status, and look into the future of the field. China hosts enormous plant diversity that has supported its long history and continuous advancement in studying plant systematics. With especially rapid progress made during the recent years, 2010 comes to be the time for China to invite colleagues from the world to discuss the new frontiers of systematic biology. This would provide an ideal forum for Chinese and international colleagues to present research results, exchange ideas, discuss common interests, develop collaborations, stimulate young students, and move the field of systematic biology forward. The conference will include talks, posters, and open discussions on recent progress and future directions of the following areas: 1) Taxonomy, collections, and databases; 2) Phylogenetics, phylogenomics, and the Tree of Life; 3) Biogeography and phylogeography; 4) Speciation, hybridization, and adaptation; 5) Molecular evolution, evolutionary

Perth BehaviourEvolution Oct2 SymposiaCall8
QueenMaryU LanguageEvolution Feb268
Rome MolAnthroGenomics Dec3-5 Program9
RutgersU ArthropodDivergenceEstimation Jan8 10
SanDiego GMOD Jan14-1510
UAdelaide Phylogenetics Apr5-10 11
Wierzba Poland PhDEvolBiol May23-2812
Zurich Darwin Nov23-2412

genetics and genomics, and Evo-Devo.

Organizers Botanical Society of China (BSC) Chinese Academy of Sciences (CAS) International Association for Plant Taxonomy (IAPT)

Conference Venue The conference will be held at the Xiangshan Jinyuan Hotel. This five-star hotel is located in the southeast foot of the Fragrant Hill (Xiangshan), one of Beijing's most famous scenic and historical sites. It stands near the precious royal garden with 800 years of history, beautiful landscapes, and elegant environment. The hotel is within walking distance to the Beijing Botanical Garden and the Institute of Botany, the Chinese Academy of Sciences.

Confirmed International Speakers Richard Abbott (University of St. Andrews, UK) Bruce Baldwin (UC Berkelev, USA) Spencer CH Barrett (University of Toronto, Canada) David Baum (University of Wisconsin, USA) Daniel Crawford (University of Kansas, USA) Claude DePamphillis (The Pennsylvania State University, USA) Mitsuyasu Hasebe (National Institute for Basic Biology, Japan) Elizabeth A. Kellogg (University of Missouri, USA) David Mabberley (Roval Botanic Gardens, Kew, UK) Thomas Mitchell-Olds (Duke University, USA) Rémy J. Petit (National Institute for Agricultural Research, France) Yin-long Qiu (University of Michigan, USA) Richard Ree (The Field Museum, Chicago, USA) Tao Sang (Michigan State University, USA) Doug Soltis (University of Florida, USA) Pam Soltis (Florida Museum of Natural History, USA) Peter Stevens (Missouri Botanical Garden, USA) Tod Stuessy (University of Vienna, Austria) Warren L. Wagner (Smithsonian Institution, USA) Jun Wen

(Smithsonian Institution, USA) Jenny Xiang (North hybrid zones and so on, ad infinitum Carolina State University, USA)

Contact Information Conference Secretariat Institute of Botany, Chinese Academy of Sciences 20 Nanxincun, Xiangshan, Beijing 100093, China Email: fengmin@ibcas.ac.cn. zouxh@ibcas.ac.cn Fax: +86-10-62590843

http://www.syst-evol.cn Qiu-Yun (Jenny) Xiang Associate Professor Department of Plant Biology North Carolina State University Raleigh,NC 27695-7612 919-515-2728 (phone) 919-515-3436 (Fax) Jenny\_xiang@ncsu.edu http://www4.ncsu.edu/~qyxiang qyxiang@ncsu.edu

#### CornellU OriginSpecies Jul22-23

Genetics and the Origin of Species: The Continuing Synthesis

A symposium in honor of Richard G. Harrison.

July 22-23, 2010, Cornell University, Ithaca, NY.

For full details, see the website: \_http://rickfest.ucdenver.edu/\_ Invited speakers:

Charles Aquadro Genes or organisms in conflict: what drives the rapid evolution of reproductive genes?

There a Bert Effects of hybridization on the ecology and evolution of western Atlantic stone crabs

Andy Brower "Hybrid speciation" in /Heliconius/ butterflies: is there another explanation?

Richard Broughton Divergence and hybridization in cyprinid fishes

Jonathan Brown The phylogeography of /Eurosta solidaginis /revisited

Tim Collins Finding useful molecular characters for deep phylogenies

Alan de Queiroz Pseudogenes as sensitive indicators of interbreeding between divergent lineages

Erik Dopman Reproductive barriers and the genetic mosaic in pheromone strains of the European corn borer

Rick Grosberg Life histories, mating systems, and multiway conflicts of interests

Matthew Hahn The origin of sex chromosomes in mosquitoes

David Hawthorne Plant hybrid zones beget herbivore

Godfrey Hewitt Quaternary biogeography: the roots of hybrid zones

Dan Howard The role of hybrid zones in studies of speciation

Brad Hyman Rampant gene rearrangement and haplotype hypervariation among nematode mitochondrial genomes

Laura Katz Dynamic genomes: inter- and intraspecific genome variation among eukaryotes

Scott Kelley Effects of evolutionary history, host-plant use and secondary chemistry on gut microbial community diversity of /Longitarsus/ flea-beetles

Damhnait McHugh Phylogeography of a hot vent polychaete species

Sean Mullen Species' life histories and the origins of barriers to gene exchange

Ben Normark Extreme polyphagy, parthenogenesis, and diversification in armored scale insects

Merrill Peterson Unraveling the costs of hybridization in a beetle hybrid zone

Rob Roy Ramey On the origin of specious species

David Rand The cytoplasm as a population and mitonuclear coevolution

Charles Ross Pattern and process in cricket mosaic hybrid zones

Kerry Shaw Evidence for the role of sexual selection in speciation

Felix Sperling MtDNA and insect species delimitation

Willie Swanson Adaptive evolution and coevolution of sperm-egg recognition molecules

Chris Willet The nature of interactions that contribute to post-zygotic reproductive isolation in hybrid copepods.

Gerald Wyckoff How do you tell positive selection from negative selection using protein sequences: molecular evolutionary genetics beyond nucleotide comparisons

Benjamin Normark

Associate Professor Department of Plant, Soil, and Insect Sciences Fernald Hall University of Massachusetts Amherst, MA 01003 USA

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Benjamin Normark <br/> <br/> hormark@ent.umass.edu>

## Denmark EvolutionaryPotential Apr11-14

Conference 11-14 April 2010

âEvolutionary potential in natural populationsâ

Organizers: Trine Bilde, Torsten Nygaard Kristensen, Volker Loeschcke, Dept. Biological Sciences, Aarhus University, Ny Munkegade Building 1540, 8000 Aarhus C, Denmark.

Venue: Sandbjerg Estate, Sandbjergvej 102, 6400 SÃnderborg, Denmark http://www.sandbjerg.dk/eng/welcome.aspx

Scientific content: There is increasing focus on the effect of environmental change on survival and sustain-

ability of natural populations. The ability to adapt to changing ecological conditions and track environmental changes crucially relies on standing genetic variation in the population and hence on evolutionary potential. However, processes that maintain genetic variation in natural populations are enigmatic and poorly understood, and this constrains our ability to understand population responses to environmental impacts.

For this meeting we bring together researchers with a primary focus on evolutionary processes in wild populations and processes affecting evolutionary potential. We have organized three main topics that will be addressed:

1) Studying evolution in wild populations using molecular and quantitative genetic tools. 2) Understanding the processes that lead to loss / generate and maintain genetic variation in natural populations 3) What constrains evolution in natural populations? â plasticity, genetic and environmental constrains

List of confirmed invited speakers:

Ary Hoffmann, University of Melbourne, Australia Anna Qvarnström, Uppsala University, Sweden, Ben Sheldon, University of Oxford, UK, Charles W. Fox, University of Kentucky, USA Ilka Hanski, Helsinki University, Finland, Jacintha Ellers, Vrije University Amsterdam, The Netherlands Jon Slate, University of Sheffield, UK Mikkel Schierup, Aarhus University, Denmark Ruth Shaw, University of Minnesota, USA Tom Tregenza, University of Exeter, UK

Ph.D. course: Ph.D. students can attend the conference as a 5 ECTS Ph.D. course. Students will receive a compendium with original research articles on current research within the topic. They will further be required to write an essay relating to one of the main topics. Full attendance of the entire meeting, preparation through background reading and submission of an essay will be required to obtain 5 ECTS.

Funding: Funding from Nordic and EU sources are available to cover full board and accommodation for the conference, participants must cover travel costs themselves although we may be able to cover travel costs for participants from the Nordic countries (through the NordForsk program âNordic Network for Evolutionary Conservation Biologyâ). Depending on the final budget and sources of funding priority might be given to participants from countries contributing to the EU ESF programme ThermAdapt and Nordic and Baltic countries.

Attendance: apply before 15 January 2010 to Trine Bilde trine.bilde@biology.au.dk Participants that apply for a contributed talk should indicate in which of the main topics they prefer to speak.

Time schedule: Travel should be planned with arrival during the afternoon/evening on 11 April. Dinner will be provided on 11 April and the conference will end after lunch on April 14.

Travel: The closest airport is the domestic SAnderborg Airport which can be reached from Copenhagen Airport. There are also train connections from Copenhagen Airport.

Billund Airport is relatively close and has many excellent connections to European cities; you might consider Billund rather than Copenhagen Airport. Another option is Hamburg Airport. We will try to arrange common pickup transportation from local airports.

Specific and detailed information on how to reach Sandbjerg Conference Centre can be found here: http://www.sandbjerg.dk/eng/welcome/information/how-to-find-the-sandbjerg-estate.aspx Torsten Nygaard <Torsten.Nygaard@agrsci.dk>

## Leiden BiologicalMirrorImages Nov30

On Monday, November 30<sup>th</sup>, the one-day symposium /Through the Looking Glass/ will be held at museum Naturalis in Leiden. In this symposium, the genetics, development, evolution, and ecology of asymmetry and mirror images in animals and plants will be explored through nine lectures, among which the keynote lecture by KNAW visiting professor Richard Palmer (Univ. Alberta, Canada). The programme is available at: http://science.naturalis.nl/media/-190755/through%20the%20looking%20glass.pdf. In contrast to earlier messages, the symposium is \_free\_. However, registration is required by sending an email to Ms. Liselot Paauw (paauw@naturalis.nl <mailto:paauw@naturalis.nl>). Please forward this message to other interested parties.

Menno Schilthuizen

t.j.m.van.dooren@biology.leidenuniv.nl

Leuven DaphniaGenomics Mar26-30

Daphnia Genomics Consortium (DGC) Meeting 2010

When: 26th through 30th of March, 2010 Where: Leuven, Belgium

Pre-registration and abstract submission is now open! http://bio.kuleuven.be/DGCmeeting2010.html Early registration and abstracts submission deadline is January 15, 2010.

Please register early, because space is limited to 120 participants.

Dear colleagues and friends,

We are pleased to invite you to the DGC Meeting 2010.

The Daphnia Genomics Consortium (DGC) is an international network of scientists with a common goal to foster the freshwater crustacean Daphnia as a premier model system for genomics in ecology, evolution and the environmental sciences.

This meeting aims to bring together the members of the consortium at large, to facilitate the exchange of information on recent developments and results obtained from the ongoing investigations into the genome biology of Daphnia. Additionally, we welcome researchers working with Daphnia who are not yet DGC participants and researchers working with other model or nonmodel organisms in the field of ecological genomics.

The DGC meeting will have a significant impact on the future development of the research groups involved in the consortium. By this time, we will have finalized our initial investigations of the draft D. pulex genome sequence, and we will begin the work of exploring data obtained from the D. magna genome sequencing project. This upcoming meeting continues the tradition of also promoting collaborations between researchers working within related disciplines, including limnology, ecotoxicology, quantitative and population genetics, systematics, molecular biology and evolution, developmental biology, genomics and bioinformatics.

The meeting will have plenary lectures from keynote speakers in several research fields related to Daphnia and other model organisms. The symposia of our meeting will touch on several research topics:

\* Ecology and Evolutionary Genomics \* Toxicology and Environmental Genomics of Natural and Human Stressors \* Genotype by Environment Interactions \* Comparative Genomics and Development \* Gene Expression and Gene Function

Plan to also learn about the latest open source bioinformatic and high-throughput research tools, including databases, expression and genotyping microarrays, mapping panels for trait locus mapping, molecular genetic protocols and services.

The venue is at the five century-old Katholieke Universiteit Leuven, in Belgium. Leuven is a beautiful medieval town that combines a rich historical patrimonium with a cheerful, flourishing city culture and a creative atmosphere for lively exchanges and debates.

We look forward to welcoming you in Leuven.

The local organization committee (Luc De Meester, Luisa Orsini, Ellen Decaestecker, Kevin Pauwels, Mieke Jansen, Joost Vanoverbeke) and the co-organizers Dries Knapen, Ronny Blust and Wim De Coen (University of Antwerp), Karel De Schamphelaere and Colin Janssen (University of Gent), Michael Pfrender (University of Notre Dame) and John Colbourne (Indiana University).

on behalf of the committee

Dr Luisa Orsini Laboratory of Aquatic Ecology and Evolutionary Biology, Katholieke Universiteit Leuven, Ch. Deberiotstraat 32, 3000 Leuven, Belgium

Phone: +32 016323707 Fax: +32 016320771 e-mail luisa.orsini[at]bio.kuleuven.be website:http:// /bio.kuleuven.be/de/dea/people.php Luisa Orsini <luisa.orsini@bio.kuleuven.be>

## Lisbon PortugueseEvolutionaryBiology Dec21

Dear all,

We are please to announce that the 5th Portuguese Evolutionary Biology Meeting will take place at Instituto Superior de Psicologia Aplicada (ISPA) in Lisbon on December 21st 2009. It is being organized by Unidade de Investigação em Eco-etologia and Centro de Biociências do ISPA (Rua Jardim do Tabaco, 34, Lisbon).

The Portuguese Evolutionary Biology Meetings aim to bring together Portuguese researchers and to promote Evolutionary Biology in Portugal. They are held in late December to allow researchers in foreign institutions to attend, given that many spend their Winter break in Portugal.

To celebrate this special year, we will have Prof. Douglas Futuyma (Stony Brook University, NY, USA) as an invited speaker. The remainder presenters will be

#### December 1, 2009 EvolDir

either Portuguese or working in Portugal.

Presenters should register by sending a message to biologia.evolutiva@gmail.com with the following information:

- Presentation title, - Name and affiliation, - Topic - Short abstract

The deadline for registration is November 30th. Portuguese and English will be the official languages of the meeting.

Also, we are happy to announce that we will discuss the creation of the Portuguese Evolutionary Biology Association. This idea has been on table for some time now and we will decide if this is the time to formalize it.

We would appreciate ample distribution of this announcement.

Best regards,

The Organizing Committee

(Posted by Sara Branco)

– Sara Branco Committee on Evolutionary Biology University of Chicago 1025 E 57th St Culver Hall 402 Chicago, IL 60637 USA

sara.mayer.branco@gmail.com

### Manchester CommunityGenetics Jan7-8

Please can I remind you of the upcoming deadline for registration at:

The 1st European Community Genetics Conference "Forward from the Crossroads of Ecology and Evolution"

January 7-8th 2010 at The University of Manchester, Manchester, UK

Sponsored by the British Ecological Society

Abstract submissions now open

Registration and abstract submission deadline 30th November 2009

Speakers - Dr. Marc Johnson, North Carolina State University Dr. Tom Little, University of Edinburgh

Registration £68 Bed and breakfast from £55 per night

For more information and registration forms please visit the conference website: www.community genetics.eu Or contact Jenny Rowntree: jennifer.rowntree@manchester.ac.uk

Dr Jennifer Rowntree Preziosi Lab Faculty of Life Sciences University of Manchester Smith Building Oxford Road Manchester M13 9PT

+44-(0)161-2755108

http://web.me.com/jkrowntree/-Jennifer\_K\_Rowntree/Jennifer\_K\_Rowntree.html

1st European Community Genetics meeting 7-8th January 2010 The University of Manchester http://www.communitygenetics.eu/ jennifer.rowntree@manchester.ac.uk

## MexicoCity BarcodeOfLife Nov7-12 LastDay

Last Day for Conference Registration

The online system for advance registration (https:/-/secure37.softcomca.com/servimed\_com\_mx/bol09/registration.htm) to the Third International Barcode of Life Conference (www.dnabarcodes2009.org) will close at midnight CST on Friday, 30 October 2009. After that, people wishing to attend the conference will have to register on-site. The conference fee for onsite registration will be:

\* US\$300 for delegates, \* US\$175 for delegates from developing countries, and \* US\$100 for students

The registration fee entitles you to:

\* Admission to all the pre-conference workshops and conference sessions; \* Lunches and coffee breaks during the pre-conference workshops and conference meetings \* Bus transportation between the two conference hotels and the pre-conference and conference venues; \* Admission to the opening reception on Monday evening, 9 November 2009; \* Admission to the closing banquet on Wednesday evening, 11 November 2009; \* Bus transportation to the opening reception and closing banquet with return to the two conference hotels; and \* Copies of the conference documents.

#### Final Travel Information

All conference registrants will be receiving an information packet by e-mail during the week of 2-6 November. This will include information on how to get from the airport to the hotel and from the hotel to the meeting venues. This information will also be posted on the conference website (www.dnabarcodes2009.org).

Accompanying Persons

Registrants are welcome to bring traveling companions to the conference's opening reception (Monday evening, 9 November) and closing banquet (Wednesday evening, 11 November) for a fee of US\$100. Tickets can be purchased at the registration desk during the pre-conference workshops and the conference.

David E. Schindel, Executive Secretary

Consortium for the Barcode of Life 202/633-0812; fax 202/633-2938; portable 202/557-1149 Email: SchindelD@si.edu CBOL WEBSITE: http://www.barcoding.si.edu

Office and overnight delivery address:

National Museum of Natural History Room CE-119 10th & Constitution Avenue, NW Washington, DC 20560

Postal mailing address:

National Museum of Natural History Smithsonian Institution P.O. Box 37012, MRC-105 Washington, DC 20013-7012

"Schindel, David" <schindeld@si.edu>

## Perth BehaviourEvolution Oct2 SymposiaCall

ISBE 2010 in Perth (Western Australia): Call for symposia The organising Committee for the 13th International Behavioural Ecology Congress 2010 invite you to submit Symposia Topics for sessions following the main congress.

There will be the opportunity to convene up to 6 symposia which will take place at the Perth Convention Exhibition Centre on the morning of Saturday October 2 from approximately 9:00 to 12:00 (including a coffee break). Each session will have space for up to 100 participants.

Please provide the organizers names, affiliations, and email addresses, and a half to one page proposal for the project. Include a justification for why it is an important and timely topic.

A local committee will judge the most promising ones in the event that many proposals are submitted. The symposium organizers will be free to manage the session as they wish, but all participants must be registered ISBE 2010 delegates.

Applications can be sent to Leigh Simmons lsimmons@cyllene.uwa.edu.au by December 1 2009.

For more information about the conference please visit http://www.isbeperth2010.com/ We are looking forward to hear from you

The ISBE organizing committee

New Website: http://www.ciber.science.uwa.edu.au Boris Baer Queen Elizabeth II fellow Center for Evolutionary Biology ARC Center of Excellence in Plant Energy Biology School of Animal Biology (MO92) MCS Building M 310 The University of Western Australia The University of Western Australia Crawley Crawley WA 6009 WA 6009 Australia Australia phone: + 61 8 6488 1773 phone: +61 8 6488 4495 fax: +61 8 6488 1029 fax: +61 8 6488 4401 E-mail: bcbaer@cyllene.uwa.edu.au

Boris Baer <br/>cbcbaer@cyllene.uwa.edu.au>

## QueenMaryU LanguageEvolution Feb26

Integrating Genetic and Cultural Approaches to Language - CEE 2010 Symposium Date: Friday, 26th February 2010 (9am-5pm) Location: Queen Mary University of London

Please find below details of a one-day symposium at Queen Mary University of London.

Description: This symposium will ask how the diverse and complex languages of today evolved from a nonlinguistic ancestral state, encompassing both genetic evolution (of the language faculty) and cultural evolution (of languages themselves). Topics to be addressed include comparative studies of vocal communication in birds, ungulates and primates, the genetic and neurobiological basis of human speech and language, cognitive influences on language evolution, and phylogenetic analyses of language history.

Speakers and talk titles: Tecumseh Fitch, University of Vienna - Language Evolution: Testing the Hypotheses with Comparative and Genetic Data Simon Fisher, University of Oxford - Molecular windows into speech and language Chris Petkov, University of Newcastle -Communication and the primate brain: Insights from comparing the neuroimaging evidence in humans, chimpanzees and macaques Gabriel Beckers, Max Planck Institute for Ornithology - Mechanisms of bird vocal production, perception and learning: a comparison to speech and language. Katie Slocombe, University of York - Primate vocal communication: links to human language? Mark Pagel, Reading University - Language as a Culturally Transmitted Replicator Kenny Smith, Northumbria University - Language evolution in the lab Fiona Jordan, Max Planck Institute for Psycholinguistics - Kinship terminology and the evolution of semantic systems Nick Chater, University College London - Cultural Evolution and Language Acquisition Dan Dediu, Max Planck Institute for Psycholinguistics - Are languages really independent from genes? If not, what would a genetic bias affecting language diversity look like?

The website is online for registration and/or poster abstract submission and/or hotel accomodation booking in nearby Stratford, London (special reduced rate). The symposium only has 65 places remaining. http://sites.google.com/site/cee2010symposium/ Mc-Graw Hill have given us a £100 Amazon voucher for the best student poster. http://sites.google.com/site/cee2010symposium/poster-submission Best regards,

Alan McElligott Alex Mesoudi School of Biological and Chemical Sciences Queen Mary University of London http://psychology.sbcs.qmul.ac.uk/index.html Symposium support: The Centre for Ecology and Evolution The Galton Institute The Genetics Society School of Biological and Chemical Sciences, QMUL Department of Linguistics, QMUL

Dr. Alan McElligott School of Biological and Chemical Sciences Queen Mary University of London Mile End Road London E1 4NS Tel. + 44 (0)20 7882 8883
Fax + 44 (0)20 8983 0973 a.g.mcelligott@qmul.ac.uk http://sites.google.com/site/alanmcelligott/ http://www.sbcs.qmul.ac.uk/staff/alanmcelligott.html Alan McElligott <a href="mailto:</a> Alan McElligott</a>

#### Rome MolAnthroGenomics Dec3-5 Program

"Molecular Anthropology on the Genomic Era" - International conference in Rome (Italy), December 3-5, 2009

Dear Evoldir Members,

the final scientific program of the international confer-

ence "Molecular Anthropology on the Genomic Era" held next December (3-5) in Rome (Italy) is now available!

Among the speakers: Quentin Atkinson (UK), Guido Barbujani (Italy), Francesc Calafell (Spain), Mark Collard (Canada), David Comas (Spain), Daniel Falush (UK), Claudio Franceschi (Italy), Mark Jobling (UK), Connie Mulligan (USA), Martin Richards (UK), Jorge Rocha (Portugal), John Novembre (USA)

Conference website: http://www.mnhn.fr/mnhn/ecoanthropologie/Rome2009/Rome\_index.html REG-ISTRATION IS OPEN. See you in Rome!

The structure of the conference is to present state-ofart research continent by continent since, as a matter of fact, the research of many colleagues is geographically focused. Our objective is to contribute examples and ideas that will drive further integration of molecular anthropology and other research fields and disciplines. Particular attention will be given to the impact of new analytical methods but also, and more traditionally, to updated and comprehensive syntheses about human diversity, since browsing the ever growing literature requires an enormous time that acts as a barrier among specialists of different areas. The last day will be devoted to human evolutionary research in an interdisciplinary frame. Theories and approaches will be discussed in a challenging way by putting face-to-face molecular anthropologists and experts from other disciplines. We are putting much energy in organizing such latter session since we would like to emphasize the dangers of the hyper specialization mentioned above.

Contact: Franz Manni <manni@mnhn.fr>

Dr. Franz Manni UMR 5145 National Museum of Natural History - Musée de l'Homme

Maître de conferences / Lecturer Executive Editor of "Human Biology", (Wayne State University Press, Detroit (MI), USA www.humbiol.com 1. Physical address: 61, Rue Buffon, 75005 Paris - France 2. Postal address: CP 139, 57 rue Cuvier, 75231 Paris Cedex 05 - France

Tel. 0033 1 44 05 72 84 / 0033 1 44 05 81 60 Fax. 0033 1 40 79 32 31 Email manni@mnhn.fr

Franz Manni <manni@mnhn.fr>

## RutgersU ArthropodDivergenceEstimation Jan8

Northeast arthropod divergence time estimation workshop at Rutgers University, NJ Friday, January 8, 2010 Dr. Jessica Thomas and Dr. Jessica Ware jthomas@aesop.rutgers.edu, jware@amnh.org

The following one-day symposium may be of interest to Evoldir subscribers. Registration is free, but space is limited; please pre-register soon so that we will have an idea of numbers (http://www.doodle.com/z53imdqy23t8w4fg or email: jware@amnh.org).

Details: Friday, January 8th, 2010, from 8:30 am Rutgers, the State University of New Jersey Rutgers Student Center (College Avenue Campus Centre), 124 College Ave, New Brunswick, NJ, 08901, USA

Hosted at Rutgers University, sponsored by the Office of the Executive Dean of Agriculture & Natural Resources (http://execdeanagriculture.rutgers.edu/), the Department of Ecology, Evolution & Natural Resources (www.rci.rutgers.edu/~ deenr/), the Department of Entomology (http://www.mosquito.rutgers.edu/index.html), and the Office for the Promotion of Women in Science, Engineering and Math (WiSEM) (http://rufair.rutgers.edu/; Rutgers University is a recipient of an NSF ADVANCE grant).

Organizers: Dr. Jessica Thomas (jthomas@aesop.rutgers.edu) & Dr. Jessica Ware (jware@amnh.org) Executive Sponsors: Executive Dean Dr. Robert Goodman, and Chair of Department of Ecology and Evolution, Dr. Henry John-Adler

This is a one-day symposium.

Background: Divergence time estimation is an exciting current area of interest, and we are seeing great advances in both methodologies and taxonomic coverage. Research on arthropod divergences is vital due to their extreme biodiversity and both ecological and economic importance. Dating in arthropods can provide insight into fascinating questions such as the timing of the great angiosperm divergence, co-evolution of parasites and hosts, and a variety of other aspects of life on earth, encompassing subject areas across anthropology, vector biology, paleontology, geology and geography.

This workshop on molecular dating in arthropods in-

tends to provide an opportunity to share new methodological advances, explore current results on taxa of interest and provide interface time among fossil and molecular researchers. The set up of this workshop is specifically aimed to promote networking and collaboration, with extended lunch and coffee times provided for discussion.

We have a broad program of speakers, ranging from molecular researchers to paleontologists, with a diverse range of talks from organismal work to methodology.

Speaker line-up: Sarah Boyer, Sean Brady, Frank Burbrink, Seth Bybee, CJ Geraci, David Grimaldi, Akito Kawahara, Karl Kjer, Jessica Light, Corrie Moreau, Sergios-Orestis Kolokotronis, Chris Owen, Alex Pyron, Sara Ruane, Hojun Song, Gavin Svenson, Jessica Thomas, Jessica Ware.

Rutgers University is centrally located in the Northeastern US, ideal for easy accessibility by car, Amtrak, NJ transit or plane (Newark, JFK or LaGuardia). For maps please visit: http://rumaps.rutgers.edu/ Register at: http://www.doodle.com/z53imdqy23t8w4fg or contact the organizers by email. You can also find this meeting on facebook: http://www.facebook.com/event.php?eid=184322426771&ref=mf where we will post details of the official event website, which is coming soon!

Jessica Ware <jware@amnh.org>

#### SanDiego GMOD Jan14-15

The next GMOD meeting will be held January 14-15 in San Diego, California, USA, immediately after the Plant and Animal Genome (PAG) conference. There is no registration fee for this meeting. However, there is limited space, so please register early. See the meeting page for more information: http://gmod.org/wiki/-January\_2010\_GMOD\_Meeting . GMOD is a collection of interoperable open source software components for visualizing, annotating, and managing biological data. GMOD is also a community of users and developers asking diverse questions, and facing common challenges, with their biological data. GMOD has many widely used software packages, including GBrowse, Apollo, CMap, Chado, BioMart, MAKER, Galaxy, Textpresso, and many others. The availability and affordability of next generation sequencing (NGS) has made GMOD particularly timely to a wide range of research groups.

#### December 1, 2009 EvolDir

As with previous GMOD meetings, there will be a mixture of project, component, and user talks. The agenda is driven by participant suggestions, and you are encouraged to add yours to the meeting page when you register. There will also be a number of satellite meetings focusing on particular areas of interest.

Thanks,

Dave Clements GMOD Help Desk

- http://gmod.org/wiki/-January\_2010\_GMOD\_Meeting http://gmod.org/wiki/GMOD\_News clementsnescent@gmail.com

### **UAdelaide Phylogenetics Apr5-10**

Adelaide Phylogenetics Conference April 12-16, 2010, Port Elliot, South Australia

and the

Adelaide Phylogenetics workshop April 5 -10, 2010 University of Adelaide

The third annual Adelaide Conference on Phylogenetics (formerly Mathematical & Evolutionary Biology) will be held on Port Elliot beachfront, South Australia from April 12-16, 2010. This meeting follows the successful meetings held in Blanche Cave, Naracoorte 2008 (http://www.adelaide.edu.au/acad/events/biomaths08/) and Port Elliot 2009 (http://www.adelaide.edu.au/acad/events/biomaths09/). The Port Elliot meeting series aims to bridge the current gap between evolutionary biologists and mathematicians in Australia, and overseas, by providing a relaxed, informal setting (with just 50 attendees) to encourage the discussion of new results and methods. The conference is designed to allow maximum student/academic interaction, and contains a session on the analysis of datasets during the meeting itself. The emphasis is on the development and application of advanced new analytical methods, and building trans-disciplinary collaborations. Topics covered at the previous meeting include: Phylogenetics and Networks; Mathematical methods and Algorithms; Macroevolution; Evolutionary rates and dates; Genome analysis; Bioinformatics; Human evolution; Disease. (A full list of abstracts from 2008 and 2009 is available at the website above).

Confirmed conference attendees include: Masami Hasegawa, David Penny, Mike Hendy, Dave Bryant, Mike Steel, Matt Phillips, Lars Jermin, Simon Ho, and workshop presenters Alexei Drummond, Peter Lockhart, Christian Anderson, and Andrew Storfer.

The conference features one day devoted to data analysis/recreation with scheduled activities around the Port Elliot area including wine tours, beach activities, or optional data analysis sessions. Important prizes at the Port Elliot meeting include the highly coveted Napkin Award (for the best mathematical solution to a biological problem solved at the conference). Entries must be submitted on the original napkin to allow artistic merit to be considered. The winners of the 2008 award (Profs. Allen Rodrigo and Nigel Bean) can be seen with their entry here (http://www.adelaide.edu.au/acad/events/biomaths08/). This year, a new award ('The Ashes') celebrating trans-Tasman phylogenetic rivalry will be inaugurated, with an official urn containing ashes of actual Mike Steel lecture props used in Port Elliot in 2009.

We will also repeat the extremely successful Phylogenetics Workshop for graduate students, run prior to the conference by the Australian Centre for Ancient DNA at the University of Adelaide from April 6-10 (Easter week). This small workshop (limited to 20 attendees) features an intensive 5 day hands-on training from 4 international experts, in leading software packages for the analysis of genetic data: Dr. Alexi Drummond (BEAST), Prof. Peter Lockhart (Phylogenetic methods) Christian Anderson (Serial SimCoal), and Andrew Storfer (Landscape Genetics). These leading experts provide detailed instruction on the analysis of model and actual datasets, and there is a strong demand for places. Interested graduates are encouraged to apply for travel funds from their host institutions. Workshop graduates are strongly encouraged to attend and present in Port Elliot where they have free registration.

Please visit http://www.adelaide.edu.au/acad/events/phylo\_workshop10.html for further details. The cost and program details of the above two events will be posted shortly at http://www.adelaide.edu.au/acad/events/biomaths10/. As spaces are strictly limited early registration is strongly advised. –

Prof. Alan Cooper ARC Federation Fellow Director, Australian Centre for Ancient DNA

Email: alan.cooper@adelaide.edu.au Ph: 61-8 -8303-5950/3952 Fax: 61-8-8303 4364

http://www.adelaide.edu.au/acad/ Mailing Address: Darling Building University of Adelaide North Terrace Campus South Australia 5005 Australia

alan.cooper@adelaide.edu.au

## Wierzba Poland PhDEvolBiol May23-28

First Announcement of 16th European Meeting of PhD Students in Evolutionary Biology

Dear All,

We are pleased to invite you to EMPSEB16, which is going to be held 23 - 28 May 2010 in Wierzba, Poland.

The EMPSEB is an annual meeting aimed to bring PhD students in evolutionary biology from all across Europe together in an informal atmosphere. You get the opportunity to present your work and discuss new ideas with your peers in a relaxed and social environment. 6-8 senior scientists working on various topics are also invited to give plenary talks and to provide experienced guidance to start your scientific career.

The meeting is now an annual tradition that started 14 years ago with the first meeting back in 1995 being held in Zurich, Switzerland.

Next year, in May 2010, 16th EMPSEB will be held in the heart of Mazurian Lakeland, at the beautiful location of Wierzba.

Registration will be open to 80 PhD students. We aim to provide travel grants for students that can not get funding from their own university.

More information will be made available soon. If you want to be informed regularly, send us an e-mail, so we can add you to our mailing list: empseb2010@biol.uw.edu.pl

We are looking forward to welcoming you in Poland!

EMPSEB 2010 organising committee: Barbara Pietrzak, Anna Bednarska, Julia Budziszewska, £ukasz Dziewit, Ma<sup>3</sup>gorzata Grzesiuk, Anna Karnkowska, Piotr Maszczyk (University of Warsaw) and Agata Jakubowska, Agnieszka Marek (Jagiellonian Univeristy)

Barbara Pietrzak <b.pietrzak@uw.edu.pl>

# PLEASE NOTE THE FOLLOWING CONFERENCE IN ZURICH (23/24 NOV)

Latsis Symposium: Darwin's legacy A symposium in honor of the 150th anniversary of the publication of "The Origin of Species" Organizers: Sebastian Bonhoeffer (ETH Zurich) and Uli Reyer (University of Zurich)

23 & 24November 2009, ETH Zurich, Auditorium Maximum, Rämistrasse101

PROGRAM (23 Nov 2009) 8.30-8.45 Welcome Address 8.45-9.45 Christiane Nüsslein-Volhard (MPI Tübingen) "Scales and Stripes: Genetic analysis of the development of the adult structures in Zebrafish" 10.15-11.15 Pim Stemmer (Ammunix, Inc) "Directed Evolution by Molecular Breeding: a powerful and widely used process to solve complex industrial problems" 11.15-12.15 Svante Pääbo (MPI Leipzig) "Reconstructing the Molecular Origins of Humans" 14.00-15.00 J. Craig Venter (J. Craig Venter Institute) "Taking over Evolution" 15.00-16.00 Andrew H. Knoll (Harvard University) "The Deep History of Life" 16.30-17.30 Martin A. Nowak (Harvard University) "Evolution of Cooperation"

PROGRAM (24 Nov 2009) 9.00-10.00 Rosemary & Peter Grant (Princeton University) "Darwin's Finches" 10.30-11.30 Tim Clutton-Brock (University of Cambridge) "The Evolution of Society" 11.30-12.30 Dame Linda Partridge (MPI Köln) "The New Biology of Ageing" 14.00-15.00 Robert, Lord May of Oxford (Oxford University) "The Darwinian Dynamics of the Banking System 15.00-16.00 David Haig (Harvard University) "Emma Darwin and the evolution of human childhood" 16.30-17.30 Karl O. Stetter (University of Regensburg) "Hyperthermophiles in the History of Life"

Limited seat reservation for a half-day minimum possible via email to info@darwinyear09.ch

—- Sebastian Bonhoeffer Theoretical Biology Institute of Integrative Biology (IBZ) ETH Zurich, Universitaetsstr. 16 ETH Zentrum, CHN K12.1 CH-8092 Zurich Switzerland

Zurich Darwin Nov23-24

## GradStudentPositions

BlackHillsStateU EvolutionaryGenomics13
BrighamYoungU EvolutionaryBiol14
Brisbane Bioinformatics15
CarletonU EvolutionaryTheory15
CarletonU InsectPopulationGenetics $\ldots \ldots 16$
$ChicagoBotanicGarden\ PlantConservation\ \dots\dots\dots 16$
CityUNewYork 2 Biogeography $\dots 16$
DrexelU AntEvolution17
EBI Cambridge Molecular Evolution $\ldots \ldots 17$
$GeorgetownU\ EvolutionaryBiol\ \dots\dots\dots17$
IndianaStateU EvolutionaryGenomics $\dots 18$
IPKGatersleben Hordeum PolyploidSystematics $\ \dots \ 19$
IST Austria EvolutionaryGenetics19
KansasStateU EvolutionGenomics19
Louisiana State U Evolutionary Ecological Genomics $\ . \ 20$
$ManchesterU\ FrogEvolution\ \dots\dots\dots 21$
$MaxPlanckInst\ EvolutionaryDynamics\ \dots\dots\dots\ 21$
MaxPlanck OrganismalBiology $\ldots \ldots 22$
$McGillU\ PlantReproduction\ \dots\dots\dots22$
MichiganStateU FishPopulationGenetics $\ldots \ldots 23$
${\it Middle Tennessee State U\ Molecular Systematics\ \ldots \ 23}$
NewZealand 2 Microbial Evolution $\ldots \ldots 23$
NewZealand Marine PopulationGenetics $\ldots \ldots 24$
NewZealand MothSexualSelection $\ldots \ldots 25$
Northern Arizona U Evolutionary Biol $\dots\dots\dots25$
Northwestern U PlantConservation $\ldots \ldots 26$
NorwegianUSciTech PopulationGenetics $\ldots \ldots 26$
OklahomaStateUniv milkweed phylogeny genomics $\ 26$
Stony BrookU Evolutionary Biology $\ldots \ldots 27$
TexasTechU EvolutionaryEcol27
UBern ConservationBiol

## BlackHillsStateU EvolutionaryGenomics

Black Hills State University - Masters of Science in Integrative Genomics

UBielefeld EvolutionaryBiol
UBritishColumbia EvolGenomics96
UBritishColumbia spiderPhylogeny ecomorphology 29
UBritishColumbia spiderPhylogeny hybridiz sexSel 30
UBuffalo AngiospermGenomes
UCaliforniaSanDiego EvolutionaryBiology31
UGeulph AtlanticSalmon GenomicSelection 32
UGranada EvolutionaryBiol32
UHeidelberg PlantEvolution ChalconeSynthase33
UHelsinki SticklebackParasites
UIdaho ConservationBiology
UIdaho TreeOfLife
UJyvaskyla PathogenResistance
UKansas Hydrozoan EvoDevo
ULeeds UExeter SexRatioDistorter
UMiami EvolutionaryBiol37
UMinnesota EvolutionInvasions
UNebraska EvolutionaryBiology
Univ of Stirling Evolutionary Biology
UNotreDame Speciation Disease
UOulu GooseEvolution
USaskatchewan AdaptationGenomics40
USheffield HouseSparrow MolecularEvolution40
UStAndrews CyanobacterialGenomics41
UWisconsin Milwaukee EvolutionaryEcol42
UWisconsin Milwaukee Phylogeography42
UWyoming MicrobialEvolution43
UZurich Inbreeding 43
YaleU BiogeographyConservation44

Several Masters Graduate Assistant (GA) positions are available for Fall 2010 in Integrative Genomics (IG) Masters program at Black Hills State University, Spearfish, SD. The GA positions are available to students interested in working with any member of the IG faculty (http://www.bhsu.edu/-Academics/TheColleges/CollegeofArtsandSciences/-DepartmentsandPrograms/Masters/Faculty/tabid/-

#### 4950/Default.aspx).

Integrative Genomics is an interdisciplinary graduate program that combines genomics, ecology, evolution, and physiology to better understand the evolutionary forces that have shaped the mechanisms that are important to species interactions in the wild. The program is designed to provide those seeking a Masters degree the necessary skills and concepts to work cooperatively with others in a research area that takes a systems-wide approach and incorporates an organism's history and natural environment to understand organization and expression at the genomic level. Exposure to modern techniques and instrumentation in the laboratory and field prepares students for success in both academic and other biotechnology-related pursuits.

Integrative Genomics GAs receive an annual stipend of \$16,640 and additional funds for laboratory supplies and expenses.

For an overview of the IG program and application information please visit our website http://www.bhsu.edu/Academics/TheColleges/-CollegeofArtsandSciences/DepartmentsandPrograms/-Masters/tabid/2164/Default.aspx or contact

Garth Spellman, Ph.D. Assistant Professor Biology Department Black Hills State University 1200 University Street, Unit 9053 Spearfish, SD 57799-9053 davidsiemens@bhsu.edu

Founded in 1883, Black Hills State University is located in beautiful Spearfish, SD, the hub of the Northern Black Hills with a population of more than 10,000. Located on I-90, 10 minutes from the Wyoming border, Spearfish is only 46 miles from Rapid City, 65 miles from Mount Rushmore National Memorial and is an hour drive from Devils Tower and the Badlands of South Dakota. Spearfish Canyon, one of the oldest and most scenic canyons in the west, is a local favorite for hiking, biking and sightseeing.

– Garth M. Spellman, Ph.D. Assistant Professor of Vertebrate Zoology MSIG Program Director 1200 University Street, Unit 9053 Biology Department Black Hills State University Spearfish, SD 57799-9053

ph:605-642-6043 garthspellman@bhsu.edu http://www.bhsu.edu/artssciences/asfaculty/gspellman/-Welcome.html Garth.Spellman@bhsu.edu Graduate Positions in Evolutionary Biology

Two PhD level graduate research positions are available in evolutionary biology/molecular ecology in the laboratory of Dr. Byron J. Adams at Brigham Young University. The positions are supported by NSF awards and the BYU Department of Biology.

Description: Successful candidates will conduct field and laboratory research on the molecular and evolutionary ecology of terrestrial invertebrates, and help mentor undergraduate student assistants. Projects include, but are not limited to:

- Comparative phylogeography of terrestrial Antarctic invertebrates (nematodes, tardigrades, rotifers).

- Evolution of parasitism, virulence, symbiosis and stress tolerance.

- Role of ecological and evolutionary stoichiometry in Antarctic soil community structure and functioning

- Molecular systematics and molecular evolution of nematodes and tardigrades.

Candidate Experience: Candidates for these positions should have a passion for studying fundamental questions in evolutionary biology and ecology. A background in invertebrate zoology (soil and aquatic meiofauna, especially nematodes, tardigrades or rotifers) is recommended. Experience with molecular biology techniques, phylogenetic/phylogeographic analyses and bioinformatics is a plus, but training in these areas is offered as part of the research assistantship. Fieldwork is an essential component of several of our projects. Candidates should be familiar with invertebrate field sampling techniques and willing to undertake fieldwork in Antarctica and/or western North America.

To apply: Please send a cover letter, curriculum vitae, a statement of research experience that explains your background and specific interests in the project, and names and contact information of at least two scientists available for reference. Anticipated start date is August 2010.

Please email the above materials as a pdf or Word (.doc) document to:

Byron Adams

Email: byron\_adams@byu.edu

Scott Peat <speat@byu.net>

#### **Brisbane Bioinformatics**

PhD Student Position in Transcriptional Profiling

A PhD student position is available in the field of transcriptional profiling in vertebrate and invertebrate species. The project will analyse gene expression levels in conserved genes across evolutionary divergent groups. The study is a collaboration between University and Government with practical outcomes for natural resource management. It is based in the laboratories of Dr Jennifer Seddon in the School of Veterinary Science, University of Queensland (www.uq.edu.au/vetschool) and Dr Jenny Ovenden in the Molecular Fisheries Laboratory in the Department of Primary Industries and Fisheries, Queensland, Australia(www.dpi.qld.gov.au/28\_6844.htm).

We are looking for a motivated student with experience in bioinformatics and basic molecular genetics as the project involves database mining, RNA extraction and real time PCR analyses.

There is currently no scholarship attached to this position but scholarships are available to students through the University of Queensland, awarded on the basis of academic excellence. Further information on scholarships and tuition fees are available at http://www.uq.edu.au/study/scholarships/.

Further information can be obtained by email from Dr Jennifer Seddon (j.seddon1@uq.edu.au) or Dr Jenny Ovenden (Jennifer.Ovenden@deedi.qld.gov.au).

Dr Jennifer Seddon Senior Lecturer in Animal Genetics School of Veterinary Science St Lucia QLD 4072 Australia Tel: +61 (0)7 3365 1278 Fax: +61 (0)7 3365 1255 Email: j.seddon1@uq.edu.au CRICOS No. 00025B

 $j.seddon 1 @uq.edu.au\ j.seddon 1 @uq.edu.au$ 

## CarletonU EvolutionaryTheory

Graduate positions in evolutionary theory with Root Gorelick, Carleton University (Ottawa, ON).

Funding for MSc and PhD students is available for Canadian citizens and permanent residence to study evolution of sex and origins of biodiversity (other candidates would have to come with their own funding). Regarding evolution of sex, our current research includes (1) testing ideas on epigenetic origins of sex as a modification of self sex, (2) explicating the fundamental differences between females and males, (3) understanding what exactly occurs in gynogenesis and how it evolved, and (4) unraveling the steps by which syngamy may have evolved from meiosis. Regarding evolution of biodiversity, we are researching (1) the differences between two forms of polyploidy, genome duplication versus chromosomal fission and (2) environmentally-induced heritable epimutations. We are a theoretical lab, which means formation of new hypotheses and conducting meta-analyses to test these hypotheses. Ideas for research in related subjects is truly welcome. Please see my website of further inf ormation (www.carleton.ca/rgorelic).

Before completing a formal application, please contact me directly (root\_gorelick@carleton.ca). Prior to applying, although not necessarily at the time of your initial inquiry, I shall ask you to provide (1) a summary of your research interests, (2) a curriculum vitae, (3) unofficial scanned transcripts, (4) contact information for at least two university references, and (5) a writing sample.

Carleton University's graduate program in evolution, ecology and behaviour offers the following:

- Guaranteed minimum support of \$18,500 per year (2 years MSc; 4 years PhD [max 5 years]) - Tuition scholarship for students with GPA of 11 (A) or higher (\$3,000/yr MSc; \$6,000/yr PhD) - Heavy emphasis on research; minimal course requirements (2 courses MSc; 2 courses PhD) - Annual research symposium - organized by graduate students, funded by university -Funding to present research at one meeting per year -Weekly biology seminar series, with external speakers - Rich, frequent interactions with faculty & grad students at University of Ottawa - Graduate student pub with decent beer and great science conversation

Root Gorelick, Ph.D. Department of Biology and School of Mathematics & Statistics Carleton University 1125 Colonel By Drive Ottawa, Ontario K1S 5B6 Canada

Voice 613-520-2600 ext. 1586 URL www.carleton.ca/-<sup>~</sup>rgorelic E-mail Root\_Gorelick@carleton.ca

CarletonU InsectPopulationGenetics

Interested in obtaining graduate degree in biology? I am looking for graduate students (PhD or MSc) who want to work with insects. My lab focuses on the general question of how variation is maintained in sexually selected traits. Students in the lab work on sexual selection, acoustic mating signals, aggression, postconflict displays, female mating behavior, behavioral syndromes, and the interplay between diet and behavior.

I have funds available to support a few students who are interested in starting their MSc or PhD program in 2010 (January or September start dates). Applicants must be Canadian citizens or permanent residents (landed immigrant status). Unfortunately, people from outside Canada need not apply as my funds for international graduate students have already been utilized for this year.

If interested, please contact Sue Bertram at:

Email: Sue\_Bertram@carleton.ca

Website: www.carleton.ca/~sbertram Please include the following in your email:

1. Curriculum Vitae 2. Transcripts (unofficial are fine) 3. A statement describing what questions you are interested in focusing on for your graduate research and why 4. A sample of your writing (e.g., a term paper, a thesis, essay, a publication that you wrote)

Regards, Sue

Susan M. Bertram, PhD Assistant Dean of Science Carleton University

 $Sue\_Bertram@carleton.ca$ 

## ChicagoBotanicGarden PlantConservation

#### GRADUATE PROGRAM IN PLANT BIOLOGY AND CONSERVATION AT NORTHWESTERN UNI-VERSITY AND THE CHICAGO BOTANIC GAR-DEN

Northwestern University and the Chicago Botanic Garden jointly offer Master's and Doctoral degrees in Plant Biology and Conservation. The program provides exciting opportunities for research in plant ecology, restoration ecology, soil ecology, climate change, invasive biology, paleobotany, mycology, conservation genetics, evolution, and systematics. There are also opportunities to focus on land management research through paid research internships with federal agencies.

For more information about the program, faculty research interests, and the new research facilities for graduate students, please visit our websites: http://www.plantbiology.northwestern.edu http://www.chicagobotanic.org/research/building/ or contact Nyree Zerega: nzerega@chicagobotanic.org

Nyree Zerega Director Graduate Program in Plant Biology and Conservation Northwestern University and the Chicago Botanic Garden

nzerega@chicagobotanic.org

## CityUNewYork 2 Biogeography

Graduate student positions (2) in Conservation and Biogeography

I have openings for 2 doctoral students in my lab at the City University of New York / College of Staten Island to study biogeography and conservation biology, with particular emphasis on climate change; these positions are to begin in Fall 2010. Please see http://www.library.csi.cuny.edu/~manne for more information on the projects.

Accepted PhD students will receive guaranteed stipends of \$24,000 per year, for up to 5 years, plus full tuition waiver and health insurance.

The City University of New York is comprised of campuses spread across all 5 boroughs of NYC, but there is one graduate program which encompasses all of the campuses, and which is administered from the Graduate Center in Manhattan. If you were to join my lab, you would be part of the Ecology & Evolutionary Biology subprogram of the Biology PhD program of CUNY. Aside from living in a large and interesting city, you would have access to graduate faculty from all campuses of CUNY (City College, Hunter College, Queens College, Brooklyn College, College of Staten Island, Baruch College, Lehman College) as well as Columbia, Rutgers, Stonybrook, and the American Museum of Natural History.

Additionally, the EEB students at the College of Staten Island have a weekly lab meeting (for students and PI's from multiple labs) and they are starting a weekly Ecology journal club. It is an exciting academic environment in which to work!

The deadline for applications is January 1, 2010.

Online applications are available from: http://www.gc.cuny.edu/admin\_offices/admissions/-

online\_app.htm For more info,, or to express interest please contact:

Dr. Lisa Manne email: lisa.manne@csi.cuny.edu http://www.library.csi.cuny.edu/~manne Lisa Manne CSI / CUNY Biology Dept. +1 718 982 3855

Think green before you print this email.

Lisa Manne <Lisa.Manne@csi.cuny.edu>

#### **DrexelU AntEvolution**

The Russell lab at Drexel University (Department of Biology) is seeking motivated Ph.D applicants with interests in symbiosis, molecular ecology, and evolution. Current research investigates:

1) The functional roles of symbiosis in the ecology and evolution of ants

2) The evolutionary histories of interactions between ants and their gut bacteria

3) The roles of host diet and phylogeny in structuring the compositions of microbial gut communities

4) The distributions, significance, and evolution of heritable symbionts of insects

Students will gain rigorous training in experimental biology, molecular techniques, bioinformatics, phylogenetic analyses, and comparative phylogenetic methods.

Interested candidates should send a CV to Dr. Jacob Russell (Jacob.A.Russell@drexel.edu). Guide-lines on applying to the graduate program at Drexel can be found at <a href="http://www.drexel.edu/em/apply/coas/requirements.html">http://www.drexel.edu/em/apply/coas/requirements.html</a>. Jacob Russell <jar337@drexel.edu>

#### EBI Cambridge MolecularEvolution

A PhD position is available in molecular evolution with Nick Goldman at the European Bioinformatics Institute (EBI), Cambridge, UK.

The precise research area is open to discussion, but it is expected to be on a project in molecular phylogenetic methodology. Candidates should have background in maths/stats/computer science/similar highly quantitative areas plus interest in molecular evolution; or background in biological sciences but with demonstrably high mathematical skills. At least some familiarity with computer programming is necessary.

The position is available from October 2010 (earlier by agreement), and will be fully funded by the EBI. Students are selected from amongst highly qualified applicants from all the EMBL member states (see http://www.embl.de/aboutus/general\_information/organisation/member\_states/index.html). External

fellowships fund a smaller number of non-member state nationals.

If interested, it is necessary to register on the online application website by 1 Dec 2009, and applications must be completed in 15 Dec 2009.

Full details are available from:

http://www.ebi.ac.uk/training/Studentships/phd.html (which will in turn lead to the following, and more: http://www.ebi.ac.uk/training/Studentships/phd/howtoapply.html http://www.ebi.ac.uk/training/Studentships/latest.html#NickG http://www.embl.de/training/eipp/application/index.html)

Nick Goldman

Nick Goldman tel: +44-(0)1223-492530 EMBL - European Bioinformatics Institute fax: +44-(0)1223-494468 Wellcome Trust Genome Campus, Hinxton, Cambridge CB10 1SD, UK

#### GeorgetownU EvolutionaryBiol

Multiple PhD Positions Available in Ecology, Evolution and Behavior

The Department of Biology at Georgetown University has multiple opportunities for doctoral study in ecology, evolution and behavior (EEB).

The faculty and graduate program in Biology at Georgetown help doctoral candidates develop into insightful researchers and effective teachers and communicators. Funding for graduate study is supported by a combination of assistantships, teaching fellowships and research grant support. Our program and institution welcomes students of all racial, ethnic and religious backgrounds. Students interested in any of the opportunities listed below are strongly encouraged to contact the relevant faculty member(s) via email. The Department of Biology graduate program is described at http:/-/biology.georgetown.edu/graduate/applicants/. Information about graduate school application procedures and deadlines can be found at http://grad.georgetown.edu/pages/admissions.cfm . Community Ecology and Landscape Genetics: Dr. Gina Wimp is seeking students interested in understanding the mechanisms that lead to the loss of biodiversity and increased risk of extinction in fragmented habitats. Dr. Wimp's work takes place in the intertidal salt marsh where a rise in mean tidal height over the past 60 years has led to a change in the demography of the two dominant grass species, with the more flood-intolerant grass (Spartina patens) contracting in size. She uses manipulative experiments to examine the effects of habitat loss and fragmentation in S. patens on the abundance, diversity and composition of the dependent arthropod community. The Wimp and Hamilton labs have developed microsatellite genetic marker loci to examine the effects of habitat fragmentation on gene flow in two of the dominant herbivore species found in S. patens, both of which are flightless, specialist planthoppers. Interested students should contact Dr. Gina Wimp via email (gmw22@georgetown.edu).

Applicants interested in pursuing graduate research in community ecology will work with Gina Wimp (http:/-/biology.georgetown.edu/ faculty/wimp/research/) and students interested in pursuing research in landscape genetics will work with both Gina Wimp and Matthew Hamilton (http://www9.georgetown.edu/faculty/hamiltm1/). Applicants should have a demonstrated interest in community ecology and/or ecological genetics.

Mechanisms of phenotypic evolution: Dr. Peter Armbruster seeks a highly motivated PhD student to join his laboratory's research on mechanisms of phenotypic evolution in natural populations. The Armbruster lab is currently focusing on the invasive and medically important mosquito Aedes albopictus. This mosquito invaded the US in 1985 and spread rapidly over approximately 15 degrees of latitude. This natural experiment in evolution provides an exciting opportunity to identify the molecular and physiological mechanisms underpinning climatic adaptation during invasion and range expansion. Dr. Armbruster's research is currently supported by grants from both NIH and NSF, and integrates a broad range of approaches, including molecular biology, bioinformatics, physiology, and quantitative genetics. Interested students should contact Dr. Peter Armbruster (paa9@georgetown.edu).

For further information on the Armbruster lab see: http:// www1.georgetown.edu/ departments/ biology/ faculty/ armbruster/

Mathematical Population Biology: Faculty in the Departments of Biology and Mathematics have ongoing collaborations centered on quantitative modeling and analysis of population genetic data. Ongoing projects span a wide spectrum of applications including the development of coalescent models that better suit natural populations in order to infer biological mechanisms acting on genetic polymorphism to the development of novel quantitative models to analyze the evolution of HIV within an infected individual. These projects are highly interdisciplinary, drawing on approaches and techniques from both disciplines.

Dr. Matthew B. Hamilton (Biology) and Dr. Sivan Leviyang (Mathematics) are seeking an outstanding student to pursue a jointly mentored PhD in mathematical biology. The course of study will include classes in biology, mathematics and computer science, with the goal of providing the student with a firm background in population genetics, ecology, statistics, probability, and computation. The specific topic of research is flexible and can favor theory or application depending on the students' interest. The ideal student should possess a bachelor's degree in biology or

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

## IndianaStateU EvolutionaryGenomics

Graduate Student Position in Evolutionary Genomics:

We are looking for a graduate student (MS or PhD) to work on a study of evolutionary behavioral genomics in the white-throated sparrow. Research will utilize new genomic and bioinformatics techniques to study gene structure and expression. Laboratory experience is a must. Application must include cover letter, curriculum vitae, GRE scores and transcripts, and 3 letters of recommendation. Address all inquiries to: Dr. Elaina M. Tuttle, Dept. of Biology, Indiana State University, elaina.tuttle@indstate.edu, or, Dr. Rusty A. Gonser, Dept. of Biology, Indiana State University, rusty.gonser@indstate.edu. Please also see www.whitethroatedsparrow.org for further information and the School of Graduate Studies at Indiana State University for application procedures and requirements.

Dr. Elaina M. Tuttle Associate Professor Department of Biology Indiana State University Science 287E, 403-25 North 6th Street Terre Haute, IN 47809, USA

812-237-2838 fax: 812-237office phone: 3378email: elaina.tuttle@indstate.edu http:/-/www.whitethroatedsparrow.org http://biology.indstate.edu "Nothing in biology makes sense except in the light of evolution." Theodosius Dobzhansky

"Elaina M. Tuttle" <Elaina.Tuttle@indstate.edu>

## IPKGatersleben Hordeum PolyploidSystematics

PhD student position in grass systematics

At the Leibniz Institute of Plant Genetics and Crop Plant Research (IPK Gatersleben, http://www.ipkgatersleben.de) an open position for a PhD student is available from January 2010 for a period of three years in a DFG funded project. The successful PhD candidate will perform phylogenetic analyses based on nuclear single-copy genes in diploid and allopolyploid species of the barley genus Hordeum to arrive at a sound understanding of parental relationships of the polyploids.

Details are available on the web site of the IPK at

#### http://www.ipk-gatersleben.de/Internet/-

Informationen/Jobs Frank R. Blattner Taxonomy & Evolutionary Biology Leibniz Institute of Plant Genetics and Crop Research (IPK) D-06466 Gatersleben Germany

w3: http://www.ipk-gatersleben.de/Internet/-Forschung/Genbank/Experimentell blattner@ipkgatersleben.de blattner@ipk-gatersleben.de

#### **IST** Austria EvolutionaryGenetics

CALL for Ph.D. STUDENTS - IST Austria

The Graduate School at IST Austria invites applicants from all countries to its Ph.D. program. IST Austria is a new institute located near Vienna dedicated to basic research in the natural sciences and related disciplines. The language of the Institute and the Graduate School is English.

The Ph.D. program combines advanced coursework and research, with a focus on Biology, Computer Science, and interdisciplinary areas. IST Austria offers internationally competitive Ph.D. salaries supporting 4-5 years of study. Applicants holding either a BS or MS degree are welcome.

The Institute offers Ph.D. student positions with the following faculty:

Nick Barton – Evolutionary Genetics, Mathematical Biology Jonathan Bollback – Evolutionary Genetics, Experimental Evolution Krishnendu Chatterjee – Computer-aided Verification, Game Theory Herbert Edelsbrunner – Algorithms, Computational Geometry and Topology Cãlin Guet – Systems and Synthetic Biology Carl-Philipp Heisenberg – Cell and Developmental Biology, Biophysics Thomas A. Henzinger – Computeraided Verification, Concurrent and Embedded Systems

Additional faculty members will be announced on the IST website www.ist.ac.at To apply online visit www.ist.ac.at/gradschool For enquiries, please contact gradschool@ist.ac.at

For students wishing to enter the program in the fall of 2010, the deadline for applications is January 15, 2010.

IST Austria is committed to Equality and Diversity. In particular female applicants are encouraged to apply.

Institute of Science and Technology Austria Am Campus 1 A-3400 Klosterneuburg, Austria

bollback@gmail.com

### KansasStateU EvolutionGenomics

GAANN PHD FELLOWSHIPS IN ECOLOGY, EVO-LUTION, AND GENOMICS IN CHANGING ENVI-RONMENTS,

KANSAS STATE UNIVERSITY, MANHATTAN, KANSAS

The Division of Biology at Kansas State University has been awarded funding from the US Department of Education GAANN program to support up to seven Graduate Fellows for PhD research in the areas of Ecology, Evolution, and Genomics (EEG). The Graduate Assistance in Areas of National Need (GAANN) program provides fellowships to assist graduate students with excellent academic records who can demonstrate financial need. EEG GAANN Fellowships include tuition and a stipend of up to \$30,000 per year (based on financial need).

The interdisciplinary GAANN program in Biology at Kansas State University will address the critical need to train biologists to be effective teachers and skilled researchers in diverse professional and cultural contexts. One outcome of the GAANN program will be to train graduate students who are capable of addressing important conceptual and practical issues in interdisciplinary research in the biological sciences.

The application deadline is December 15, 2009, for admission in Fall 2010. Applicants must be citizens or permanent residents of the United States or its territories. Individuals from groups underrepresented in science are particularly encouraged to apply! For application instructions and additional information, visit: www.k-state.edu/eeg.

The Ecology, Evolution, and Genomics GAANN draws on the strengths of our Ecological Genomics Institute (http://ecogen.k-state.edu < http://ecogen.kstate.edu/ > ), expertise in Grassland Ecology, and Konza Prairie Long Term Ecological Research (LTER) program (http://kpbs.konza.k-state.edu < http://kpbs.konza.k-state.edu/ > ). GAANN EEG Faculty Research Interests:

+Molecular and Physiological Basis for Organismal Adaptation

-Loretta < http://www.k-state.edu/johnsonlab/ > Johnson - Ecotypic differentiation, genetic variation in the prairie grass Andropogon

-Ted Morgan < http://www.k-state.edu/morganlab/-Morganlab/lab.html > - Drosophila quantitative genomics and thermal tolerance, statistical analyses

-Jesse < http://www.k-state.edu/ecophyslab/ > Nippert - Physiological ecology and adaptation in grasses

+Genetic Architecture of Speciation

-Susan Brown < http://www.k-state.edu/biology/faculty\_pages/brown.html > - Evolution of gene networks regulating insect development, Bioinformatics

-Carolyn < http://www.k-state.edu/fergusonlab/ > Ferguson - Evolutionary genetics, speciation and hybridization in Phlox

-Mark Ungerer < http://www.k-state.edu/-

ungererlab/UngererWeb/Home.html> - Transposons and Speciation in Sunflowers

+Population Structure of Grassland Species and Conservation Genetics

-Brett < http://www.k-state.edu/bsanderc/ > Sandercock - Demography of terrestrial vertebrates, behavioral ecology of social systems

-Samantha < http://www.k-state.edu/wiselylab/-MoLab.html > Wisely - Population genomics responses to land use and cover changes, conservation genetics

-Craig < http://www.k-state.edu/fisheries/ > Paukert- Dynamics of riverine fish populations

+Metagenomics and the Role of Species Interactions in Community Ecology

-David < http://www.k-state.edu/biology/faculty\_pages/hartnett.html > Hartnett - Role of mycorhizzae in community interactions, bud dormancy -Anthony < http://www.k-state.edu/grassland/ > Joern - Arthropod food web interactions and community dynamics

-Ari Jumpponen < http://www.k-state.edu/fungi/-> - Host-fungus interaction genomics and microbial metagenomics

-Michael < http://www.k-state.edu/hermanlab/ > Herman - Nematode community ecological genomics and environmental change

+Linking Terrestrial and Aquatic Systems in Ecosystem Ecology

-John < http://www-personal.ksu.edu/~jblair/ > Blair - Ecosystem nutrient dynamics



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

## LouisianaStateU EvolutionaryEcologicalGenomics

Louisiana State U. Evolutionary Ecological Genomics

Ph.D. student applications are being accepted in the lab of Dr. Andrew Whitehead at Louisiana State University, in Ecological and Evolutionary Genomics, starting August 2010. Research in the Whitehead lab seeks to understand how genomes integrate cues from, respond to, and are shaped by the external environment. We examine genomic responses to stress that occur over physiological timescales (acclimation responses) and over evolutionary timescales (adaptive responses). Many complementary approaches are integrated into our program, including genome expression profiling using microarrays, population genetics and phylogenetics, and physiology, to study how individuals and species respond to and adapt to environmental stress. Stressors of interest include those that are natural (temperature, salinity) or of human origin (pollutants).

Visit the Whitehead lab website at http:// /www.biology.lsu.edu/webfac/awhitehead/frontpage%20template.htm < http://www.biology.lsu.edu/webfac/awhitehead/frontpage%20template.htm >

Highly motivated students with strong training in molecular biology, genetics, and evolution will be considered. Computational skills and prior research experience is desirable. For inquiries, send a statement of your research interests and career goals, and your CV, to Andrew Whitehead at andreww@lsu.edu <mailto:andreww@lsu.edu>

Andrew Whitehead Department of Biological Sciences Louisiana State University Baton Rouge, LA, 70803 andreww@lsu.edu <mailto:andreww@lsu.edu>

Andrew Whitehead, Asst. Professor Dept. of Biological Sciences, LSU office: 225-578-8210, lab: 225-578-2688, fax: 225-578-2597 NEW lab webpage: http://www.biology.lsu.edu/webfac/awhitehead/frontpage%20template.htm

Andrew Whitehead <andreww@lsu.edu>

#### ManchesterU FrogEvolution

Funded PhD Studentship starting September 2010 Environmental impacts on model and threatened frogs supervisor Dr Richard Preziosi A PhD position is available to examine the effects of environmental factors, including climate change effects, on development and fitness of model amphibians and ex situ populations of endangered and threatened tropical frogs. A major goal of this research is to determine the optimum captive management conditions. The majority of the project work will take place in the UK but field-

work in the tropics may be required. There is potential for collaborative work with applied conservation agencies. Further Information This studentship is open to EU residents and citizens. Applicants should have an excellent undergraduate record and some research experience. Previous experience working with frogs is desirable but not required. Further information can be obtained by contacting Dr Preziosi: Richard.Preziosi@manchester.ac.uk How to Apply Applications must be submitted online and accompanied by a number of supporting documents by 7 December 2009: http://www.ls.manchester.ac.uk/postgraduate/ukoreu/research/apply/ AND send an email to openday.lifesciences@manchester.ac.uk expressing your interest in attending the external admissions day on 7 January 2010.

preziosi@manchester.ac.uk preziosi@manchester.ac.uk

#### MaxPlanckInst EvolutionaryDynamics

PhD Student Position - Spatial Evolution in vitro and in silico

A 3-year PhD student position is available in the newly formed lab of Dr. Oskar Hallatschek at the Max-Planck-Institute for Dynamics and Self-Organization in Göttingen. The student will join a young and interactive research group in evolutionary dynamics and biophysics, including theoreticians and experimentalists. We cultivate an international atmosphere and the everyday working language is English. The Max-Planck-Institute for Dynamics and Self-Organization is located close to the center of the medieval town of Göttingen. More information about the group is available on the web at: http://www.evo.ds.mpg.de Although spatial degrees of freedom are an essential feature of most natural populations, they have been neglected in most experimental studies on microbial evolution. Yet, our preliminary results indicate that spatially extended populations have a drastically different mode and speed of adaptation. To investigate these dynamics in detail, the P.h.D. student will set up a long-term evolution experiment in the lab (using microbial populations) as well as on the computer. The goal is to work out the differences in the evolutionary dynamics of well-mixed populations and spatially extended populations. The experimental results will be related to an existing longterm experiment on well- mixed population that has

been run by the group of Prof. Richard Lenski (Michigan State University) for 40000 generations. This is possible, in particular, due to utilizing the same ancestral strains of E. coli. The project will pay attention to spatial aspects of evolution, epistatic selection and the previously unseen types and amounts of data of the coming years. Prior experience in population genetics modeling, molecular evolution, microbiology or comparative genomics is helpful.

The appointment will be on a temporary basis for a maximum of 4 years. The gross salary starts at approximately 1400,- per month depending on age and experience (TV $\ddot{o}$ D 13/2, Stufe 1). The student is encouraged to enroll in the Göttingen Graduate School for Neurosciences and Molecular Biosciences (GGNB, http:/-/www.ggnb.uni-goettingen.de/ ). Applicants should have a master's degree or equivalent in biology, math, physics, or related fields. If you hold an excellent BSc (1st class honors) please contact us about possible accession. German is not required but international students will be offered opportunities to take German courses. Interested candidates should send a cover letter summarizing their research background and interest in the position, CV, and contact information of two potential referees as a single PDF file to: oskar.hallatschek.applications@gmail.com

Applications will be reviewed beginning December 1, 2009. Interviews will be held in January. Starting date is January 1 2010 or later. If you have any specific questions (e.g. details of the project), feel free to email me.

The Max-Planck-Institute for Dynamics and Self-Organization is an Equal Opportunity/Affirmative Action Employer and has an affirmative action policy for the disabled.

oskar.hallatschek.applications@googlemail.com

the University of Konstanz. Outstanding students of all nationalities with a deep commitment to basic research in organismal biology are invited to apply.

More than 25 internationally recognized groups actively participate in the PhD program and offer challenging, cutting-edge PhD thesis projects in the fields of Animal Behavior, Ecology, Evolution, and Physiology.

All students accepted to the program will be supported by fellowships. The program offers dedicated teaching programs, high quality research experience, and outstanding research facilities in an inspiring research and living environment. All courses are taught in English. Each PhD candidate receives individual supervision and mentoring and is guided in his/her research work by a thesis advisory committee.

Deadline for the application is January 15, 2010. Interviews with the applicants are scheduled in Seewiesen and Konstanz for mid February. Candidates accepted into the program may start as early as April 2010.

The Max Planck Society and the University of Konstanz are equal opportunity employers. Applications from women and historically under-represented groups are particularly welcome. For details regarding the application and admission procedures, the doctoral program, the research groups and their projects, please refer to www.uni-konstanz.de/organismal-biology . Qualification:

Applicants should hold an MSc or equivalent degree in biology or a related discipline at the point of enrollment.

Queries should be mailed to the program coordinator Dr. Daniel Piechowski: dpiechowski@orn.mpg.de

Application:

For the application process visit www.unikonstanz.de/organismal-biology

dpiechowski@orn.mpg.de dpiechowski@orn.mpg.de

#### MaxPlanck OrganismalBiology

#### PhD POSITIONS AVAILABLE AT THE INTERNA-TIONAL MAX-PLANCK RESEARCH SCHOOL FOR ORGANISMAL BIOLOGY

The International Max Planck Research School (IM-PRS) for Organismal Biology offers several PhD student positions. The IMPRS is based in southern Germany and jointly organized by The Max Planck Institute for Ornithology in Seewiesen and Radolfzell and

#### McGillU PlantReproduction

M.Sc./Ph. D Student Research Position in Pollination Ecology and Plant Reproduction

We are seeking motivated and independent students to become part of an interdisciplinary team of federally funded researchers studying the consequences of pollinator decline in North America. Our central

#### December 1, 2009 EvolDir

project concerns the pollination and reproductive biology of the plant genus Vaccinium (blueberries). Investigations include research and training in community ecology, population biology, and molecular ecology and involve a combination of field and laboratory approaches. Supervision could take place at one or more of the following Canadian universities (McGill University, University of New Brunswick, University of Ottawa). For further information please check our websites: Dr. Linley Jesson: http:/-/v8nu74s71s31g374r7ssn017uloss3c1vr3s.unbf.ca/-

jesson/; Dr. Risa Sargent: http://www.science.uottawa.ca/~rsargent/; Dr. Dan Schoen: http://biology.mcgill.ca/faculty/schoen/ and/or contact us by e-mail at: jesson@unb.ca rsargent@uottawa.ca daniel.schoen@mcgill.ca

daniel.schoen@mcgill.ca daniel.schoen@mcgill.ca

## MichiganStateU FishPopulationGenetics

A PhD Graduate Research Assistantship is available through the Quantitative Fisheries Center (QFC) and Molecular Ecology Laboratory in the Department of Fisheries and Wildlife, Michigan State University. The successful candidate will conduct research developing new methods for identifying stock and cohort contributions to admixed fisheries. Student will work at the intersection between population genetics, stock assessment, and statistical modeling, and will have the opportunity to receive advanced training in each area. Student will also interact extensively with fishery management collaborators on this project and with the QFC. Qualifications include an M.S. in fisheries or related quantitative science, GPA of 3.0 or greater, and competitive GRE scores. Aptitude or interest in modeling of population dynamics, genetics, or application of statistics to natural resource issues. Experience in computer programming (R or AD Model Builder) desirable but not required. The annual stipend will be \$18,000 and will include waiver of tuition and related fees. Please submit CV, unofficial transcripts and GRE scores, and letter of application to Drs. Jim Bence (bence@msu.edu), Travis Brenden (brenden@msu.edu), or Kim Scribner (scribne3@msu.edu). Applications will be accepted until the position is filled.

Kim Scribner <scribne3@msu.edu>

## MiddleTennesseeStateU MolecularSystematics

Funding (tuition and \$18K stipend for up to five years) and significant funds to support student research are available for multiple Ph.D. students interested in molecular systematics, molecular ecology, population genetics and related fields from a new program in Molecular Biosciences at Middle Tennessee State University. See http://www.mtsu.edu/graduate/mbsphd/-index.shtml for details and contact information, and http://www.mtsu.edu/biology/ faculty/index.shtml for links to participating faculty.

Thanks!

Andy Brower

Professor Andrew Brower Department of Biology Middle Tennessee State University Murfreesboro, TN 37132 USA

(615) 898-2064

abrower@mtsu.edu

Andrew Brower <a brower@mtsu.edu>

#### NewZealand 2 MicrobialEvolution

PhD Studentships (x2) - Microbial Genomics and Evolution

The Rumen Microbial Genomics group in the Food, Metabolism & Microbiology Section (FMM) is looking for two PhD students in Microbial Evolutionary Genomics to take part in a Marsden-funded proposal investigating the effects of air on evolutionary processes. The students will be mentored by Dr. Christina Moon and Dr. Sinead Leahy at AgResearch Grasslands in Palmerston North, New Zealand, with academic supervision from Prof. Paul Rainey at the New Zealand Institute of Advanced Study, Massey University, Albany and collaboration with Dr. Rees Kassen at the University of Ottawa, Ottawa, Canada.

Mutations provide an important source of population variation on which natural selection acts to enable organisms to adapt to new environments. The effects of aerobic (oxygen-containing) and anaerobic (oxygenfree) environments on mutation types, and the rates that mutations accumulate, are not well understood. We plan to conduct a detailed investigation into how aerobic and anaerobic environments affect the fundamental processes of evolution (mutation and adaptation) by examining the evolution of a model bacterium in these environments, and assessing genetic changes at the whole genome level to understand the biological mechanisms that contribute to genetic diversity and evolution.

The projects will involve the regular maintenance and analysis of evolving lineages of bacteria, and next generation sequencing technologies coupled with bioinformatic analyses to examine genomic and transcriptomic changes. The persons best suited to these projects will therefore have strong academic backgrounds in areas such as bioinformatics, ecology, evolution, population genetics, genomics, microbiology and molecular biology. Although the two PhD projects are closely related, ideally the two successful candidates will have particular strengths in:

1: Molecular microbiology, genomics and bioinformatics, and

2: Ecology, bioinformatics where some basic computer programming skills will provide an advantage.

FMM has a proud history of completing PhDs. We offer a stimulating research environment where the focus is very much on people, science excellence and keeping it 'fun'. Enquires are welcome from individuals whose honours or masters degrees qualify them for admission into PhD study.

These positions include a PhD stipend of up to NZ\$27,000 (tax free) per year for three years, plus tuition fees, research expenses and opportunities to attend conferences.

PLEASE APPLY online via www.agresearch.co.nz selecting vacancy AGR1016. Closing date for applications is 30 November 2009.

#### http://agresearch.co.nz/careers/-

vacancydetail.aspx?id=376327 If you have any questions regarding this position please email Catherine Cameron: catherine.cameron@agresearch.co.nz

Christina Moon Senior Research Scientist Food, Metabolism & Microbiology Section T +64 6 351 8069 E christina.moon@agresearch.co.nz AgResearch Limited Grasslands Research Centre Tennent Drive, Private Bag 11008, Palmerston North, New Zealand T +64 6 356 8019 F +64 6 351 8003 www.agresearch.co.nz Farming Food and Health. First Te Ahuwhenua Te Kai me te Whai Ora. Tuatahi

"Moon, Christina" < Christina.Moon@agresearch.co.nz>

## NewZealand Marine PopulationGenetics

PhD Position in Coastal Marine Connectivity

Available Immediately

A fully-funded PhD position is available immediately within the School of Biological Sciences at Victoria University of Wellington (New Zealand) ' refer to www.vuw.ac.nz/sbs and www.vuw.ac.nz/cmeer for more information.

This position will focus on genetic aspects of the connectivity of New Zealand coastal taxa. The student will develop microsatellite markers to be applied to four different taxa to determine geographic patterns of genetic variation, to quantify gene flow among populations, and to reveal common and unique patterns of connectivity around the NZ coastline, and the location(s) of common barriers to dispersal.

Preference will be given to applications with demonstrated skills and experience in molecular research, including the development and application of genetic markers, in particular microsatellites. Because this project involves a substantial component of fieldwork to collect samples and to inspect sites within New Zealand, the successful applicant must be fit, healthy and prepared to work for several weeks at a time away from home.

This position is open to New Zealand and all international students. The stipend covers living expenses (NZ \$21,000 pa) and fees (NZ \$5,000 pa). Note that for students whose first language is not English, a test score of 6.5 or higher will be required in the IELTS test.

Further information may be obtained from Dr James Bell ' james.bell@vuw.ac.nz <james.bell@vuw.ac.nz> Dr Jonathan Gardner ' jonathan.gardner@vuw.ac.nz <jonathan.gardner@vuw.ac.nz> Dr Peter Ritchie ' peter.ritchie@vuw.ac.nz <peter.ritchie@vuw.ac.nz> Dr Joe Zuccarello ' joe.zuccarello@vuw.ac.nz <joe.zuccarello@vuw.ac.nz>

Further details and the application form can be found at - http://www.fis.org.nz/BreakOut/vuw/-schols.phtml?detail+500369 < http://www.fis.org.nz/-

BreakOut/vuw/schols.phtml?detail+500369 > Peter Ritchie <Peter.Ritchie@vuw.ac.nz>

#### NewZealand MothSexualSelection

PhD Scholarship available to investigate sexual conflict in the New Zealand moth genus Izatha

We are seeking a motivated and enthusiastic candidate to fill a fully funded PhD position in the School of Biological Sciences at the University of Auckland, New Zealand. The project will combine experimental and comparative approaches to assess the role of sexual conflict in driving the evolution of complex genitalia in the moth genus: Izatha. This genus is endemic to New Zealand and possesses extraordinarily complex and diverse male genitalia. Most intriguingly, males of some species possess detachable spines (cornuti), which are left embedded in the female reproductive tract after mating. The successful candidate should have research experience, a strong academic record and a keen interest in behavioural ecology, evolutionary biology and/or entomology. They should also be meticulous, with an attention to detail and an ability to work at a fine scale. Experience, or a willingness to learn molecular phylogenetic skills and imaging techniques such as electron microscopy and x-ray tomography, will be an advantage, and applicants will be expected to demonstrate evidence of proficiency in English (for those applicants whose first language is not English). The successful candidate will be under the supervision of Dr Greg Holwell (The University of Auckland), Dr Thomas Buckley (Landcare Research) and Dr Robert Hoare (Landcare Research) and will have access to a range of world-class facilities at both the University of Auckland and Landcare Research. This position is funded through the Marsden Fund of the Royal Society of New Zealand, and the successful applicant is expected to begin in early 2010.

Interested candidates should contact Dr Greg Holwell (g.holwell@auckland.ac.nz) to express their interest and provide some details as to their suitability.

Dr Greg Holwell School of Biological Sciences University of Auckland Private Bag 92019 Auckland 1142 New Zealand Phone: +64 (0)9 373-7599 extn 83652 http://www.sbs.auckland.ac.nz/uoa/science/about/departments/sbs/research/ecolevol/dr-gregholwell/dr-greg-holwell\_home.cfm Gregory Holwell <g.holwell@auckland.ac.nz>

#### NorthernArizonaU EvolutionaryBiol

\*Northern Arizona University IGERT Program in Integrative Bioscience: Genes to Environment \* Northern Arizona Univ. IGERT PhD positions: Genes to Environment

NAU invites applications for up to 4 PhD student traineeships for students admitted for the 2010/11 academic year. The purpose of this program is to provide students with instruction and research training focused on linkages between molecular genetics and ecosystem phenomena, with emphasis on multi-scale modeling approaches. Applicants will work with a mentor from the Biology or Forestry PhD programs at NAU. This program is funded by the National Science Foundation.

Program graduates will have the skills to address fundamental and applied questions of genetic influences on ecosystem function and response to environmental change. Unique aspects of this program include: 1) multidisciplinary research with a special emphasis on working across scales, 2) inclusion of molecular methodology and applied statistics coursework in all programs of study, 3) seminar courses covering scientific ethics, statistics and modeling, and student research, featuring guest speakers from integrative disciplines, 4) unique internships with community colleges, federal agencies, and Native American high schools to broaden the graduate experience and enhance connections between the research and the broader community. The NAU Integrative Bioscience PhD program will prepare innovative and creative scientists to become leaders in research, science outreach and communication, and environmental problem solving.

Traineeship packages will include \$30,000/year stipend support for two years, with continued support as teaching or research assistants at more traditional stipend levels. Applicants must concurrently apply to doctoral programs in the Department of Biological Sciences http://www6.nau.edu/biology/ or the School of Forestry http://www.for.nau.edu/cms/ at Northern Arizona University. Application deadlines for the 2010/11 academic year will be February 1, 2010. Applications will consist of 1) standard applications required for Biology or Forestry graduate programs (including three letters of reference) and 2) a 2 page essay on how this program would address your research, educational, and career goals. Please go to http://www.mpcer.nau.edu/igert/ or contact us by email or phone for more information: Dr. Catherine Gehring: Catherine.Gehring@nau.edu, (928)523-9158 or Dr. Amy Whipple: Amy.Whipple@nau.edu, (928)523-8727

Amy.Whipple@nau.edu Amy.Whipple@nau.edu

#### NorthwesternU PlantConservation

#### GRADUATE PROGRAM IN PLANT CONSERVA-TION AND BIOLOGY NORTHWESTERN UNIVER-SITY AND THE CHICAGO BOTANIC GARDEN

Northwestern University and the Chicago Botanic Garden jointly offer a graduate program in Plant Biology and Conservation and seek excellent applicants for both Master<sup>1</sup>s and Doctoral degrees. The program offers exciting opportunities for graduate student research in plant ecology, restoration ecology, soil ecology, climate change, invasive biology, paleobotany, mycology, population biology, demography, plant animal interactions, conservation genetics, evolution, and systematics. For more information about the program and faculty research interests visit our website: http://www.plantbiology.northwestern.edu For more information about the new Plant Conservation Science Center, please visit: http://www.chicagobotanic.org/research/labs.php?expanddiv=3Dplant\_conservation

Or contact the director of Graduate Program in Plant Biology and Conservation: Nyree Zerega (nzerega@chicagobotanic.org)

nzerega@chicagobotanic.org

## NorwegianUSciTech PopulationGenetics

A PhD position in population genetics is available at the Department of Biology, Norwegian University of Science and Technology (NTNU) in Trondheim.

The candidate will be working with population genetic questions in landrace crops, in particular barley (Hordeum vulgare). He or she will be studying the contribution of adaptive and non-adaptive processes to the genetic composition of 19th century crops, to understand the roles of introduction and trading routes and selection for desired traits prior to modern plant improvement. The project aims to answer questions regarding agricultural history, how modern plant improvement has affected crop species and the identification of selected alleles. The research project will be carried out in collaboration with the Swedish Museum of cultural history and will involve genetic characterisation of historic seed samples from the Museum's collections.

The position requires a Master of science (MSc/Cand scient) degree or similar within biology. Experience in molecular genetic laboratory techniques as well as a solid understanding of population and evolutionary genetics will be helpful to the successful candidate.

further For information contact Jenny Hagenblad (Jenny.Hagenblad@ebc.uu.se) or Matti Leino (matti.leino@nordiskamuseet.se) http://innsida.ntnu.no/ or visit: nettopp\_lesmer.php?kategori=nyheter&dokidK04fd78a25c41.31764142

Jenny Hagenblad, PhD Assistant Professor Uppsala University EBC, Plant Ecology Norbyv 18D SE-752 36 Uppsala Sweden

Tel: (+46)(0)18 471 2863 Email: Jenny.Hagenblad@ebc.uu.se

http://www.anst.uu.se/jenha377/Jenny/

jenny.hagenblad@ebc.uu.se jenny.hagenblad@ebc.uu.se

## OklahomaStateUniv milkweed phylogeny genomics

Mark Fishbein (Oklahoma State University, Department of Botany) seeks a graduate student (PhD or MS) to apply genomic approaches to the phylogeny of American milkweeds (Asclepias, Apocynaceae). The student will participate in an NSF-funded collaborative project with Dr. Aaron Liston and Dr. Richard Cronn at Oregon State University.

Milkweeds have served as a important model system for studies of the evolution of pollination systems and plant defenses against herbivory. Continued phylogenetic study is required to fully resolve species level relationships, to further test and expand upon theories of coevolution of plants, pollinators, and herbivores, and to develop milkweeds as a model system for the comparative study of genomes. Graduate research in the Fishbein lab may include working with the complete genome of Asclepias syriaca (common milkweed) and chloroplast genomes from ca. 150 species of Asclepias and relatives. Research activities can involve field work in the US, Mexico, and/or South America, next-generation DNA sequencing, and phylogenetic and phylogenomic anlalysis. Opportunities exist for PhD students to develop independent projects making use of the considerable data generated for this research.

Students will be supported by a combination of research and teaching assistantships. Information about the Botany department can be found at http://botany.okstate.edu and the Fishbein lab at http://fishbein.okstate.edu

To be eligible for stipend enhancements for Fall 2010 admission, applications must be submitted by Feb. 1, 2010; however, early inquiries are encouraged. Inquiries should be directed to mark.fishbein@okstate.edu

mark.fishbein@okstate.edu mark.fishbein@okstate.edu

#### StonyBrookU EvolutionaryBiology

# GRADUATE OPPORTUNITIES IN ECOLOGY AND EVOLUTIONARY BIOLOGY

The Graduate Program in Ecology and Evolution in the Department of Ecology and Evolution at Stony Brook University is recruiting doctoral and master's level graduate students for Fall 2010. The program trains students in Ecology, Evolution and Biometry. The following faculty are seeking graduate students:

H. Resit Akcakaya http://life.bio.sunysb.edu/ee/akcakayalab/ Stephen B. Baines Michael A. Bell http://life.bio.sunysb.edu/ee/belllab/ David 0. http://www.msrc.sunysb.edu/ Conover conover Liliana М. Dávalos http://life.bio.sunysb.edu/ee/davaloslab/Welcome.html Daneil Dykhuizen http://life.bio.sunysb.edu/dykhuizenlab/ Walter F. Eanes http://life.bio.sunysb.edu/ee/eaneslab/ John G. Fleagle http://www.anat.stonybrook.edu/people/facultypage/fleagle Lev Ginzburg (631) 632-8569 Jessica Gurevitch http://life.bio.sunysb.edu/-Levinton gurevitchlab/ Jeffrey http://life.bio.sunysb.edu/marinebio/levinton.main.html Steve Munch http://www.somas.stonybrook.edu/people/munch.html Dianna K Padilla http:/-/life.bio.sunysb.edu/ee/padillalab Joshua Rest http://life.bio.sunysb.edu/ee/restlab/ F. James Rohlf http://life.bio.sunysb.edu/morph John True http://life.bio.sunysb.edu/ee/truelab/True\_Lab.html John J. Wiens http://life.bio.sunysb.edu/ee/wienslab/homepage.html Pat C. Wright http://icte.bio.sunysb.edu For more information regarding the Graduate Program in Ecology and Evolution see http://life.bio.sunysb.edu/ee and http://life.bio.sunysb.edu/ee/programs.htm The deadline for receipt of all application materials is January 15, although earlier submission is encouraged to ensure full consideration for available fellowships. For additional assistance, e-mail our Graduate Program Coordinator, Iris Roth, iroth@notes.cc.sunysb.edu

Joshua Rest, Assistant Professor Department of Ecology and Evolution 676 Life Sciences Building Stony Brook University Stony Brook, NY 11794-5245

joshrest@gmail.com

#### TexasTechU EvolutionaryEcol

Graduate Student Positions Available - TTU

I am seeking motivated students to join my lab for either masters or doctoral work beginning in fall 2010 in the field of evolutionary ecology at Texas Tech University. Funding for 1-2 students will be provided either as teaching assistantships or fellowships, depending on student background and availability. Applicants should be independent, highly motivated, and some research and/or field experience would be a plus. Research in my lab generally addresses questions about behavioral ecology about signal function and evolution by performing experiments within a naturalistic context. Specific research topics have included a wide array of ecological and evolutionary questions. Such work includes studies on heterospecific eavesdropping, the evolutionary hypotheses for the role of the vocal sac in anurans, female mate choice based on genetic similarities, genetic diversity and morphology in island populations, and mating preferences at different scales of divergence. For further information on the Bernal lab see: http://www.webpages.ttu.edu/xbernal/ If you are interested, please send me an email including 1) a statement of research interests, 2) a brief overview of your previous academic and research experiences, and 3) how your interests might fit in with the lab. Also include a copy of your CV or resume, your GRE scores (if you have them), and an unofficial transcript. Funding may be available through research and/or teaching assistantships. In addition TTU offers fellowships for some of the most promising students.

Ximena E. Bernal, PhD

Assistant Professor Texas Tech University Department of Biological Science Box 43131 Lubbock, TX. 79409-3131

Office #411 Biological Science Building Office Phone: (806) 742-2710 ext 273

Personal Website: http://www.webpages.ttu.edu/xbernal/ http://www.biol.ttu.edu/faculty/xbernal/ "Bernal, Ximena" <ximena.bernal@ttu.edu>

#### **UBern ConservationBiol**

The Division of Conservation Biology at the Institute of Ecology and Evolution, University of Bern, Switzerland, offers:

1-2 PhD position(s) (3 years) for a conservation biologist/restoration ecologist

who will work in an applied research programme cofunded by the Swiss National Science Foundation, entitled: Grassland management: designing tomorrow's farmland for biodiversity

The successful candidate(s) will work either in Swiss lowland farmland (high intensity, but revitalized cultivated matrices) or in Alpine grassland (rapidly intensifying, but biodiversity rich meadowland). The goal of the project is to deliver evidence-based grassland management policies that can provide optimal conditions for wildlife in agro-ecosystems while maintaining acceptable levels of productivity. Natural experiments on the effects of innovative management practices on species diversity and abundance will be carried out in the field. For instance, it will be tested to which extent spatio-temporal habitat heterogeneity may be restored in farmland by applying new management options (~ adapted agri-environment schemes in the lowlands) compatible with modern modes of agricultural production, and what is the ideal level of management intensity for both yield and biodiversity-friendly grass production (subalpine meadowland).

Candidates must have a MSc/Diplom degree and a strong interest for agro-ecological issues. They must master modern analytical techniques and software. Knowledge of grassland indicator taxa would be advantageous. Good knowledge of spoken and written English is prerequisite, while knowledge of German and/or French would be a plus for communicating with local farmers. Start: January-February 2010. Salary according to SNSF conditions. The successful candidates are also expected to take part to teaching and minor administrative duties.

Send a letter of motivation, your CV including a list of publications, as well as the names, institutional addresses, emails and phone numbers of two references to susanne.maurer@iee.unibe.ch.

Application deadline is December 5th 2009. Interviews of selected candidates will take place in Bern during week 51 (14-18 December 2009).

Prof. Raphaël Arlettaz, with Prof. Markus Fischer and Jean-Yves Humbert

4 November 2009

 $\label{eq:http://www.conservation.unibe.ch/Pages/Intro.html jean-yves.humbert@art.admin.ch$ 

### **UBielefeld EvolutionaryBiol**

Ph.D. position in Evolutionary Biology, University Bielefeld, Germany

\*Phenotypic plasticity of behaviour and metabolic rate in the lesser wax moth\*

Application deadline: 18. November 2009

A PhD position (E13 TVL 65%) is available within the Evolutionary Biology research group of Prof. Klaus Reinhold at University Bielefeld. The project \* "Effects of larval density and larval food on adult behaviour and physiology in the lesser wax moth /Achroia grisella/: adaptive anticipation of future environments"\* belongs to a group of seven related projects within the DFG funded research group '/Reduction of phenotypic plasticity in behaviour by early experience: functional consequences of an adaptive mechanism?/' The main aim of our project is to examine the adaptive phenotypic plasticity of behaviour as well as the metabolic rate in dependence of experimental manipulation of larval food and larval competition. Within the here described project we will concentrate on the plasticity of acoustic and chemical communication. We will use the lesser wax moth, Achroia grisella, as a model system, as these insects have short generation time, can easily be bred in the laboratory and show behaviour that can predictably be manipulated. The successful candidate will mainly work on the analysis of behavioural syndromes and measurements of metabolic rate. We expect synergies from collaborating with the other related projects and the successful candidates should benefit from the multi-disciplinary approaches in the research group.

The successful candidate should have a strong background in evolutionary biology, behavioural ecology and statistical analyses. Further experience in experimental work with insects, acoustic communication or behavioural phenotypes will be beneficial. We expect candidates to have good communication skills and the ability to work independently as well as in a team.

Applications in English or German should be sent by e-mail and should include a cover letter, C.V., a statement of research interests, a list of publications, and names and e-mail addresses of two references, preferably within a single PDF. We especially encourage women to apply. Interviews are planned to be held in December.

The closing date for applications will be \*18. November 2009<sup>\*</sup>.

For further inquiry and for sending your applications please use the following address: Klaus.Reinhold@unibielefeld.de

Prof. Dr. Klaus Reinhold, University Bielefeld

Klaus Reinhold <klaus.reinhold@uni-bielefeld.de>

#### **UBritishColumbia EvolGenomics**

A Graduate Assistantship (M.Sc. or Ph.D.) is available in the lab of Dr. Keith Adams at the University of British Columbia in genome evolution and the evolution of gene expression starting in September 2010. My lab's research combines evolutionary biology with molecular genetics and genomics to study how gene expression, regulation, structures, and sequences evolve. We use lab experiments and computational analyses of gene sequence and expression data to test hypotheses and answer questions. See my web page at http:/-/www.botany.ubc.ca/people/adams.htm for a description of current research. I am looking for a highly motivated graduate student to help develop and work on a project about the evolution of duplicate gene expression and/or alternative splicing in plants. Candidates should have a strong undergraduate background in biology, with course work in molecular genetics and evolutionary biology. Prior research experience is desirable. For more information and inquiries about the research area please contact Keith Adams at keitha@interchange.ubc.ca

Keith Adams Botany Department and Centre for Plant Research University of British Columbia Vancouver, Canada

keitha@interchange.ubc.ca keitha@interchange.ubc.ca

#### UBritishColumbia spiderPhylogeny ecomorphology

Wayne Maddison at the University of British Columbia (Canada) is seeking a doctoral student to study the ecological diversification of salticid spiders at an intercontinental scale. Major themes are or could be phylogeny, ecomorphology, biogeography, community assembly, adaptive radiation.

There are about 5000 described, and many more undescribed, species of salticid spiders. Recent phylogenetic work has shown that major salticid clades are largely endemic to a single continental region. Each of these separate radiations contains hundreds of species spanning a broad array of body forms and habitat preference. To be studied are whether these radiations show convergence in morphologies as they relate to ecology. The system then would be a large-scale analogue to well known replicate radiations such as the Caribbean Anolis lizards and Hawaiian Tetragnatha spiders.

The research will involve tropical field work, molecular phylogenetics, and morphometrics.

Prospective students are also invited to consider other projects in the Maddison lab, which are: (1) systematics and taxonomy of salticid spiders; (2) phylogeny, hybridization, and evolution of courtship behaviour and chromosomes in Habronattus jumping spiders; (3) analytical methods for inferring evolutionary process from phylogeny.

For more information about the Maddison lab, go to http://salticidae.org/wpm/lab.html. The Maddison lab is in UBC's Biodiversity Research Centre, a diverse group of leading evolutionary biologists and ecologists (http://biodiversity.ubc.ca). For information on applying for graduate studies to the Zoology department, go to http://www.zoology.ubc.ca/graduatestudies/how-to-apply. Students working on theoretical projects could also apply through Botany (http://- www.botany.ubc.ca/gradstudies/apply.html).

Interested students with a Bachelors or Masters degree are invited to respond to wmaddisn@interchange.ubc.ca with information about relevant experience, skills and interests.

Wayne Maddison Professor and Canada Research Chair Depts. of Zoology and Botany and Biodiversity Research Centre & Director Beaty Biodiversity Museum 6270 University Boulevard University of British Columbia Vancouver, BC V6T 1Z4 Canada

email: wmaddisn@interchange.ubc.ca FAX: +1 604 822-2416

Mesquite: http://mesquiteproject.org MacClade: http://macclade.org Salticidae: http://salticidae.org Tree of Life: http://tolweb.org Beaty Biodiversity Museum: http://beatymuseum.ubc.ca Home page: http://salticidae.org/wpm/home.html wmaddisn@interchange.ubc.ca wmaddisn@interchange.ubc.ca

## UBritishColumbia spiderPhylogeny hybridiz sexSel

Wayne Maddison at the University of British Columbia (Canada) is seeking a graduate student (preferably PhD, but possibly Masters) to study diversification as it relates to hybridization and sexual selection in a group of North American jumping spiders (Salticidae).

The genus Habronattus has about 100 described species, many with courtship ornaments and behaviours rivalling those of birds (http://www.youtube.com/-watch?v=QuWMmAqnpCI). Published and unpublished molecular phylogenetic analyses hint that hybridization between distinct species groups may have played a role in their diversification. By extending our molecular phylogenetic data to more genes and specimens we will study the extent of hybridization among closely and more distantly related species, and whether hybridization is concentrated in groups with simpler or more complex courtship. The latter is a possible outcome if there is antagonistic coevolution between male and female sexual traits.

Optional extensions of the project could involve a more direct focus on behavioural evolution or on chromosome evolution. The group shows repeated evolutions of a neo-XXXY sex chromosome system. This work will take advantage of existing collaborations with other researchers working on Habronattus.

The research will involve field work (in the southern United States and possibly Mexico), molecular phylogenetics and phylogeography, and possibly behavioural or chromosomal analysis.

Prospective students are also invited to consider other projects in the Maddison lab, which are: (1) systematics and taxonomy of salticid spiders; (2) phylogeny, biogeography and ecological diversification of salticid spiders at an intercontinental scale; (3) analytical methods for inferring evolutionary process from phylogeny.

For more information about the Maddison lab, go to http://salticidae.org/wpm/lab.html. The Maddison lab is in UBC's Biodiversity Research Centre, a diverse group of leading evolutionary biologists and ecologists (http://biodiversity.ubc.ca). For information on applying for graduate studies to the Zoology department, go to http://www.zoology.ubc.ca/graduatestudies/how-to-apply. Students working on theoretical projects could also apply through Botany (http://www.botany.ubc.ca/gradstudies/apply.html).

Interested students with a Bachelors or Masters degree are invited to respond to wmaddisn@interchange.ubc.ca with information about relevant experience, skills and interests.

Wayne Maddison Professor and Canada Research Chair Depts. of Zoology and Botany and Biodiversity Research Centre & Director Beaty Biodiversity Museum 6270 University Boulevard University of British Columbia Vancouver, BC V6T 1Z4 Canada

email: wmaddisn@interchange.ubc.ca FAX: +1 604 822-2416

Mesquite: http://mesquiteproject.org MacClade: http://macclade.org Salticidae: http://salticidae.org Tree of Life: http://tolweb.org Beaty Biodiversity Museum: http://beatymuseum.ubc.ca Home page: http://salticidae.org/wpm/home.html wmaddisn@interchange.ubc.ca wmaddisn@interchange.ubc.ca

**UBuffalo AngiospermGenomes** 

Graduate Research Assistantship - Basal Angiosperms

University at Buffalo

\*\*Note start date changed to Fall, 2010\*\*

Research Assistantship, \*pending funding\*, 2 years, to study genome evolution in basal angiosperms. Good molecular biology background required, and hands-on experience with advanced microscopy, FISH (Fluorescence In Situ Hybridization) or other in situ methods preferred. Interested persons should contact Prof. Victor A. Albert (vaalbertbuffalo.edu; http:/-/biology.buffalo.edu/Faculty/Albert/albert.html). Include CV and list of 3 references. Target start date is Fall semester, 2010, at the University at Buffalo. GREs (TOEFL, if necessary) and application will be required by January to be considered.

 Victor A. Albert Empire Innovation Professor of Biological Sciences University at Buffalo (SUNY) http:/-/biology.buffalo.edu/Faculty/Albert/albert.html

> UCaliforniaSanDiego EvolutionaryBiology

The Ecology, Behavior & Evolution (EBE) Section at UCSD seeks outstanding applicants to the PhD graduate program for the fall of 2010. EBE is one of four sections within the Division of Biological Sciences at UCSD which sits at the center of the large, vibrant, and varied biological research community in San Diego. This diverse group of researchers provides a stimulating intellectual environment for graduate training and research with a wide range of opportunities for interactions with local institutions such as Scripps Oceanographic Institute. Faculty within the EBE Section have focused interests in experimental and genetic evolution, community and ecosystems ecology, and insect ecology, behavior and evolution. The graduate program is committed to a supportive environment for research and learning and provides five years of funding for graduate student stipends and benefits.

More information and application instructions for the UCSD Division of Biological Sciences Graduate Program is available at http://biology.ucsd.edu/grad/overview.html EBE Faculty Research Interests:

Lin Chao, Professor of Biology Evolutionary genetics; theory and experimentation. Current interests: Evolution of senescence; antibiotic resistance; and cooperation. Elsa Cleland, Assistant Professor of Biology Plant community and ecosystem ecology, global environmental change, biogeochemistry, ecological restoration

David Holway, Associate Professor of Biology Ecological basis of invasive species. Argentine Ants, Fire Ants - California.

Joshua Kohn, Professor of Biology, Chair of the Section of Ecology, Behavior and Evolution Plant population biology; mating system evolution; ecological genetics.

Carolyn Kurle, Assistant Professor of Biology Changes in community structure, trophic interactions, and native species composition when ecosystems are modified via human perturbations that result in biodiversity loss, species invasion, habitat alteration, and changes in food availability.

Therese Markow, Professor of Biology, Amylin Chair in Life Sciences Education and Research Speciation and adaptation to novel environments; Mating system evolution; Drosophila evolutionary genetics.

James Nieh, Associate Professor of Biology Evolution of animal language: Functionally referential communication in highly social bees; sensory physiology and mechanisms of multi- modal communication; bioacoustics; neuroethology of insect learning.

Scott Rifkin, Assistant Professor of Biology Sources of phenotypic variation; gene expression evolution; evolutionary and developmental systems biology

Kaustuv Roy, Professor of Biology Physical and biotic controls on the distribution and diversity of species in benthic marine ecosystems.

Jonathan Shurin, Associate Professor of Biology Causes and consequences of variation in species diversity, flow of energy between producers and consumers, and impacts of predators on ecosystem functioning.

Christopher Wills, Professor Emeritus of Biology Molecular evolution; genetic variation at DNA level, the ecology and evolution of complex ecosystems.

David Woodruff, Professor of Biology Conservation and evolutionary biology; speciation; genetics of endangered species.

Elsa Cleland <ecleland@ucsd.edu>

UGeulph AtlanticSalmon GenomicSelection A Ph.D. position in Atlantic Salmon Ecological Genomics and Genomic selection is available beginning in January or May 2010 with funding for three years.

The project is led by Dr. Elizabeth Boulding (Integrative Biology, U. Guelph) with co-investigators Dr. Larry Schaeffer (Animal and Poultry Science, U. Guelph and 2009 recipient of the Hermann-von-Nathusius-Medaille) and Dr. Patricia Schulte (Zoology, U.B.C.). We are collaborating with Drs. Brian Glebe and Patrick O'Reilly and of the Department of Fisheries and Oceans, Canada (DFO), Dr. Keng Pee Ang and Jake Elliot of Cooke Aquaculture Canada, and Dr. Sigbj©rn Liens group from CIGENE at the Norwegian University of Life Sciences.

The Ph.D. project with Dr. Boulding involves looking for correlations between thousands of Single Nucleotide Polymorphisms (SNPS) and morphological, behavioural, life history, and physiological traits in Atlantic salmon, and determining the extent to which these correlations have an underlying genetic basis. These correlations are the basis of genomic selection which will be validated using historical DNA samples, and breeding records along with new statistical software that has been developed at the University of Guelph. We will use Fst outlier analysis to identify SNPs that show more differences in allele frequencies between the wild and aquacultural salmon populations than expected under neutral theory which may allow us to identify the genome regions that have responded to domestication selection when the Saint Johns aquacultural strain was founded. These SNP genetic markers may eventually enable the aquaculture industry to practice genomic selection for complex traits within the St. John's Aquaculture strain of Atlantic salmon that is authorized for use in New Brunswick.

Atlantic salmon from the inner Bay of Fundy (iBoF) are listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Researchers at DFO have used molecular markers to demonstrate that some smolts obtained from the Upper Salmon River in the iBoF are F1 hybrids between European aquaculture and North American fish. We will genotype families from backcrossed North American and European aquacultural strains that have been held in a common hatchery tanks at St. Andrews Biological Station. This will enable us to document statistical associations between SNPs in candidate genes and genetic differences in complex traits among these endangered salmon populations which, may assist in their conservation.

The Ph.D. position with Dr. Boulding requires a background in evolutionary/computational biology or population/quantitative/statistical genetics, and preferably at least one peer-reviewed paper in population or quantitative genetics, or genome biology or molecular animal breeding. The position would either suit molecular ecologists interested in ecological genomics or molecular animal breeders, or bioinformatics students with statistical or computational biology interests. However, experimentalists must demonstrate an aptitude for analytical methods (e.g., UNIX, Perl, R, QTL Express) given the massive phenotype/SNP genotype datasets that must be analyzed whereas bioinformatics students must demonstrate an aptitude for salmon biology.

Please apply for the Ph.D. position with Dr. Boulding (boulding@uoguelph.ca) by emailing her a short resume, an unofficial electronic transcript of all your university grades, and a statement that you are willing to travel from your home university in Guelph to New Brunswick or to Norway as needed for the proposed research. To be selected for a Ph.D. position you need to be eligible for admission to our graduate program. Dr. Boulding is in the Department of Integrative Biology at the University of Guelph: http://www.uoguelph.ca/ib/ . Check the appropriate website for Ph.D. admission requirements; note that you may have to write and receive a passing grade on the TOEFL test if English is not your first language.

 Elizabeth Grace Boulding Associate Professor and Academic Advisor MFWB University of Guelph, Ontario Canada Department of Integrative Biology 50 Stone Road East University of Guelph Guelph, Ontario N1G 2W1 Canada office phone: (519) 824-4120 x54961 fax: (519) 767-1656 Email: boulding@uoguelph.ca
WEbpage: http://www.uoguelph.ca/~bouldlab/ Elizabeth Boulding <boulding@uoguelph.ca>

## UGranada EvolutionaryBiol

The Evoflor Group at University of Granada is seeking highly motivated graduate students with interests in evolutionary biology, ecology and genetics. At the moment, there are the possibility of a position for two students at the Ph.D. Level granted by the Spanish Ministry of Science and Innovation (FPI and FPU programs).

To get an idea of our projects currently underway, please follow these links:

http://www.evoflor.org http://www.evoflor.org/strugen.html With our current scientific project (StruGen) we will carry out observational and experimental approaches to evaluate the relative importance of the spatial structure, the micro-environment and the genotype/phenotype in shaping the generalization degree of plants belonging to the same population. We will assess the structure and clustering pattern of the pollination and mating intraspecific networks emerging from those interactions and we will also analyse how individual differences in the degree of generalization affect plant fitnesses. We will extend the network analytical approach widely used in community ecology to understand the ecological and genetic factors driving generalization differences among individuals within populations and will analyse their evolutionary outcomes.

The University of Granada is located in Granada, Spain, close to the Sierra Nevada mountains and is known for its lively student environment. For information on the University of Granada please see http:/-/www.ugr.es/ Students interested in pursuing a Ph.D. in our group could contact Francisco Perfectti (fperfect@ugr.es) or José M. Gómez (jmgreyes@ugr.es) via email.

Francisco Perfectti fperfect@ugr.es Departamento de Genetica +34 958 243 262 Universidad de Granada fax +34 958 244 073 18071 Granada SPAIN

Work hard, live well, and keep in touch

Francisco Perfectti <fperfect@ugr.es>

## UHeidelberg PlantEvolution ChalconeSynthase

Evolution of the Chalcone synthase gene in cruciferous plants: Ortholoques, Paraloques and Pseudogenes - gene duplication, neofunctionalization and silencing.

Project leader: Koch, Marcus A.

Application deadline from/to: 11/24/2009 01/31/2010

Start of PhD project (mm/dd/yyyy)\*: 03/01/2010

Project description: The Brassicaceae are developing into the most important model group in plant science aside the grass family. This is not only because of the model organisms Arabidopsis thaliana and Brassica napus, but also the enormously increasing knowledge on all aspects of biology and evolution concerning this family The family is characterized by frequently occurring hybridization and poly-ploidization, which, as a consequence, is greatly affecting genome size and structure, but also any mode of speciation. Nonetheless, it is still unclear if the evolution of the Brassicaceae on the various taxonomic/temporal levels and of its evolutionary lineages is mostly or even best explained by multiple radiation events. A fact that can also account for the difficulties to resolve deep phylogenetic relationships within the family. In the overall project we are aiming to use the actually available knowledge and phylogenetic data and a phylogenetic backbone to address these principles questions of crucifer evolution by adding genome size and cytogenetic data across the whole family. In the proposed PhD project the chalcone synthase has been selected as candidate locus to reconstruct such a robust framework phylogeny with a nearly constant molecular clock. This will enable calibration of any evolutionary hypothesis. In order to obtain this evolutionary framework, chs genes have to be characterized in detail (copy number, orthologues, paralogues, pseudogenes) in a representative set of taxa across the whole Brassicaceae family. Subsequent functional and theoretical analysis will provide additional information on modes of molecular evolution creating chs diversity in the entire family.

References: KOCH M.A., AL.SHEHBAZ, I.A. (2009) Molecluar Systematics and Evolution of "wild" crucifers (Brassicaceae or Cruciferae). In: Biology and Breeding of Crucifers (ed. S. Gupta). Taylor and Francis Group. Pp. 1-22.

LYSAK M.A., KOCH M.A., LEITCH I.J., BEAULIEAU J.M., MEISTER A. (2009) The dynamic ups and downs of genome size evolution in Brassicaceae. Mol. Biol. Evol. 26 (1): 85-98.

KOCH M.A, DOBES C, KIEFER C, SHMICKL R, KLIMES L, LYSAK MA (2007) SuperNetwork identifies multiple events of plastid trnF (GAA) pseudogene evolution in the Brassicaceae. Mol. Biol. Evol. 24: 63-73.

KOCH, M.A, HAUBOLD, B., MITCHELL-OLDS, T. (2001): Molecular systematics of the cruciferae: Evidence from coding plastome matK and nuclear CHS sequences. Amer. J. Bot. 88 (2): 534-544.

KOCH, M.A, WEISSHAAR, B., KROYMANN, J., HAUBOLD, B., MITCHELL-OLDS, T. (2001): Comparative genomics and regulatory evolution: conservation and function of the Chs and Apetala3 promoters. Mol. Biol. Evol. 18 (10): 1882-1891.

Methods that will be used: Cloning of genomic DNA incl. promoter fragment, expression studies and RT- PCR, SNP- analysis (characterization of allelic diversity), flow cytometry and cytogenetics (estimation of DNA content and ploidylevels), additional focus on theoretical analysis in molecular evolution

Profile of candidate's qualification: Highly motivated candidates, preferentially with a background in plant systematics and evolution (theory and/or practice) and molecular biology are invited to apply.

Prof. Dr. Marcus A. Koch Heidelberg Institute of Plant Sciences Director Division Biodiversity and Plant Systematics Director Botanical Gardens and Herbarium Heidelberg (HEID) Dean (Studies) Faculty of Biological Sciences University of Heidelberg Im Neuenheimer Feld 345 D-69120 Heidelberg, Germany Tel.: +49 (0)6221 54 4655 Fax +49 (0)6221 54 5508 eMAIL mkoch@hip.uni-heidelberg.de WWW http://www.bot.uni-heidelberg.de/ "Prof. Dr. Marcus A. Koch" <mkoch@hip.uni-heidelberg.de>

### UHelsinki SticklebackParasites

populations. Funding is guaranteed for 3 years, by Maj and Tor Nessling Foundation, in the form of a personal grant of 1525euro/month. Funding for a 4th year might be possible. Starting date: The work can start immediately but the starting date is negotiable.

If interested, please submit your CV, contact details for three references, and a summary of research experience and interests to ulrika.candolin@helsinki.fi

The position will be open until filled.

Ulrika Candolin Div of Ecology and Evolutionary Biology Dept of Biological & Environmental Sciences PO Box 65 (Biocenter 3, Viikinkaari 1) FI-00014 University of Helsinki Finland

# PhD studentship in Evolutionary Ecology at University of Helsinki

#### EUTROPHICATION OF THE BALTIC SEA: EF-FECTS OF PARASITES ON THREESPINE STICK-LEBACK POPULATIONS

The environment of the Baltic Sea is currently changing due to eutrophication. Monitoring of threespine stickleback populations Gasterosteus aculeatus in the archipelago of Southern Finland has revealed that sticklebacks breeding in eutrophied coastal waters are less parasitized than sticklebacks breeding in clear waters, particularly when it comes to the dominating parasite Schistocephalus solidus. This could result from differences in exposure to parasites or differences in resistance to parasites. The objectives of the current project are to: a) determine the correlations between eutrophication and parasite infections in threespine stickleback populations in the Baltic Sea, and b) experimentally investigate the causes of the correlations for different parasites.

I invite highly motivated students with a good background in Evolutionary Ecology to apply for the position. A MSc or equivalent education level is required. Earlier experience with fish or parasites is not required. The student will collaborate with other PhD students investigating the effects of eutrophication on stickleback

## UIdaho ConservationBiology

Evaluating resilience of biological and social systems in changing landscapes: A doctoral research and education program in Idaho and Costa Rica

Twenty-four Ph.D. assistantships are available to join interdisciplinary teams working on aspects of conservation, sustainable production, sustainable livelihoods, and resilience of managed ecosystems. With funding from the National Science Foundation<sup>1</sup>s Integrative Graduate Education and Research Traineeship program (IGERT), students will pursue disciplinary research and work collaboratively to address crossdisciplinary issues within the framework of this collaborative effort between the University of Idaho and the Tropical Agricultural Research and Higher Education Center (CATIE), in Costa Rica. Students will interact with members of other IGERT-sponsored student/faculty teams pursuing research in diverse ecosystems in which sustainability and conservation in the face of changing conditions and pressures is desired.

Doctoral students will conduct research on the social, political, economic, biological, and physical drivers of change that affect resilience of ecological and social systems, and how to manage the environmental and social challenges arising from such change.

Assistantships are now available in the following subjects: Entomology and Landscape Ecology, Entomology and Landscape Genetics Virus-Vector Ecology and Virology, Restoration Plant Ecology Soil Biogeochemistry, Soil Science Rural and Community Economics, Natural Resource Economics Sustainable Rural Livelihoods, Social Perceptions Ecology and Conservation Genetics, Reproductive Ecology of Forest Trees Forest Ecology, Plant-Soil-Disturbance Interactions Disturbance and Climate Change, Ecosystem Response to Disturbance Hydrology and Watershed Management, Ecohydrology

This unique graduate education program will provide students:

Team-based interdisciplinary education International perspective Broad geographic and ecological exposure Participation in integrated interdisciplinary teams Cross-cultural experience

Requirements: Applicants must be American citizens or permanent residents of the USA, have a researchbased M.S. or M.A. degree in a relevant discipline, and demonstrate interest and/or experience in team-based projects. Students will join the program to begin course work in late July 2010.

Review of applications will begin Dec 1st 2009 and end Jan 4th 2010. Earlier applications are highly encouraged. Interviews of top applicants will be conducted at the University of Idaho campus in early March 2010.

See following web page for information on interdisciplinary teams and application details: http://www.students.uidaho.edu/gradadmissions/IGERT For additional information contact: Nilsa Bosque-Perez: nbosque@uidaho.edu

– Lisette Waits, PHD Professor Fish and Wildlife Resources Center for Research on Invasive Species and Small Populations Laboratory for Conservation and Ecological Genetics University of Idaho PO Box 441136 Moscow, ID 83844-1136 Phone: (208) 885 7823 Fax: (208) 885 9080 lwaits@uidaho.edu http://www.cnrhome.uidaho.edu/default.aspx?pid=72862 http://www.cnr.uidaho.edu/crissp http://www.cnr.uidaho.edu/lecg/ Lisette Waits <lwaits@uidaho.edu>

#### UIdaho TreeOfLife

"Measuring the tree of life": PhD student position in comparative methods for macroevolution

I have a position opening in Fall 2010 for a PhD student to work in the Harmon lab (http://www.webpages.uidaho.edu/~lukeh/). The student will work as a part of an NSF-funded team on a project called "Measuring the Tree of Life." The project has two goals: to improve the process by which rates of evolution are estimated from comparative data, and to characterize the tempo of diversification and morphological evolution of vertebrates. The student will be involved with developing and testing new comparative methods for macroevolution. The position is a Research Assistantship in the Department of Biological Sciences at the University of Idaho. Funding is guaranteed and the student will have no teaching responsibilities for at least the first two years.

The successful applicant will have strong quantitative skills. The work involves statistical analysis and computer programming, so math and computer skills are essential. My lab is affiliated with the Bioinformatics and Computational Biology program and the Initiative for Bioinformatics and Evolutionary Studies at the University of Idaho, so applications from students with a strong desire to learn computational skills will also be considered. I also want a student who is not afraid to think big and to work at broad and diverse scales.

We have a very interactive department with a number of great evolutionary biologists (http://www.uiweb.uidaho.edu/biology/). In particular, my lab works in close collaboration with Erica Bree Rosenblum's lab (http://people.ibest.uidaho.edu/ ~ bree/index.html). We also live in a beautiful part of the country, in a nice small town in the Pacific Northwest in relatively close proximity to many national parks, Seattle, and Portland.

Application information can be found at: http://www.uiweb.uidaho.edu/biology/graduate.html#app . Applications are due on December 15, 2009. Please indicate on your application that you are interested in the tree of life project. Feel free to contact me (lukeh@uidaho.edu) if you want to hear more about the project.

To enrich education through diversity the University of Idaho is an equal opportunity/affirmative action employer.

Luke Harmon Assistant Professor Biological Sciences University of Idaho 208-885-0346 lukeh@uidaho.edu

lukeh@uidaho.edu lukeh@uidaho.edu

#### UJyvaskyla PathogenResistance

PhD-student position at the Centre of Excellence in Evolutionary Research (University of Jyväskylä, Finland and EAWAG/ETH-Zürich, Switzerland)

#### ECOLOGY AND EVOLUTION OF PATHOGEN RE-SISTANCE IN THERMALLY VARIABLE ENVIRON-MENTS

One important factor modifying host-pathogen interactions is the variation in environmental conditions (e.g. ambient temperature). Ongoing climate change is expected to increase the frequency of extreme weather conditions such as heat waves, and this has been suggested to have a large impact on ecological interactions. In this project, the effect of high ambient temperature on pathogen resistance of a freshwater snail Lymnaea stagnalis will be examined. The goals of the project are to determine 1) how high temperature affects snail immune functions, 2) how these alterations are connected to other life history traits (e.g. longevity, reproduction), and 3) if natural snail populations across Europe show additive genetic variation in tolerance for high temperature and if they are able to adapt to changing environmental conditions.

We invite highly motivated students with a good background in evolutionary ecology to apply for the position. A MSc or equivalent degree is required. Earlier experience with snails or immunological work is not required. The student will work in a research group led by Prof. Jukka Jokela (EAWAG/ETH-Zürich, Switzerland). The group is part of the Centre of Excellence in Evolutionary Research based in University of Jyväskylä in Finland and the student will register as a graduate student in the University of Jyväskylä. Some of the field work will be done in Finland and the rest of the work (most experiments, writing) will be carried out at EAWAG in Switzerland. Funding is for 3 years.

Starting date: early 2010

If interested, please submit your CV, contact information for two references, and a brief summary of research experience and interests to Otto Seppälä (otto.seppaelae@eawag.ch). The position will be open until a suitable candidate has been found.

Dr. Otto Seppälä Prof. Jukka Jokela

Otto.Seppaelae@eawag.ch Otto.Seppaelae@eawag.ch

#### UKansas Hydrozoan EvoDevo

Graduate Opportunity at the University of Kansas in Hydrozoan Evo-Devo

I am seeking a PhD student to work on a newly funded project to study of the evolution and development of hydrozoans. My lab focuses on many aspects of cnidarian evolution, including molecular systematics, biogeography and development. Students that are interested in combining phylogenetics with developmental gene expression to study character evolution are encouraged to apply. Student must be highly motivated, have a demonstrated ability to work independently and show a keen interest in hydrozoans, phylogenetics, developmental processes and evolution.

The Ecology and Evolutionary Biology program at the University of Kansas offers five years of guaranteed support through a combination of graduate teaching assistantships, research assistantships, and university fellowships. For more information, please go to: http://www.people.ku.edu/~pcart/index.html and http://www2.ku.edu/~eeb/ . For additional information or to apply please contact me at by email; pcart@ku.edu.

Paulyn Cartwright Assistant Professor Department of Ecology and Evolutionary Biology 1200 Sunnyside Ave. Haworth Hall, Rm. #7016 University of Kansas Lawrence, KS 66045

Phone: 785/864-4432 Fax: 785/864-5860

http://www.people.ku.edu/~pcart/index.html Paulyn Cartwright <pcart@ku.edu>

## ULeeds UExeter SexRatioDistorter

NERC funded PhD; Univs Leeds & Exeter, UK

The effect of a parasitic sex ratio distorter on behavioural interactions between native and invading crustaceans- what is the impact of parasites on aquatic invasions? Supervisors Dr Alison Dunn (Univ of Leeds) and Prof Nina Wedell (Univ of Leeds). Studentship to start early 2010. Further details and application via FindAPhD http://www.findaphd.com/search/showproject.asp?projectid=4556&theorder=-2&location=&univ=&disc=bs&searchtype=b&keyword=&scip=1808&scif=72&socp=-163&socd=130&socf=19&pd=0&page or email a.dunn@leeds.ac.uk

Dr Alison M. Dunn, Reader in Evolutionary Ecology, Institute of Integrative and Comparative Biology, Faculty of Biological Sciences, University of Leeds LS2 9JT UK Tel +44 (0)113 3432856 Fax +44 (0)113 3432835 email a.dunn@leeds.ac.uk

A.Dunn@leeds.ac.uk

program are guaranteed stipend support and tuition waivers for ten semesters.

To be considered for a travel award, prospective PhD students need only apply for admittance to our graduate program: http://www.bio.miami.edu/grad.html. Information about our faculty and their research interests can be found at: http://www.bio.miami.edu . The closing date for consideration is January 1st, 2010. Direct inquiries to Marisa Hightower, Graduate Program Administrator, mhightower@bio.miami.edu.

Alex Wilson <acwilson@bio.miami.edu>

### UMiami EvolutionaryBiol

GRADUATE OPPORTUNITIES IN BIOLOGY The Department of Biology at the University of Miami is pleased to announce the availability of travel awards for prospective PhD students. Awarded on a competitive basis, each award provides a domestic roundtrip flight to Miami, Florida and covers lodging while in Miami. Travel awards provide interested students with the opportunity to meet faculty, graduate students, and their prospective cohort. Awards will be announced by early February 2010, and travel will be scheduled for March 25-28th 2010.

The Biology Department has recently expanded its facilities and its faculty, with a large influx of new faculty working in three core areas: Neurobiology, Developmental Biology, and Ecological and Evolutionary Genomics. These new research strengths coupled with strong traditions in Ecology, Behavior and Tropical Biology combine to create a department that provides broad and integrative training in the biological sciences. This vibrant environment also fosters an abundance of opportunities to pursue interdisciplinary research. Biology interacts with researchers from the medical and marine campuses, the Center for Computational Science, and the Departments of Chemistry, Physics, Mathematics and Computer Science. Biology also utilizes local resources such as the Everglades, the Fairchild Botanic Garden and the Organization for Tropical Studies. These programs and opportunities assure a graduate program of excellence.

Support for graduate study is available through multiple sources, including departmental research assistantships, teaching assistantships, and University fellowships. Graduate students admitted to the PhD Our training program includes evolutionary aspects of biological invasions.

UMinnesota EvolutionInvasions

The Risk Analysis for Introduced Species and Genotypes IGERT at the University of Minnesota seeks applicants to enter the program in Fall 2010. This Integrative Graduate Education and Research Traineeship (IGERT) Program is supported by the National Science Foundation and focuses on policy-relevant research. The program educates Ph.D. students to conduct research to improve Risk Analysis in relation to introductions of species or novel genotypes and to contribute workable solutions to policy questions and problems affecting the management of introduced species and genotypes. Evolutionary aspects of biotic introductions are under investigation, as are ecological and social dimensions. Trainees will complete a graduate minor in Risk Analysis for Introduced Species and Genotypes and typically receive two years of NSF funding which includes a stipend of \$30,000 and an an annual allowance of \$10,500 toward tuition and health insurance.

Areas of research interest include: Invasive plant evolution Ecology of GMOs and other novel genotypes Prevention of invasion Confined ecological risk assessment Restoration ecology Science and technology policy Biological control of invasives

For a complete list of faculty, their interests and more information about the program see: http://isg-igert.umn.edu . Applications are due 31 December 2009. Apply online at: http://isg-igert.umn.edu/application/ The ISG-IGERT program promotes the value of a diverse scientific community. We are committed to making the ISG-IGERT at the University of Minnesota a welcoming environment in which graduate students and faculty work together in a diverse setting for science education, research, and service to society. This program provides equal access to educational opportunities through recruitment, admission, and support programs that promote diversity, foster successful academic experiences, and cultivate the leaders of the next generation.

shawx016@umn.edu

#### UNebraska EvolutionaryBiology

PhD position in Integrative Evolutionary Biology, School of Biological Sciences, University of Nebraska, USA

The Brisson lab is seeking candidates to fill a Ph.D. studentship in the School of Biological Sciences at the University of Nebraska, Lincoln. We're looking for students with an interest in evolutionary and/or developmental biology. Specifically, the student will contribute to an NIH funded project examining the molecular genetic basis of pea aphid wing dimorphisms using evolutionary genetics and transcriptomics.

Interested students should contact Jenn Brisson by email (jbrisson2@unl.edu) for more information by December 8, 2009. Please include a curriculum vitae and a statement of research interests and qualifications. Please also include the words "Graduate student application" in the subject line of the email.

For information on the School of Biological Sciences and guidelines for the Graduate program, see http://www.biosci.unl.edu/ . Jenn Brisson Assistant Professor School of Biological Sciences University of Nebraska Lincoln, NE 68588 (402) 613-4135

jbrisson2@unl.edu

## Univ of Stirling Evolutionary Biology

PhD studentship in multivariate evolution

I seek candidates for a full-time three-year PhD studentship in Evolutionary Biology at the University of Stirling, for which funding has already been secured. The research topic is somewhat flexible but will be related to the broad themes of my research group (http:/-/www.sbes.stir.ac.uk/people/bussiere/), most of which are related to the evolution of complex phenotypes. Much of my current research exploits insect model systems such as field crickets, dung flies, and dance flies to study controversial issues in natural and sexual selection. We measure multivariate selection and evolution in the wild and study evolutionary and phenotypic responses to stresses in replicated laboratory populations. The detailed research plan will be devised in consultation with me before the position begins.

My students and I apply a mix of theoretical approaches, behavioural studies, quantitative genetics and molecular techniques to track inheritance and reproductive success in natural and laboratory populations. We have a large network of collaborators from leading research groups around the world. Depending on the topic of study chosen, there are likely to be several opportunities for training or conducting fieldwork with one or more of these collaborators overseas.

Stirling is conveniently situated within easy commuting distance from Glasgow and Edinburgh but is also moments from the stunning natural environments of the Scottish Highlands. With arguably the most scenic campus in the United Kingdom, the School of Biological and Environmental Sciences at the University of Stirling features a young and research active group of scientists. The collegial and intellectual atmosphere combined with nearby and easy access to fantastic natural areas makes for an ideal working environment. Furthermore, the opportunities for scientific interactions with other Scottish Universities are numerous.

The successful candidate will be self-motivated, intellectually curious, creative, and dedicated to working long hours during periodically labour-intensive experiments. He or she will be expected to contribute actively to the intellectual climate of the School of Biological and Environmental Sciences, where the program includes active participation in School seminars and training in presentation skills, experimental design and advanced statistical techniques. The starting date is negotiable, but ideally the project should begin as soon as possible.

Candidates should provide a statement of research interests and a CV including contact information for at least 2 referees to Luc Bussière (luc.bussiere@stir.ac.uk). Additional evidence of the candidate's scholarly activities (e.g., published papers or theses) is welcome but not required. I will begin screening applicants starting November 10, but will continue to consider applications until the position is filled. Please direct any request for more information to the email address above.

Luc Bussière Lecturer in Evolutionary Biology School of Biological and Environmental Sciences University of Stirling Stirling FK9 4LA United Kingdom

luc.bussiere@stir.ac.uk luc.bussiere@stir.ac.uk

#### **UNotreDame Speciation Disease**

The Hollocher laboratory is seeking highly motivated PhD students interested in interdisciplinary approaches that link population genetics to other core disciplines to address fundamental questions in speciation and disease ecology.

A major focus of my laboratory is on linking population genetics with developmental biology and genomic analyses in order to understand how changes in gene regulation and development lead to reproductive incompatibilities (i.e. hybrid sterility and inviability) and morphological differentiation (specifically, pigmentation patterning) among closely related species of Drosophila in Africa and the Caribbean. Along these lines we investigate how genetic polymorphisms within species contribute to fixed differences between species for developmental traits important in speciation.

More recently we have started a new avenue of research that links population genetics to GIS analysis, computer modeling, and parasitology to investigate how physical, social, cultural, and genetic landscapes interact to influence pathogen transmission dynamics in populations of long-tailed macaques in humanaltered landscapes in Southeast Asia. Here, we use genetic structuring of macaque hosts and their pathogens to make predictions about how specific aspects of these different landscape features facilitate or inhibit pathogen transmission among populations.

For more information, visit the Hollocher laboratory homepage (http://www.nd.edu/%7Ehholloch/index.html).

The ideal PhD candidate would have a strong background in evolutionary and population genetics and experience with molecular laboratory work. Experience in the field would be a plus, but not absolutely essential. Students in my laboratory are encouraged to develop their own research projects within the general framework of the questions being addressed by the laboratory. Interested students should send an e-mail describing your research interests and prior experience to: hope.hollocher.1@nd.edu.

The Hollocher laboratory is part of a larger group of active researchers housed in the Department of Biological Sciences (http://www.biology.nd.edu/), University of Notre Dame (http://www.nd.edu/), which offers a wide-range of research opportunities and graduate coursework in all aspects of evolutionary biology, allowing students to excel in field, laboratory, and genetic analyses. Strengths of the program include: population and evolutionary genetics, genomics, speciation, adaptation, global climate change, and disease ecology. Our close-knit faculty provides interdisciplinary research opportunities and excellent research mentorship. The department boasts state-of-the-art core research facilities and has researchers working in field sites throughout the US, British Columbia, Africa, the Caribbean, China, and Southeast Asia.

Graduate Research and Teaching Assistantships and several competitive fellowships are available for students wishing to pursue Ph.D. degrees, including fellowships in our department's IGERT-GLOBES graduate training program that supports students interested in interdisciplinary approaches to solving human and environmental health issues (http://globes.nd.edu/). No matter the ultimate source of support, all students receive a generous stipend with full tuition provided by the Graduate School.

To request an application form or to apply electronically, see our departmental website (http://www.biology.nd.edu/) or the Notre Dame Graduate School website (http://graduateschool.nd.edu). The application deadline for Summer/Fall 2010 admission is 5 January 2010, but earlier submission is strongly encouraged.

 Hope Hollocher Associate Professor Department of Biological Sciences Galvin Life Sciences University of Notre Dame Notre Dame, IN 46556

Tel. 574-631-4569 FAX 574-631-7413 e-mail: hope.hollocher.1@nd.edu

Hope Hollocher <hholloch@nd.edu>

## **UOulu GooseEvolution**

PhD student position at the Department of Biology, University of Oulu, Finland Domestication history of the European goose

Domestic goose Anser anser domesticus has been one of the earliest and most important examples of bird domestication. In Europe alone there are approximately 50 recognised breeds. However, virtually nothing is known about timing, location and manner of goose domestication, and how it compares to domestication of other species. This will be the first detailed study of these phenomena. We will use molecular markers (mtDNA, microsatellites, genome sequencies) and geometric morphometrics to study modern wild and domestic as well as archaeological specimens. The project brings together multidisciplinary expertise in population and conservation genetics (Minna Ruokonen, University of Oulu), phylogeography (Jeremy Searle, University of York/Cornell University), livestock domestication and archaeology (Keith Dobney, University of Aberdeen). A bioinformatician will join the project in 2011.

The student will be based at the Department of Biology, University of Oulu, where he/she will join the Population Genetics Group (to be formed in 2010) with ca. 30 academic researchers and technical staff. The group belongs to the Population Genetics Graduate School. The studentship will involve substantial periods of research at both Cornell University and the University of Aberdeen.

The position is for four years (2010-2013) and the starting date is early 2010. Starting salary is ca. 2000 eur per month, and can be raised after assessment of personal performance (as evaluated by ECTS and publications) and changes in the job demand level. The position includes some teaching responsibilities (5% from the annual working time).

We invite motivated applicants with background and M.Sc. in a relevant field (population or conservation genetics, molecular archaeology). The applicants should submit their CV, contact information of two referees and a short statement of their research interests (including a summary of MSc or undergraduate work) as a single .pdf file to minna.ruokonen@oulu.fi. Review of the applicants will begin December 15th, but applicants will be considered until the position is filled.

For additional information contact: minna.ruokonen@oulu.fi keith.dobney@abdn.ac.uk or Jeremy Searle at jbs3@york.ac.uk

More information at: www.flcrp.org http://cc.oulu.fi/ ~ biolwww/PopGenSchool/ http://cc.oulu.fi/ ~ biolwww/english/index.html http://www.abdn.ac.uk/archaeology/staff/staff.php?id=keith.dobney http://bioltfws1.york.ac.uk/biostaff/- staffdetail.php?id=jbs Minna Ruokonen Department of Biology POB 3000 FIN-90014 University of Oulu FINLAND minna.ruokonen(at)oulu.fi +358-(0)8-553 1807 (office) +358-(0)8-553 1061 (fax) http://www.flcrp.org/ Minna Ruokonen <minna.ruokonen@oulu.fi>

## USaskatchewan AdaptationGenomics

A PhD student position in Genomics of adaptation and speciation is immediately available in the newly formed lab of Dr. Jose A. Andres at the University of Saskatchewan, Canada. My lab combines evolutionary biology with molecular genetics, bioinformatics and genomics to study the genetic architecture of reproductive isolation and adaptive traits. See http://www.usask.ca/biology/andres/index.htm for a description of current research. I am looking for a highly motivated graduate student to work on the genetic evolution and genetic architecture of beak length in soapberry bugs (Jadera haematoloma). Candidates should have a strong undergraduate background in evolutionary biology. Prior research experience in molecular genetics (PCR, cloning, sequencing) is desirable. For more information and inquiries please contact Jose Andres at jose.andres@usask.ca

/Jose

jaa695@mail.usask.ca

USheffield HouseSparrow MolecularEvolution

PhD position available at the University of Sheffield, Molecular Ecology Lab.

Project: Personality and reproductive success in house sparrows In behavioural and evolutionary biology, there has been a recent explosive interest in the phenomenon known as behavioural syndromes (i.e., animal personality or consistent behavioural differences between individuals across diverse contexts). A realization of the ubiquity of behavioural syndromes in the wild has shaken the traditional view of animal behaviour where behavioural phenotypes should be infinitely flexible to be adaptive at any given context. Despite much interest in animal personality research, still very little is known about how different personality can affect the fitness of animals. We will use a long-term monitored population of house sparrows on Lundy Island to investigate the link between fitness and personality in the wild. There are five personality traits recognized: activity, boldness, exploration, aggressiveness and sociability. We will particularly focus on the first three personality traits. Our previous studies have demonstrated that two behavioural traits, parental care and fidelity (quantified by extra-pair mating) are repeatable within individuals, meaning, for example, that some individuals express consistently high parental care or that others are successful at gaining extra-pair paternity through their lifetime. Obviously these two traits have significant fitness consequences. The project will be among the first to investigate intricate interactions among these fitness-related behavioural traits (parental care and mate fidelity) and personality traits (e.g., activity, boldness and exploration). The project fits in a larger research program focusing on understanding the short-term and long-term consequences of the interactions between genes and behaviour.

Requirements: We are seeking a motivated and independent team player to join our House-sparrow research group. Ideally, you have previous research experience, and are interested in birds and behavioural ecology. Knowledge of handling birds and/or a ringing license are an advantage, but not a requirement. You will be expected to spend the breeding season on Lundy Island for data collection and should be able to start early 2010. The graduate position is for 3 years. The student will be supervised by Prof. Terry Burke, Julia Schroeder (Sheffield University) and Shinichi Nakagawa (Otago University, NZ).

Available to UK residents only, due to grant restrictions. Please send your application (CV, letter of motivation and two references to Terry Burke T.A.Burke@sheffield.ac.uk or Julia Schroeder julia.schroeder@sheffield.ac.uk.

julia.schroeder@gmail.com

### UStAndrews CyanobacterialGenomics

41

We are seeking applicants for a PhD position at the University of St Andrews, Scotland.

#### EVOLUTION AND FUNCTION OF CYANOBACTE-RIAL GENES AND GENOMES

Supervisors: Dr Daniel Barker, University of St Andrews, and Professor Geoffrey Codd, University of Dundee.

This project will improve knowledge of the evolution, metabolism, ecotoxicological status and biotechnological potential of cyanobacteria by the development and application of bioinformatics algorithms. Cyanobacteria are a metabolically diverse group of photosynthetic prokaryotes of global distribution. They play a crucial role in biogeochemical cycles (oxygen, carbon, nitrogen), produce toxins which present major health hazards to humans and animals, yet also contain metabolites with the apeutic and biotechnological applications, including biofuels. At least 48 cyanobacterial genomes have been sequenced. However, the function of many of the genes in their genomes remains unknown. This represents a major gap in biological knowledge which would be difficult to fill by traditional approaches. We have developed a comparative, bioinformatics procedure to delimit groups of genes which are functionally linked, on the basis of correlated gain and loss of those genes from genomes. This must be vastly improved, to also model gene-phenotype and geneenvironment interactions, and applied to cyanobacteria. The project would involve research in computational comparative genomics. Results will be of interest to researchers in bioinformatics, environmental and health sciences and in biotechnology.

Informal enquiries to Daniel Barker, db60@st-andrews.ac.uk

For further details, including how to apply, please see:

http://biology.st-and.ac.uk/projectProfile.aspx?psr=-433&pid=168 IMPORTANT NOTE ON FUNDING

A successful candidate would receive funding (covering fees and stipend) from the Natural Environment Research Council (NERC) and Marine Alliance for Science & Technology Scotland. Funding is ONLY possible for candiates who meet NERC's criteria:

http://www.nerc.ac.uk/funding/application/-

studentships/studentbook2008.pdf In particular, please note the section "Residence" (pp. 3-6). If you do not meet these criteria, please only apply for this position if you have already obtained funding yourself.

Best regards,

Daniel

Dear Evoldir,

– Daniel Barker http://bio.st-andrews.ac.uk/staff/db60.htm The University of St Andrews is a charity registered in Scotland : No SC013532

db60@st-andrews.ac.uk db60@st-andrews.ac.uk

## UWisconsin Milwaukee EvolutionaryEcol

Graduate position (PhD) in Landscape Genetics/Genomics in the lab of Dr. Emily Latch, Department of Biological Sciences, University of Wisconsin-Milwaukee.

I am seeking a highly motivated and enthusiastic PhD student interested in the evolution, conservation, and management vertebrate populations to join my lab in fall 2010. Research in my lab employs molecular genetic tools and statistical genetic methods to address fundamental questions in vertebrate population genetics and evolutionary ecology. Many projects have an applied focus, helping to design, implement, and monitor conservation and management programs. Members of the lab are encouraged to develop independent research within this scope. Current research in the lab includes molecular investigations of hybrid zone evolution, landscape genetic structure, population establishment following translocation, and characterization of mating systems. In particular, I am looking for a student interested in hybrid zone evolution and the application of genomic tools to evolutionary ecology. Qualified candidates should have experience with DNA-based genetic/genomic analysis, and experience with ArcGIS and large SNP datasets is a plus. Funding in the form of assistantships, research support, and travel grants are available for qualified candidates.

For more information about the Latch Lab, visit: http://people.uwm.edu/latch To learn more about graduate studies in the Department of Biological Sciences at UWM, visit: http://www.uwm.edu/Dept/-Biology/Docs/Grad/gradindex.html If you are interested, please send me an email including 1) a statement of research interests, 2) a brief overview of your previous academic and research experiences, and 3) how your interests might fit with the lab. Also please include a CV (with GPA and GRE scores). Qualified candidates will also have to apply to the UWM Graduate School. The review of applications will begin immediately and will remain open until the position is filled. Anticipated start date is August 2010. Emily K. Latch Assistant Professor Dept. of Biological Sciences University of Wisconsin - Milwaukee 3209 N. Maryland Ave. Milwaukee, WI 53211

Email: latch@uwm.edu Tel: 414-229-4245

Emily K Latch <a href="https://www.edu">latch@uwm.edu</a>

## UWisconsin Milwaukee Phylogeography

Graduate position (MS) in Landscape Genetics/Phylogeography in the lab of Dr. Emily Latch, Department of Biological Sciences, University of Wisconsin-Milwaukee.

I am seeking a highly motivated and enthusiastic MS student interested in the evolution, conservation, and management vertebrate populations to join my lab in fall 2010. Research in my lab employs molecular genetic tools and statistical genetic methods to address fundamental questions in vertebrate population genetics and evolutionary ecology. Many projects have an applied focus, helping to design, implement, and monitor conservation and management programs. Members of the lab are encouraged to develop independent research within this scope. Current research in the lab includes molecular investigations of hybrid zone evolution, landscape genetic structure, population establishment following translocation, and characterization of mating systems. At this time, I am particularly interested in pursuing research projects involving phylogeography or MHC variation in mule deer. Qualified candidates should have prior experience with DNA-based genetic analysis. Funding in the form of assistantships, research support, and travel grants are available for qualified candidates.

For more information about the Latch Lab and specific research projects available, visit: http://people.uwm.edu/latch To learn more about graduate studies in the Department of Biological Sciences at UWM, visit: http://www.uwm.edu/Dept/-Biology/Docs/Grad/gradindex.html If you are interested, please send me an email including 1) a statement of research interests, 2) a brief overview of your previous academic and research experiences, and 3) how your interests might fit with the lab. Also please include a CV (with GPA and GRE scores). Qualified candidates will also have to apply to the UWM Graduate School. The review of applications will begin immediately and will remain open until the position is filled. Anticipated start date is August 2010.

Emily K. Latch Assistant Professor Dept. of Biological Sciences University of Wisconsin - Milwaukee 3209 N. Maryland Ave. Milwaukee, WI 53211

Email: latch@uwm.edu Tel: 414-229-4245

Emily K Latch <latch@uwm.edu>

#### **UWyoming MicrobialEvolution**

Ph.D. Assistantship in Microbial Cell Biology and Evolution

A graduate assistantship (Ph.D.) is available at the University of Wyoming in Laramie (http://www.uwyo.edu) for a student interested in the evolutionary history and biological consequences of cellular compartmentalization in bacteria. It is now known that bacteria, long considered to be simple life forms, include species with complex cell plans. While some compartments have well-characterized roles in sequestering physiological processes, the function of others is undetermined. The significance of membrane-bound compartments (superficially resembling eukaryotic nuclei) that separate genomic DNA from other bacterial cell contents is particularly elusive.

Applicants should have a strong record of academic excellence, prior laboratory experience, and a demonstrated interest in microbial evolution and cell bi-The project is bench-based; students interology. ested in pursuing purely computational approaches should not apply. Motivated students with prior experience in immunofluorescence or immunoelectron microscopy and/or in vivo detection of protein expression will be given especially strong consideration. The successful candidate will be enrolled through the University of Wyoming's Molecular and Cellular Life Sciences Ph.D. program (http://www.uwyo.edu/-MCLS/), or the Department of Molecular Biology's Ph.D. program (http://uwacadweb.uwyo.edu/uwmolecbio/PhD.asp). The position will ideally begin in late spring/early summer of 2010.

To apply: Please email the following application materials (as one PDF file) to Naomi Ward at nlward@uwyo.edu: 1) a current resume or CV, including GPA and test scores (if available); 2) a cover letter, including research interests, professional goals and prior experience; and 3) contact information, including email addresses, of three potential references. Review of applications will begin February 1, 2010.

For more information on the Ward research group, please visit www.naomiwardlab.org . nl-ward@uwyo.edu

#### **UZurich Inbreeding**

4-Year PhD position on the evolutionary genetics of isolated populations with Dr. Erik Postma and Prof. Dr. Lukas Keller at the University of Zurich, Switzerland.

Integrating pedigree and marker data to study inbreeding depression and purging in the wild

Even after over a century of research, the interplay between inbreeding, genetic variation and fitness remains a fascinating and active area of research, with many questions remaining unanswered. Recent molecular and statistical advances have opened up new avenues for research, providing exciting opportunities to gain a more mechanistic understanding of inbreeding depression in the wild.

We have recently embarked on a large-scale project on the genetic basis of inbreeding depression in the song sparrow (Melospiza melodia) population on Mandarte Island, Canada. This population has some of the most complete and extensive pedigrees of any natural population, and analyses of inbreeding and its consequences have revealed significant inbreeding depression in several fitness components.

Currently we are in the process of genotyping the complete population for a large number of genetic markers. Combining this genetic information with extensive pedigree and life-history data will provide a unique opportunity to gain a better understanding of how inbreeding affects genetic variation, and how genetic variation affects fitness.

For this PhD project we are seeking somebody who is independent, creative and highly motivated, with an interest in (quantitative and population) genetics and (evolutionary and behavioural) ecology. Our ideal candidate has no fear of equations, statistics and large amounts of data, but is not afraid to get his or her hands dirty in the lab or the field either. Experience with programming in R or SAS is not essential. The willingness to learn either of the two is, however, crucial. While the song sparrow population dataset will provide the centrepiece of the project, excursions into other systems (ranging from ibex to fruit flies) are possible, and in fact highly encouraged. We offer a stimulating and social working environment, excellent facilities (including a well-equipped molecular lab). The student will participate in the PhD program in evolutionary biology of the University of Zurich. The starting date of the project is negotiable.

Zurich consistently ranks amongst the cities with the highest quality of life. While it offers all the pleasures of living in a bigger city, thanks to its central location and excellent public transport connections, it is extremely easy to get out of the city and head for the mountains, in both summer and winter.

Applicants should have an MSc (or equivalent) in a relevant field.

Applications should include 1) a cover letter, including a brief description of what you have to offer to the project and our group, and what you hope to get back in return 2) a detailed curriculum vitae 3) the contact details of two references 4) a 1 page summary of your MSc or undergraduate work

Send the above as a single .pdf file to e.postma@access.uzh.ch

Review of applications will start on 15 December 2009, but candidates will be considered until the position is filled.

For more information, feel free to contact Erik Postma (e.postma@access.uzh.ch), or visit www.erikpostma.net – Erik Postma

Zoological Museum University of Zürich-Irchel Winterthurerstrasse 190 CH-8057 Zurich Switzerland

Phone: +41 (0)44 635 47 66 Fax: +41 (0)44 635 68 18Skype: erik\_postma

e-mail: e.postma@access.uzh.ch

website: www.erikpostma.net

PhD Positions in Ecology, Biogeography and Conservation (Jetz Lab) Dept of Ecology and Evolutionary Biology (EEB) Yale University

Up to two fully-funded PhD positions are available starting Fall 2010. We are interested in students with research experience who are excited about interdisciplinary work spanning a range of ecological scales. Applicants should have a strong interest in combining theory, data analysis and modeling, and potentially fieldwork to address questions in Community ecology, Community phylogenetics, Geographical ecology, Movement ecology, Biodiversity science, Biogeography, Biodiversity informatics, and Global change ecology. Our preferred study system is terrestrial vertebrates, but work on other groups (including plants) is possible. The student will be integrated in the department's thriving graduate program in ecology and evolution and will be able to interact closely with related programs in the neighboring Yale School of Forestry & Environmental Studies. Annual stipends are ca. \$27k.

RESEARCH GROUP: In the Jetz Lab, the successful candidate will interact with two finishing PhD students and four postdoctoral fellows. For further information see: http://www.yale.edu/jetz. In the Jetz Lab, the EEB Department, the Yale Institute for Biospheric Studies (http://www.yale.edu/yibs), the Peabody Museum (both physically connected to the EEB Department), and the Yale Climate & Energy Institute there are excellent training opportunities in GIS, macroecology, phylogenetics, phylogeography, macroevolution, biodiversity science, climate change science, global change ecology, and more.

APPLICATIONS: Please note that applications are due December 4, 2009. For further information see http://www.yale.edu/eeb/grad/index.htm and http:/-/www.yale.edu/graduateschool/admissions/index.html Walter Jetz, Associate Professor Ecology and Evolutionary Biology Yale University, 165 Prospect Street New Haven, CT 06520-8106, USA Email: walter.jetz@yale.edu

walter.jetz@yale.edu walter.jetz@yale.edu

YaleU BiogeographyConservation

## Jobs

BostonU EvolutionaryFuncGenomics45
BostonU EvolutionaryFunctionalGenomics
BroadInst ComputationalBiol
Canberra PlantSystematist47
Cornell ComputationalBiologyBioinformatics47
CornellU 2 BioinformaticsProgrammer 48
ETH Zurich 2 EvolutionaryBiology48
FordhamU EvolutionaryEcol 49
KansasStateU PathogenHostEvolution
LewisClarkCollege ComputationalBiol50
MNHN Paris LabTech ButterflyEvolutionaryGenetics
F 1
51
MurdochU ConservationBiol
MurdochU ConservationBiol
MurdochU ConservationBiol
MurdochU ConservationBiol
MurdochU ConservationBiol51NatlUIreland Galway PlantEvoEcologyLecturer52OhioU EvolutionaryBiol52PennStateU EvolutionAnalyst53
MurdochU ConservationBiol51NatlUIreland Galway PlantEvoEcologyLecturer52OhioU EvolutionaryBiol52PennStateU EvolutionAnalyst53PrincetonU EvolutionaryBiologist53
MurdochU ConservationBiol   51     NatlUIreland Galway PlantEvoEcologyLecturer   52     OhioU EvolutionaryBiol   52     PennStateU EvolutionAnalyst   53     PrincetonU EvolutionaryBiologist   53     SmithCollege ResAssist GenomeEvolution   54
MurdochU ConservationBiol   51     NatlUIreland Galway PlantEvoEcologyLecturer   52     OhioU EvolutionaryBiol   52     PennStateU EvolutionAnalyst   53     PrincetonU EvolutionaryBiologist   53     SmithCollege ResAssist GenomeEvolution   54     SpelmanCollege EvolutionaryBiology   54     UAlabama Genomics   55
MurdochU ConservationBiol51NatlUIreland Galway PlantEvoEcologyLecturer52OhioU EvolutionaryBiol52PennStateU EvolutionAnalyst53PrincetonU EvolutionaryBiologist53SmithCollege ResAssist GenomeEvolution54SpelmanCollege EvolutionaryBiology54
MurdochU ConservationBiol   51     NatlUIreland Galway PlantEvoEcologyLecturer   52     OhioU EvolutionaryBiol   52     PennStateU EvolutionAnalyst   53     PrincetonU EvolutionaryBiologist   53     SmithCollege ResAssist GenomeEvolution   54     SpelmanCollege EvolutionaryBiology   54     UAlabama Genomics   55     UAlabama PopulationGenetics   55

## BostonU EvolutionaryFuncGenomics

Boston University Faculty Positions in Integrative/Systems Biology

Biology Department (http://www.bu.edu/-The biology/) invites applications for two appointments, pending budgetary approval. Both positions are open to candidates at either the Assistant or Full Professor level. Successful candidates will participate in the development of integrative/systems biology both within the department and as part of a University-wide interdisciplinary initiative in Systems Biology and Bioinformatics (http://www.bu.edu/bioinformatics/) for which additional faculty hires are anticipated. Junior candidates will be expected to establish an independent research program with extramural funding and participate in both undergraduate and graduate Senior candidates will be expected to teaching. play a leadership role in the Systems Biology and

UCincinnati Watershed Evolution57
UFlorida InsectEvolution
UFlorida LepidopteraCollectionManager58
UFlorida LepidopteraCurator59
UGeorgia EvolutionaryPlantGenetics59
UGeorgia ResTech PlantEvolution60
UGroningen FieldAssist ShorebirdEvolution60
UKansas ResTech Drosophila61
ULeicester EvolutionOfBehaviour61
ULeipzig LabTech62
ULouvain AssistantMScLevel ButterflyEvolution 62
UManchester ResAssoc MalariaVectorGenomics 63
UMelbourne Lecturer PlantSystematicsEvolution63
UMichigan ComputationalEvolBiol64
UPadova Bioinformatics
USaskatchewan EvolutionaryGenetics
USouthernCalifornia EvolutionaryGenomics65
UWisconsin LaCrosse EvolutionaryBiology65
UWisconsin SpringSemesterLecturer
Vienna PopulationGenetics GroupLeader
VillanovaU EndowedChairGenetics67
Zurich TheoreticalEvolutionaryEcosystems68

Bioinformatics Program, and should also have an interest in future service as chair of a broad-based Biology Department with a commitment to both undergraduate and graduate education.

Please submit a cover letter, curriculum vitae, and statement of research and teaching interests in a single electronic document. E- mail this document and three representative reprints to the Chair of the appropriate search committee and arrange for three letters of reference to be sent independently to the same email address. Review of applications will begin November 15, 2009.

Evolutionary Functional Genomics: The research area of this appointment will be a systems level approach toevolutionary ecology and functional genomics of nonmodel organisms. Please submit applications to Dr. Michael Sorenson, Chair, Evolutionary Functional Genomics Search Committee, Department of Biology, Boston University atebesearch@bu.edu.

Cell Signaling Networks: The research area of this appointment will involve the use of state-of-the-art approaches to study cell signaling and gene regulatory networks. Please submit applications to Dr. Ulla Hansen, Chair, Cell Signaling Search Committee, Department of Biology, Boston University at cmsearch@bu.edu.

Boston University is an equal opportunity/affirmative action employer.

Michael Sorenson Associate Professor Department of Biology Boston University 5 Cummington St. Boston, MA 02215

(617) 353-6983 FAX: (617) 353-6340

msoren@bu.edu msoren@bu.edu

### BostonU EvolutionaryFunctionalGenomics

\*\*Please note that the previous message about this position listed an incorrect e-mail address. Please use:

#### ebesearch@bu.edu

Boston University Faculty Positions in Integrative/Systems Biology

Biology Department (http://www.bu.edu/-The biology/) invites applications for two appointments, pending budgetary approval. Both positions are open to candidates at either the Assistant or Full Professor level. Successful candidates will participate in the development of integrative/systems biology both within the department and as part of a University-wide interdisciplinary initiative in Systems Biology and Bioinformatics (<u>http://www.bu.edu/</u>bioinformatics/) for which additional faculty hires are anticipated. Junior candidates will be expected to establish an independent research program with extramural funding and participate in both undergraduate and graduate Senior candidates will be expected to teaching. play a leadership role in the Systems Biology and Bioinformatics Program, and should also have an interest in future service as chair of a broad-based Biology Department with a commitment to both undergraduate and graduate education.

Please submit a cover letter, curriculum vitae, and statement of research and teaching interests in a single electronic document. E- mail this document and three representative reprints to the Chair of the appropriate search committee and arrange for three letters of reference to be sent independently to the same email address. Review of applications will begin November 15, 2009. Evolutionary Functional Genomics: The research area of this appointment will be a systems level approach toevolutionary ecology and functional genomics of nonmodel organisms. Please submit applications to Dr. Michael Sorenson, Chair, Evolutionary Functional Genomics Search Committee, Department of Biology, Boston University at ebesearch@bu.edu.

Cell Signaling Networks: The research area of this appointment will involve the use of state-of-the-art approaches to study cell signaling and gene regulatory networks. Please submit applications to Dr. Ulla Hansen, Chair, Cell Signaling Search Committee, Department of Biology, Boston University at cmsearch@bu.edu.

Boston University is an equal opportunity/affirmative action employer.

Michael Sorenson Associate Professor Department of Biology Boston University 5 Cummington St. Boston, MA 02215

(617) 353-6983 FAX: (617) 353-6340

#### **BroadInst ComputationalBiol**

Associate Computational Biologist at the Broad Institute req #135

We are searching to fill an Associate Computational Biologist position for the Infectious Disease Initiative at the Broad Institute. The person filling this position will assist in performing bioinformatic analyses on genomic and transcriptomic data from malaria parasites. She or he will work collaboratively with other bioinformatic scientists as well as wet lab biologists to interpret data and make it accessible to a large interdisciplinary group. The scope of activities may range from generating analysis pipelines that will be used many times to carrying out one off analyses to ask a specific question of a particular dataset. The broader goals of the work will be to better understand the general biology and evolution of malaria parasites, as well as determine how genomic diversity contributes to drug-resistance, immune evasion, and other etiologies that make malaria one of the most severe global threats to public health.

#### CHARACTERISTIC DUTIES

â Perform bioinformatic analyses to extract biological meaning from ânext-generationâ sequencing data and array-based genotyping and transcription data for malaria parasites â Research and identify proper approaches for interrogating data using primary literature â Work collaboratively with wet lab scientists at the Broad as well as other institutions to make data accessible and interpretable â Learn, utilize, and extend existing tools and pipelines for data analysis within the group â Submit large datasets to public archives â Perform other duties as necessitated by the position or as assigned

REQUIREMENTS: â Masterâs degree in computer science, bioinformatics, biological Sciences, or related field â Proficiency in: Unix, Scripting languages such as Perl or Python â Working knowledge of: Sequence analysis tools (BLAST, HMMer, etc.), Statistical tools (R, Matlab, etc.) and Relational databases â General abilities required: multi-task, work independently, collaborative skills, adapt to changing priorities, work in face paced environment, analytical skills, verbal communications skills, written communication skills, presentation skills

Interested candidates should apply online at http://www.broadinstitute.org/careers/career-center or email kristina@broadinstitute.org

Krissy Zambouras <kristina@broadinstitute.org>

### Canberra PlantSystematist

Plant Systematist https://recruitment.csiro.au/asp/job\_details.asp?RefNo=3D2009/976 The Centre for Plant Biodiversity Research at CSIRO Plant Industry seeks a qualified, skilled and motivated scientist to research molecular and morphological systematics of key groups of the Australian flora. The research will involve establishing the identity, diversity and origins of Australian plant groups - including characterising relationships using morphology and molecular data, developing hypotheses and phylogenies of plant lineages in an evolutionary context. In particular we are seeking a researcher to initiate a research program focusing on the Australian members of the Asteraceae, one of the largest and less understood groups of the Australian flora. Projects will use the collection resources of the Australian National Herbarium (ANH), The Australian National Botanic Gardens (ANBG) and its partner Australian herbaria and overseas agencies.

Possible projects include systematics of major lineages of Australian Asteraceae, including plants of horticultural utility. These studies may include morphological and anatomical studies, investigation of polyploidy, ecotype differentiation, plant-animal interactions, population genetics and the application of Next GenerationDNA sequencing technologies to address these questions. The successful applicant will work with a team and develop a collaborative research program. Experience in Asteraceae systematic is beneficial but highly qualified applicants that are willing begin a new research program in Asteraceae systematics are encouraed to apply.

Location: Canberra, Australia Salary: \$83k to \$90k Reference: 2009/976 Close date: 31 December 2009 Contact: Should you require more information on this position please contact Dr Joe Miller by email: Joe.Miller@csiro.au<mailto:Joe.Miller@csiro.au>

Application information is available on https://recruitment.csiro.au/asp/job\_details.asp?RefNo=-2009/976 Joe.Miller@csiro.au Joe.Miller@csiro.au

## Cornell ComputationalBiologyBioinformatics

Faculty position in Computational biology and Bioinformatics at Cornell in Ithaca Applications due Dec 15, 2009

Assistant, Associate or Full Professor Applications are invited for a tenure-track position in Computational Biology in Cornell University's Computer Science Department. The position could be at the assistant, associate, or full professor level, depending on experience. Applicants must possess a Ph.D. in computer science, or a Ph.D. in a related field and sufficient expertise in computer science to fit within a CS department.

Outstanding applicants in all areas of computational biology will be considered.

Research areas of special interest include: - evolutionary, comparative, and population genomics; - applications of new high-throughput genomic or proteomic technologies; - dynamical behavior at the sub-cellular and cellular levels; - networks in biological systems; and applications of machine learning to biological problems.

The new recruit will join a vibrant, well funded, and interactive life and quantitative sciences community at Cornell and would be a candidate for membership in the new Cornell Center for Comparative and Population Genomics (http://vivo.cornell.edu/individual/vivo/- CornellCenterforComparativeandPopulationGenomics). nell focused around the recently launched Cor-Additional relevant Centers and resources include the Cornell Center for Advanced Computing (http://www.cac.cornell.edu/), the Life Sciences Core Laboratories Center (http://cores.lifesciences.cornell.edu/brcinfo/) and

To ensure full consideration, applications should be received by December 15, 2009, but they will be accepted until the position is filled. Applicants should submit a curriculum vitae and a research statement and should arrange to have three reference letters submitted, at http://www.cs.cornell.edu/apply. Cornell University is an equal opportunity employer and welcomes applications from women and ethnic minorities.

http://www.cs.cornell.edu/Information/JobPostings/-Bioinformatics/index.htm Chip Aquadro <CFA1@cornell.edu>

## **CornellU 2 BioinformaticsProgrammer**

Bioinformatics Programmer Positions (2) at Cornell University: Computational Genomics and Analysis of Next-Generation Sequencing

Two scientific programmer positions are available immediately in the laboratories of Andrew Clark and Alon Keinan at Cornell University, to join a group of investigators using computational approaches to tackle current problems in the analysis of whole-genome data.

The positions involve developing and applying computational methods as part of multiple research projects at the interface of human population genomics, human complex disease risk prediction, and the analysis of large-scale sequencing data. Responsibilities include programming, database construction and management, and research-related tasks. The successful candidate will take part in mining emerging genomewide data sets, such as those being developed by the 1000 Genomes Project (http://1000genomes.org).

The ideal candidate will have a strong quantitative background involving graduate-level research in computer science, mathematics, physics, or a related field, substantial programming experience involving large data sets, and an interest in working in genetics. Previous experience in biology is preferable, but not required.

The Clark and Keinan labs are part of the broader population genomics community at Cornell Center for Comparative and Population Genomics (http://vivo.cornell.edu/all/individual/vivo/-CornellCenterforComparativeandPopulationGenomics). Competitive salaries commensurate with experience and skills will be offered, as well as generous benefits. One of the positions can be part time.

Interested applicants should send a PDF with CV and contact information for three references to ak735@cornell.edu, indicating "position 303" in the subject line. Informal inquiries are welcome.

Alon Keinan, Assistant Professor Department of Biological Statistics & Computational Biology 102A Weill Hall | Cornell University | Ithaca, NY 14853 ak735@cornell.edu | 607-254-1328 phone | 607-255-4698 fax http://keinanlab.cb.bscb.cornell.edu/ Andrew Clark, Professor Department of Molecular Biology and Genetics 227 Biotech | Cornell University | Ithaca, NY 14853 http://mbg.cornell.edu/cals/mbg/research/clark-lab ak735@cornell.edu ak735@cornell.edu

## ETH Zurich 2 EvolutionaryBiology

#### TWO ASSISTANT/ASSOCIATE PROFESSOR-SHIPS AT ETH ZURICH IN THE FIELDS OF ECOLOGY AND EVOLUTION

Assistant / Associate Professor of Evolutionary Biology

The Department of Environmental Sciences at ETH Zurich (www.env.ethz.ch) invites applications for a professorship in evolutionary biology at the associate (tenure) or assistant (tenure track) level.

Candidates with outstanding scientific track records in any related field will be considered, but preference may be given to applicants working on animal population biology and/or natural host-parasite systems. The candidate is expected to establish a world-class research group and to integrate into research activities in related fields at ETH Zurich.

The successful candidate will contribute to the teaching of undergraduate and graduate level courses for students of the Departments of Environmental Science as well as Biology. He or she will be expected to teach undergraduate level courses (German or English) and graduate level courses (English). The professorship will be equipped with a generous personnel and operational budget, but the candidate will be expected to obtain further funds for research through competitive grants.

Assistant professorships have been established to promote the careers of younger scientists. The initial appointment is for four years with the possibility of renewal for an additional two-year period and promotion to a permanent position.

Please submit your application together with a curriculum vitae and a list of refereed publications to the President of the ETH Zurich, Prof Dr. Ralph Eichler, Raemistrasse 101, 8092 Zurich, Switzerland, no later than January 31, 2010. With a view towards increasing the proportion of female professors, ETH Zurich specifically encourages female candidates to apply.

For questions about the position please e-mail Prof. S. Bonhoeffer (sebastian.bonhoeffer@env.ethz.ch ).

Assistant / Associate Professor of Plant Ecology

The Department of Environmental Sciences at ETH Zurich (www.env.ethz.ch) invites applications for a professorship in plant ecology at the associate (tenure) or assistant (tenure track) level. Candidates with outstanding scientific track record in the general field of plant ecology will be considered, but preference may be given to candidates working on plant population or community ecology. The future professor is expected to establish a world-class research group and to integrate into research activities in related fields at ETH Zurich.

The successful candidate will be expected to teach undergraduate and graduate level courses for students of the Department of Environmental Science and the Department of Biology. He or she will be expected to teach undergraduate level courses (German or English) and graduate level courses (English). This professorship will be equipped with a generous personnel and operational budget, but the candidate will be expected to obtain further funds for research through competitive grants.

Assistant professorships have been established to promote the careers of younger scientists. The initial appointment is for four years with the possibility of renewal for an additional two-year period and promotion to a permanent position.

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For questions about the position please e-mail Prof. A. Widmer (alex.widmer@env.ethz.ch ).

--- Sebastian Bonhoeffer Theoretical Biology Insti-

tute of Integrative Biology (IBZ) ETH Zurich, Universitaetsstr. 16 ETH Zentrum, CHN K12.1 CH-8092 Zurich Switzerland

ph(office) +41 44 6327106 ph(secr) +41 44 6336033 fax +41 44 6321271 www.tb.ethz.ch

#### FordhamU EvolutionaryEcol

Evolutionary ecologists are encouraged to apply for this position.

#### ECOLOGY FACULTY POSITION

The Department of Biological Sciences of Fordham University invites applicants for a tenure track faculty position at the ASSISTANT or ASSOCIATE PROFES-SOR level for Fall 2010. We seek a population, community or evolutionary ecologist who studies freshwater fish, invertebrates or microbes. The successful applicant will have access to Fordham's biological field station - the Louis Calder Center, and our new Center for Conservation, Evolution and Urban Ecology (CCEUE), as well as the opportunity to work with scientists at the Wildlife Conservation Society, American Museum of Natural History, the New York Botanical Garden, and other scientific institutions in the region. The successful candidate is expected to make use of local and regional resources to develop or continue a rigorous, externally-funded research program, and is expected to teach courses and mentor individual research projects at both the undergraduate and graduate level. Postdoctoral experience is expected.

Applicants should email one PDF file containing a cover letter, curriculum vitae, contact information for three references, and a research statement to thornhill@fordham.edu. The cover letter should be addressed to Dr. William Thornhill, Chair, Department of Biological Sciences, Fordham University, 441 E. Fordham Road, Larkin Hall 160, Bronx, NY 10458. Candidates will be reviewed when their applications are received and we will continue to accept applications until the position is filled. Fordham University is an independent, Catholic university in the Jesuit tradition that welcomes applications from men and women of all backgrounds. Fordham is an EOE.

Gordon Plague <plague@fordham.edu>

## KansasStateU PathogenHostEvolution

# ASSISTANT PROFESSOR KANSAS STATE UNIVERSITY PATHOGEN-HOST INTERACTIONS

The Division of Biology at Kansas State University invites applications for a tenure-track Assistant Professor position beginning in the 2010/2011 academic year. We seek an outstanding individual who will establish a vigorous, extramurally funded research program within the area of pathogen-host interactions, specifically the study of animal or human viruses or eukaryotic parasites and their interactions with hosts or vectors. Please note that candidates working exclusively with prokaryotic organisms should apply to a separate position that is currently being advertised in the Division of Biology (weblink). Our areas of interest are broad and include molecular or genomic research on animal or human pathogens and pathogenhost or pathogen-vector interactions, including immunity or the evolution of such associations. The successful candidate will complement existing strengths in infectious disease research on campus, and will also contribute to graduate and undergraduate in struction in the Division of Biology. A Ph.D. or equivalent and post-doctoral training are required. The position includes a competitive salary and start-up package. The Division of Biology (www.k-state.edu/biology) features a diverse, collegial, and interactive faculty who collectively bring in over \$10 million per year in extramural research funding, and includes a research and graduate training program in Molecular, Cellular, and Developmental Biology (www.k-state.edu/mcdb). as well as research initiatives in Functional Genomics (www.k-state.edu/functionalgenomics), Ecological Genomics (ecogen.k-state.edu), and Arthropod Genomics (www.k-state.edu/agc), among others. K-State is a major research university with excellent research facilities, including the newly constructed Biosecurity Research Institute, a state-of-the-art BSL3 building located on the main campus. K-State is situated in Manhattan, a pleasant college town of roughly 50,000 people in the rolling Flint Hi lls region of northeast Kansas.

Application instructions can be found at (http://www.k-state.edu/biology/position1.html). Questions about the position can be directed to Dr. Rollie Clem, Search Committee Chair (rclem@ksu.edu). Review of applications will begin November 30, 2009 and continue until the position is filled. KSU is an Equal Opportunity/Affirmative Action Employer, and actively seeks diversity among its employees. Criminal background checks are required for all employees.

Theodore Morgan Division of Biology Kansas State University 116 Ackert Hall Manhattan, KS 66506 office: 785.532.6126 lab: 785.532.6074 fax: 785.532.6653 Email: tjmorgan@ksu.edu www.ksu.edu/morganlab tjmorgan@ksu.edu tjmorgan@ksu.edu

## LewisClarkCollege ComputationalBiol

#### Dear Colleagues,

Distinguished Visiting Professor for Computational Biology

Lewis and Clark College in Portland, OR has obtained funding from the Howard Hughes Medical Institute to bring to campus for one semester a scholar with expertise in bio-informatics/computational biology and experience in teaching undergraduates. The position would be ideal for someone on sabbatical leave. The scholar will be expected to teach one course and to help organize and contribute to a faculty development workshop on bio-informatics. The concrete outcome of the workshop will be the development of an upper division, projects-based computational biology course for biology and biochemistry majors. Position available Fall 2010. To obtain more information, please contact Dr. Deborah Lycan, HHMI Program Director, Dept. of Biology, Lewis and Clark College, 0615 SW Palatine Hill Road, Portland, OR 97219 (lycan@lclark.edu).

Anne Jourdan HHMI Administrative Assistant 219A Bodine Bldg MSC #50~0615 S.W. Palatine Hill Rd. Portland, OR 97219 Phone: 503.768.7782 Fax: 503.768.7658

Anne Jourdan <jourdan@lclark.edu>

## MNHN Paris LabTech ButterflyEvolutionaryGenetics

Lab research technician - Evolutionary genetics of butterfly wing patterns CNRS - Museum National dHistoire Naturelle, Paris.

Duration: up to 3 years Funding: European Research Council Net monthly salary: 1700-2000 Euros Deadline for application: 3 December 2009

A full-time research technician position ("ingenieur d'etudes") is available in the group of Mathieu Joron at the Natural History Museum in Paris (CNRS Lab 'Origins, structure and evolution of biodiversity', http://www.mnhn.fr/oseb/), to work on the genetic dissection and molecular ecology of wing pattern mimicry. The project (MimEvol) aim is to unravel the genomic organisation, genetic variation, expression patterns of the genomic regions associated with wing pattern variation in mimetic butterflies (Heliconius and Papilio).

The candidate will assist postdocs and students with molecular genetic approaches such as DNA/RNA extractions, genetic mapping, genotyping, library construction, or gene expression studies. The person will also be in charge of general lab management duties and supervising new students at the bench, and may take part, with the rest of the team, in the maintenance of live insect stocks and overseas field work.

We are looking for a person with experience in classic DNA and RNA techniques (from extraction to cloning and genomic libraries) and able to implement newer protocols, e.g. towards the use of high-throughput sequencing. Experience with gene expression and bioinformatics will be appreciated. Knowledge of French can be a plus to interact with students, suppliers, admins, etc., but is not mandatory.

Duration : up to 3 years depending on starting date (1 Feb. 2009 earliest) Monthly salary: 1700-2000 euros depending on experience.

Send applications by 3 December, including an application letter with details of motivations and research or technical interests, date of availability, a detailed CV, and the contact details of at least two referees. Do not hesitate to make informal contact with Mathieu Joron for more information on the project and expectations.

Contact and information:

joron@mnhn.fr

http://heliconius.zoo.cam.ac.uk/joron/ http://www.heliconius.org Mathieu Joron CNRS researcher, UMR CNRS 7205 Musum National d'Histoire Naturelle Dpartement Systmatique et Evolution 16 Rue Buffon, cp39, 75005, Paris Tel: 0033-(0)1-40-79-80-92 Fax: 0033-(0)1-40-79-33-42 http://heliconius.zoo.cam.ac.uk/joron/ Mathieu Joron <joron@mnhn.fr>

#### MurdochU ConservationBiol

\* 4 year Fixed Term appointment at Murdoch University, Perth, Australia \* \$82,802 to \$100,036 including employer superannuation contributions and an opportunity to salary package

The School of Biological Sciences & Biotechnology welcomes your application to join a highly research active and strong teaching School at Murdoch University for a four year contract position of Lecturer (Level B, fulltime) in molecular biology and biochemistry. The successful applicant will be expected to have experience in molecular biology techniques, undergraduate teaching and research supervision.

The appointee will contribute to unit development and coordination, lecturing and laboratory teaching in units in the Molecular Biology, Forensic Biology & Toxicology and Conservation and Wildlife Biology programs.

The appointee will be expected to undertake research in projects aligned closely with the Ancient DNA and Wildlife Identification laboratories, contribute to the supervision of research students and apply for external research funds.

For further information please contact Associate Professor Carolyn Jones, on C.Jones@murdoch.edu.au or alternatively on +61 8 9360 2159.

Application procedures and a position description with detailed selection criteria are available from the University's web site at <a href="http://jobs.murdoch.edu.au/">http://jobs.murdoch.edu.au/</a>. All applicants should address the selection criteria within their application.

Closing date: Monday, 28 December 2009

further details can be found at: https:/-/wwwforms.murdoch.edu.au/pls/news/-

NEWSQIT\$NITEM.QueryView?P\_UNIQUE\_KEY1=-4980 Dr Michael Bunce Ancient DNA Lab School of Biological Sciences and Biotechnology Murdoch University South Street Western Australia 6150 Australia Em: M.Bunce@murdoch.edu.au Ph: +61 (08) 93607649 Mobile: 0406 998025 Fax: +61 (08) 9360 6303 website:http://wwwstaff.murdoch.edu.au/~mbunce/ Mike Bunce <m.bunce@murdoch.edu.au>

## NatlUIreland Galway PlantEvoEcologyLecturer

NUIGalway.PlantEvoEcologyLecturer

Lecturer Fixed Term in Botany & Plant Science - 2 year contract post

National University of Ireland, Galway

Applications are invited for a 2 year part-time (40%) job share) Fixed Term Lectureship in Plant (Evolutionary) Ecology within the Discipline of Botany & Plant Science, from February 1st, 2010. The discipline has active research interests across a range of fundamental and applied research aspects of botany and plant science. These research interests span plant research on ecology, evolution, paleobotany, plant reproduction, phycology, physiology, phytochemistry molecular genetics, epigenetics, genomics, bioinformatics, and biotechnology. The discipline is engaged in research on ecosystems, plant communities, crops and plant model organisms in Ireland and internationally, including with partners in developing countries. The discipline contributes to teaching of undergraduate B.Sc programmes in Botany, Environmental Science, Marine Science and Biotechnology.

The successful candidate will have demonstrated research expertise in plant evolutionary ecology (e.g. plant adaptation reproduction, polyploidy, hybridisation, invasion, dispersal, diversification, speciation) with a focus on field-based investigations. The successful candidate will be required to have a PhD in plant evolutionary ecology (or a related area) and have demonstrated research expertise in terms of peerreviewed publications. In addition, success in research grant income capture will be an advantage. The successful candidate will contribute to delivery of existing teaching modules, practicals and field courses for undergraduate students in the area of plant ecology.

The successful candidate will be encouraged to establish their own independently funded research programme (as a Principal Investigator) and contribute to the training of graduate students and other researchers. The candidate will be facilitated to lever additional research funding from national and international sources on their research topics of interest. This 40% job share position may suit a candidate with an existing funded research programme/fellowship who wishes to also engage in teaching and training of students at Lecturer level.

For informal discussions contact: Professor Charles Spillane, Head of Discipline: Email: charles.spillane@nuigalway.ie

For further information on Botany & Plant Science at NUI Galway, see current version of website: www.nuigalway.ie/botany Salary scale: EUR42,709 x 10 = EUR60,575 p.a. (pro-rata)

Closing date for receipt of applications is at 5.00 p.m. on Friday December 18th 2009.

Further information is available from the HR Office: http://www.nuigalway.ie/vacancies; Email: hr@nuigalway.ie; Tel. 353 91 492151

Candidates should submit six hard copies of their application (i.e. cv, summary of curriculum vitae form, covering letter), with the names and addresses of at least three and not more than five referees to: The Human Resources Office,National University of Ireland, Galway, Galway. Please note that applications by email or fax will be rejected. National University of Ireland, Galway is an equal opportunities employer.

"Spillane, Charles" <C.Spillane@ucc.ie>

#### **OhioU EvolutionaryBiol**

**Evolutionary Biologist** 

The Department of Biological Sciences, Ohio University in Athens invites applications for a tenure-track Assistant Professor in Evolutionary Biology. We seek to hire a candidate whose research interests complement the current strengths within the department and who would contribute to the climate of diversity in the College. Applications will be accepted from candidates working with animal systems, across the entire range of this discipline. The department particularly encourages applications from individuals working in the areas of phylogenetics, comparative biology and/or animal behavior. A Ph.D. is required in a related area and postdoctoral experience is preferred. Applicants should submit their CV, statements of research interests and teaching philosophy, and up to 5 reprints/preprints to www.ohiouniversityjobs.com/applicants/Central?quickFindT986. They should also arrange to have three letters of recommendation sent to Evolution Search, Department of Biological Sciences, Ohio University, Athens OH 45701. Review of applications will begin January 15th, 2010 and continue until the position is filled. Ohio University is a Research-Extensive institution, enrolling 19,500 students on the Athens campus, and is home to the Ohio Center for Ecology and Evolutionary Biology (www.occees.ohio.edu), an interdisciplinary group of faculty from departments across the University. Women and minority candidates are strongly encouraged to apply.

If you applied for this position last year, the materials you submitted will be re-evaluated starting January 15th 2010. If you would like to supplement your application, please contact Wendy Kaas at kaaz@ohio.edu. If you are no longer interested in being considered for this position, you can go to www.ohiouniversityjobs.com/applicants/-Central?quickFindT986 and withdraw, or send an email to Wendy Kaaz at kaaz@ohio.edu.

Molly R Morris Professor Department of Biological Sciences Ohio University Athens OH 45701

Molly Morris <morrism@ohio.edu>

#### PennStateU EvolutionAnalyst

#### Molecular Evolution Analyst

A full-time position is available immediately in a molecular evolution laboratory supervised by Dr. Blair Hedges in the Department of Biology at The Pennsylvania State University (University Park). The successful candidate for this position will assist with ongoing research projects, with primary responsibility being evolutionary analysis of DNA sequence data. Requires a bachelor of science in the biological and/or computer sciences or related fields. Must have analytical skills in working with DNA sequence data, such as in tree building. Computer programming skills (e.g., PERL) are required. Salary commensurate with experience. Screening of applicants to begin immediately and continue until position is filled. To apply, email your resume, college transcripts, contact information for three references, and a cover letter briefly describing your experience, interest in the job, and career goals to Dr.

Hedges at ajh34@psu.edu. This is a fixed-term appointment funded for one year from date of hire with a good possibility of re-funding.

Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce.

sbh1@psu.edu sbh1@psu.edu

PrincetonU EvolutionaryBiologist

#### ASSISTANT PROFESSORSHIP PRINCETON UNI-VERSITY ECOLOGY, EVOLUTION, BEHAVIOR

Princeton University's Department of Ecology and Evolutionary Biology seeks an ecologist, behaviorist or evolutionary biologist with an interest in climate change and its impacts. We seek applicants whose research involves empirical studies, modeling or a mixture of the two and with a strong commitment to teaching. Applicants should write a vision statement, no longer than 2 pages, that outlines one or more major unsolved problems in their field and how they plan to address them. The vision statement should go beyond a précis of the applicant's prior and current research and it should explain the connection to climate studies.

Applications, including the vision statement, curriculum vitae, three reprints, and the names and email addresses of three references who will be contacted automatically can be submitted online via http://jobs.princeton.edu/applicants/Central?quickFind=-58397 (strongly preferred) or by mail to Professor

Stephen Pacala, Search Committee Chair, Department of Ecology & Evolutionary Biology, Guyot Hall, Princeton University, Princeton, NJ 08544-2016.

Screening of applications will begin 15 November 2009 and continue through December. For information about applying to Princeton and how to self-identify, please link to http://web.princeton.edu/sites/-dof/ApplicantsInfo.htm. We strongly recommend that all interested candidates use the online application process.

Princeton University is an equal opportunity employer and complies with applicable Equal Employment Opportunity and affirmative action regulations.

Diane Carlino <dcarlino@Princeton.EDU>

Donate free: http://www.hungersite.com Laura A Katz <lkatz@smith.edu>

## SmithCollege ResAssist GenomeEvolution

Research Assistant Position at Smith College

The research technician will use molecular and bioinformatics tools to explore genome evolution within the ciliate Chilodonella uncinata, and to elucidate evolutionary relationships among ciliates. The technician will PCR, clone and sequence multiple genes from ciliate micronuclear and macronuclear genomes. The technician will also characterize genes from ciliate mitochondria using both traditional and walking PCR. Further, the technician will track cultures using light microscopy and ultimately work with the PI to develop fluorescence microscopy for these systems. Finally, the technician will need to maintain data in a well-organized database, with attention paid to details of completeness and quality, while also supporting general lab functions.

Requirements: Bachelor's degree plus at least one year lab and informatics experience.

Skills: Must be highly motivated to collect and catalog DNA sequence data, and to perform bioinformatics tasks. Experience with basic molecular skills, including PCR, cloning and sequencing; knowledge of biopython, ClustalW, PAUP, RaxML, and other informatics tools designed to analyze DNA sequence data would be ideals. Also need basic microscopy skills to maintain ciliate cultures.

This is a full-time, one year grant funded position with the possibility of renewal. Smith College is an equal opportunity employer encouraging excellence through diversity.

Please contact Laura Katz (lkatz@smith.edu) with questions.

More information on the Katzlab can be found at: http://www.science.smith.edu/departments/-Biology/lkatz/ Official Job posting can be found at: https://jobs.smith.edu/ -

Laura A. Katz, Elsie Damon Simonds Professor Department of Biological Sciences lkatz@email.smith.edu College Lane Smith College Northamp-44 MA 01063 Phone: 413-585-3825 ton, (office) 413-585-3750 (lab) Fax: 413-585-3786 http://www.science.smith.edu/departments/Biology/lkatz/ Loans that change lives: http://www.kiva.org/

## SpelmanCollege EvolutionaryBiology

Spelman College invites applications for positions listed below beginning August 2010. Founded in 1881, Spelman College is a private four-year liberal arts college located in Atlanta, GA. Spelman is a member of Atlanta University Center, and the oldest predominantly black college for women in the United States. The Biology Department is housed in the Albro-Falconer-Manley Science Center, a state-of-the-art 150,000 sf research and training facility, fully equipped to support contemporary life sciences research. For more information, go to: http://www.spelman.edu/academics/programs/biology/index.shtml . The Biology Department is accepting applications for two tenure track/tenured faculty positions: Assistant/Associate Professor in Physiology, and Assistant Professor in Field Biology. Field Biology V Assistant/Associate Professor Candidates will be considered in the broad areas of Evolutionary Biology or Ecology who can provide Spelman students with field experiences, both through formal course work and mentored research. The candidate will contribute to an introductory population/evolution course and develop advanced elective courses. The candidate will also be able to establish an active research program that will involve undergraduates in mentored research.

Applicants must have a PhD or equivalent in the biological sciences, post-doctoral research experience, and strong interest in undergraduate teaching, mentoring, and research. Spelman Biology faculty maintain independently funded research programs and engage in active research with students. Competitive start-up packages are available for new faculty. With one of the largest majors at Spelman, the Biology Department is nationally recognized for its role in training women of color for graduate and professional studies in the sciences. The successful candidates will assist in developing and teaching introductory and advanced elective courses in their area of specialization, participate in student advising, and establish a productive research program. Applicants committed to teaching and mentoring science students in a liberal arts environment should send current curriculum vitae, statement of teaching philosophy, statement of research interest,

transcripts and three reference letters to:

Office of the Provost ATTN: Biology Search Committee Chair Spelman College 350 Spelman Lane SW Atlanta, GA 30314-4399

Review of applications will begin December 1, 2009 and will continue until the positions are filled.

Thanks for considering this request. Sincerely,

Aditi Pai, PhD Assistant Professor Biology Department 269 Science Center Spelman College 350 Spelman Ln Atlanta, GA 30314 Phone: 404 270 5778 Website: www.spelman.edu/~apai Aditi Pai <APai@spelman.edu>

#### **UAlabama Genomics**

Genomics Department of Biological Sciences The University of Alabama

The Department of Biological Sciences at the University of Alabama invites applications for a tenure-track position at the ASSISTANT PROFESSOR level in GE-NOMICS to begin August 2010. We seek a person who employs whole-genome, proteomic and/or metabolomic approaches to study fundamental problems in cell biology, developmental biology, genetics, microbiology, organismal biology and/or evolution. The successful candidate will be expected to establish a research program of high quality and impact and contribute to the teaching mission of the department.

Candidates must have a Ph.D. and post-doctoral research experience. The successful applicant will be expected to establish an active, externally-funded research program that includes graduate and undergraduate student mentoring. Teaching responsibilities will likely include an undergraduate core course and a graduate course in the successful applicant's area of expertise. The successful applicant will interact with a wide variety of biologists across the department's two sections: Molecular and Cellular Biology, and Ecology, Evolution, and Systematics. Additional opportunities for interactions exist in the Departments of Chemistry, Chemical and Biological Engineering, and Computer Science.

A complete application includes 1) an application letter with a list of at least three references (including contact information), 2) CV, 3) statement of research interests and goals, and 4) statement of teaching interests and philosophy. To apply, go to https:// facultyjobs.ua.edu, complete the online application (Job # 0802696), and upload your CV. Send all of the materials (including CV) as pdf attachments to bsc-search@ua.edu using "Genomics" in the subject line. Potential candidates may contact the chairperson of the search committee, Dr. Edwin Stephenson at estephen@bama.ua.edu or 205-348-1828, if additional information is required. Consideration of applications will begin 15 December 2009, and continue until the position is filled.

For information about the department visit our website at http://www.as.ua.edu/biology/. The University of Alabama is an Equal Opportunity/Equal Access Employer and actively seeks diversity among its employees.

—- Dr. Leslie Rissler Associate Professor and Curator of Herpetology Department of Biological Sciences 307 Mary Harmon Bryant Hall Box 870345 University of Alabama Tuscaloosa, AL 35487

office: 205-348-4052 lab: 205-348-4039 rissler@bama.ua.edu http://www.as.ua.edu/biology/rissler.htm http://web.mac.com/ljrissler/lab/ rissler@bama.ua.edu rissler@bama.ua.edu

## **UAlabama PopulationGenetics**

#### **Population Genetics**

Department of Biological Sciences The University of Alabama

The Department of Biological Sciences at The University of Alabama invites applicants for a tenure-track faculty position at the rank of ASSISTANT PROFES-SOR in POPULATION GENETICS (broadly-defined) to begin August 2010. All areas of empirical and/or theoretical population genetics will be considered. Candidates that integrate theoretical, mathematical approaches with empirical studies of natural populations are especially encouraged to apply. We seek a colleague with an exceptional research record in population genetics, quantitative genetics, ecological or evolutionary genetics, or similar evolutionary subfield.

Candidates must have a Ph.D. and post-doctoral research experience. The successful applicant will be expected to establish an active, externally-funded research program that includes graduate and undergraduate student mentoring. Teaching responsibilities will likely include an undergraduate core course in Genetics and a graduate course in the successful applicant's area of expertise. The successful applicant will interact with a wide variety of biologists across the department's two sections: Ecology, Evolution, and Systematics, and Molecular and Cellular Biology.

A complete application includes 1) an application letter with a list of at least three references (including contact information), 2) CV, 3) statement of research interests and goals, and 4) statement of teaching interests and philosophy. To apply, go to https:// facultyjobs.ua.edu, complete the online application (Job # 0802695), and upload your CV. Send all of the materials (including CV) as .pdf attachments to bscsearch@ua.edu using "Population Genetics" in the subject line. Potential candidates may contact the chairperson of the search committee, Dr. Leslie J. Rissler at Rissler@bama.ua.edu or 205-348-4052, if additional information is required. Consideration of applications will begin 15 December 2009, and continue until the position is filled.

For information about the department visit our website at http://www.as.ua.edu/biology/. The University of Alabama is an Equal Opportunity/Equal Access Employer and actively seeks diversity among its employees.

— Dr. Leslie Rissler Associate Professor and Curator of Herpetology Department of Biological Sciences 307 Mary Harmon Bryant Hall Box 870345 University of Alabama Tuscaloosa, AL 35487

office: 205-348-4052 lab: 205-348-4039 rissler@bama.ua.edu http://www.as.ua.edu/biology/rissler.htm http://web.mac.com/ljrissler/lab/ rissler@bama.ua.edu rissler@bama.ua.edu

## UArizona ResTech CoevolutionaryGenomics

A Research Technician position is available in the laboratory of Dr. Noah Whiteman in the Department of Ecology and Evolutionary Biology at The University of Arizona (http://www.eebweb.arizona.edu/Faculty/-Whiteman/).

Research in the lab focuses on co-evolutionary interactions between hosts and parasites. More specifically, the research aims to identify the molecular basis and genomic architecture of host resistance and parasite counter resistance mechanisms in model laboratory and natural systems.

Specific responsibilities will include culturing of plants,

insects and bacteria, conducting growth chamber experiments, laboratory maintenance, procurement of supplies, and performing molecular genetic and genomic analyses. The technician will also have the opportunity to participate in field research, including in the Sonoran Desert and alpine habitats of Arizona.

Qualifications: Arizona Board of Regents Minimum Qualifications Bachelor's degree in a field appropriate to the area of assignment; OR, Four years research experience appropriate to the area of assignment; OR, Any equivalent combination of experience, training and/or education.

Experience culturing Arabidopsis thaliana, Drosophila species, or other plant and insect species is preferred but not required.

To apply, please submit an application online: www.uacareertrack.com/applicants/-Central?quickFind6114 Salary is commensurate with experience and this position will qualify for health benefits.

At 2,500 feet above sea level, culturally diverse Tucson, Arizona is nestled among five mountain ranges in the beautiful Sonoran Desert and is surrounded by Saguaro National Park. Housing is affordable, quality of life is high and outdoor recreation opportunities include the southernmost ski area in the United States. The area receives over 350 days of sunshine per year, average high/low temperatures are 82/54 degrees F and has two rainy seasons per year.

The University of Arizona is an Affirmative Action / Equal Opportunity Employer and it is the policy of The University to ensure equal employment opportunity without regard to race, color, age, religion, sex, national origin, disability, veterans status, sexual orientation or gender identity.

Noah K. Whiteman, Ph.D. Harvard University Organismic and Evolutionary Biology 26 Oxford Street Cambridge, MA 02138 Tel: 617-495-4012 email: nwhiteman@oeb.harvard.edu

"Noah K. Whiteman" <nwhiteman@oeb.harvard.edu>

## UCincinnati EvolutionaryAnthropology

The Department of Anthropology at the University of Cincinnati invites applications for a tenure-track position in genomic anthropology at the rank of Assistant Professor. We seek a colleague whose research interests involve one or more of the following: the anthropological study of complex-trait genetics, population history, disease susceptibility, human-non-human genomic interactions, morphological development, or comparative molecular genomics. Responsibilities of the position include graduate and undergraduate student teaching and advising, as well as departmental, college, and university service. Competitive candidates will have evidence of an active research program, or plans to establish one, that will result in publications, external funding, and the potential for involving graduate and undergraduate students in their research. This position is part of the McMicken College of Arts & Sciences Molecular Markers Research Cluster, which has been established to develop teams of outstanding researchers who have the potential to build major multidisciplinary research programs through collaborations with faculty within the college and across the university.

The appointment begins September 1, 2010, and a Ph.D. in anthropology or a closely related field by that date is required. To apply for this position, please upload a cover letter and curriculum vitae, which includes contact information of three references, to www.jobsatuc.com < http://www.jobsatuc.com/ > (click on "Search Postings" and enter Position Number 29UC5445). Review of applications will begin December 15, 2009 and continue until the position is filled. The University of Cincinnati is an equal opportunity / affirmative action employer. Women, people of color, people with disabilities and veterans are encouraged to apply.

Katherine K. Whitcome Assistant Professor Department of Anthropology 446 Braunstein Hall PO Box 210380 University of Cincinnati Cincinnati, Ohio 45221-0380 Office: 513-556-0369 katherine.whitcome@uc.edu

"Whitcome, Katherine (whitcoke)" <whitcoke@ucmail.uc.edu>

### **UCincinnati Watershed Evolution**

Watershed Ecologist Tenure Track Position: The following job opportunity announcement has been posted on this site because research into several aspects of watershed ecology may involve watershed processes that drive the evolution of organisms. Watershed ecologists investigating such evolutionary issues fit within the following job description.

The Departments of Biological Sciences and Geography, University of Cincinnati, seek a tenure-track Assistant Professor in landscape, ecosystem, or aquatic ecology of watersheds. A Ph.D. and postdoctoral experience are required. Successful candidates will build an outstanding, externally-funded research program, contribute to undergraduate and graduate teaching, and work with faculty in a Geographic Information Networks cluster. Preferred research interests are: structure and function of aquatic ecosystems, terrestrial-aquatic interactions, biogeochemistry, or watershed-scale processes, combined with use of GIS, sensor networks, remote sensing and/or systems modeling. Apply online at https:/-/www.jobsatuc.com< https://www.jobsatuc.com/ > (Position Number 29UC5497) with cover letter and curriculum vita. Send three letters of recommendation, statements of research interests and teaching philosophy, and three representative reprints (PDF preferred) to: wischer@ucmail.uc.edu. Review of applications begins January 20, 2010. The University of Cincinnati is an affirmative action/equal opportunity employer. Women, minorities, disabled persons, and Vietnam Era and disabled veterans are encouraged to apply. \*\*\*

Steven Rogstad Email: steven.rogstad@uc.edu Professor Telephone: 513-556-9744 Biological Sciences ML6 FAX: 513-556-5299 University of Cincinnati Cincinnati, OH 45221-0006

### **UFlorida InsectEvolution**

We have just posted a new tenure-track job in the Entomology and Nematology Department at the University of Florida. The primary focus will be teaching and undergraduate advising, but there is also a substantial research component. The focus of the candidate's research is completely open, as long as it includes insects or other terrestrial arthropods that entomologists might recognize (e.g., mites, spiders, etc.). The University of Florida has a strong interdisciplinary community of people studying ecology and evolution that collaborate across several departments including Entomology and Nematology (http://www.entnemdept.ufl.edu/), Biology (http://www.biology.ufl.edu/), Wildlife Ecology and Conservation (http://www.wec.ufl.edu/), the UF Genetics Institute (http://www.ufgi.ufl.edu/), and more. Individuals with research interests in evolution

or ecology are encouraged to apply. Please see the official advertisement below for more information.

Subject: Faculty position available in Entomology at the Univiersity of Florida

A faculty position in Entomology, with a primary emphasis on undergraduate teaching, is available at the University of Florida. Please see the job description below. Questions about the position can be directed to Heather McAuslane (hjmca@ufl.edu<mailto:hjmca@ufl.edu>). Application should be made online using the UF Jobs web site (https://jobs.ufl.edu/applicants/Central?quickFind=-62552).

Job Description: This is a 12-month tenure-accruing position that will be 80% teaching (College of Agricultural and Life Sciences) and 20% research (Florida Agricultural Experiment Station) in the Department of Entomology & Nematology, Institute of Food and Agricultural Sciences, at the University of Florida. The principal responsibilities will involve teaching undergraduate non-major courses in insect science, serving as the coordinator of the undergraduate program, and actively recruiting and supporting undergraduate majors. The successful candidate will engage in scholarly activities related to instruction, including teaching undergraduate courses, advising and mentoring undergraduate students, supervising undergraduate student research and creative work, participating in curriculum revision and enhancement, seeking funding for the teaching program, publishing teaching-related scholarship, producing learning tools, and engaging in professional development activities related to teaching and advising. The incumbent is also expected to supervise and advise graduate students, obtain significant grant support for the research program, and publish research results in refereed journals. Tenure will accrue in the Department of Entomology & Nematology. This assignment may change in accordance with the needs of the unit. Faculty are encouraged to support and participate in the CALS Honors Program, distance education, and international education. All IFAS faculty are expected to demonstrate commitment and responsibility to the three functions of the Land Grant mission.

Minimum Requirements: An earned doctorate in Entomology or a closely related discipline is required. Experience and demonstrated excellence in undergraduate instruction is required. Candidates should have demonstrated skills in verbal and written communication, interpersonal relationships, computer-based instructional methods, and procurement of extramural funding. The candidates must be supportive of the mission of the Land-Grant system. The candidate must also have a commitment to IFAS core values of excellence, diversity, global involvement, and accountability.

Preferred Qualifications: Postdoctoral experience is desirable.

Special Instructions to Applicants: To ensure full consideration please apply online and submit additional materials by December 15, 2009. Position will remain open until a viable applicant pool is determined. Nominations are welcome. Nominations need to include the complete name and address of the nominee. This information should be sent to the address below. Individuals wishing to apply should go online to https:/-/jobs.ufl.edu (referencing requisition # 0803264) and submit:

- Faculty Profile - short application - Cover letter that states applicant's interest in the position and qualifications relative to the credentials listed above - Complete vita (which includes statement of current position and responsibilities); - Statement of teaching philosophy (as 'References') - Statement of research or extension interests (as 'Other Document') - PDF files of 2-3 of your most important publications (as 'Work Sample')

Also, official transcripts showing receipt of the doctoral degree, and three letters of recommendation should be sent to:

Heather McAuslane

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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

## UFlorida LepidopteraCollectionManager

Thanks so much. The announcement is inserted below.

COLLECTION MANAGER FOR LEPIDOPTERA McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, Gainesville, FL

The Florida Museum of Natural History invites applications for a collection manager position at the McGuire Center for Lepidoptera and Biodiversity. The Center has one of the worldâs largest lepidopteran collections with a large staff and active research programs in systematics, evolutionary biology, ecology and biodiversity conservation.

Requirements include a degree in the biological sciences, preferably M.S. or Ph,D., with appropriate experience in a museum or similar collection-based background, and a broad knowledge of lepidopteran classification. Primary responsibilities will include curation and management of collections (acquisitions, accessions, loans, public inquiries, etc.), and supervision of associated preparators and other staff.

Individuals wishing to apply should visit https://jobs.ufl.edu (referencing requisition # 0803166) and submit an online application which must include a curriculum vitae, three letters of recommendation and a description of your collections managementexperience and knowledge of Lepidoptera. The application deadline is November 16, 2009 and the anticipated start date is January 2010.

``celiazar@flmnh.ufl.edu" < celiazar@flmnh.ufl.edu >

### UFlorida LepidopteraCurator

FLORIDA MUSEUM OF NATURAL HISTORY, UNI-VERSITY OF FLORIDA Assistant Curator of Lepidoptera, McGuire Center for Lepidoptera

The Florida Museum of Natural History invites applications for a tenure-track position of Assistant Curator of Lepidoptera at the McGuire Center for Lepidoptera and Biodiversity. The successful candidate will contribute to collection growth through field research and will develop an extramurally funded research program in systematics, evolutionary biology, ecology or biodiversity. The use of molecular techniques that take advantage of a large existing molecular lab would be desirable. Candidates for this position must also demonstrate teaching excellence, and will be required to teach two courses of their choice annually through allied academic departments. Potential service opportunities exist in exhibit development and public education. In addition, the candidate will be expected to mentor undergraduate and graduate students in research. The Florida Museum of Natural History fosters a collaborative, collegial, and interdisciplinary environment with strong ties to academic departments (Entomology & Nematology, Biology, Wildlife Ecology and Conservation) and institutes (UF Genetics Institute, Emerging Pathogens Institute, and others). Minimum qualifications include a relevant Ph. D.; strong collections, curatorial and research experience would be preferable. Salary is competitive, and start date is open, but may begin as early as 1 July 2010.

Application deadline is 4 Dec. 2009. To be considered, all applications must be submitted online at http://jobs.ufl.edu (requisition #0803201). The application should include a cover letter, curriculum vitae, a statement of research activities and goals (and how these will be enhanced by the use of the McGuire Center's world class collections and molecular laboratory, including comments on museum collections experience where appropriate), and a statement of teaching experience and goals (including a short list of potential courses you might teach). The previously mentioned documents as well as reprints of no more than five publications, and the names of three colleagues who might be contacted for letters of recommendation, should be sent directly to the search committee chair by email before the application deadline: Dr. David Reed, dreed@flmnh.ufl.edu, Chair of the Lepidopterist Search Committee, Florida Museum of Natural History, University of Florida, P. O. Box 117800, Gainesville, FL 32611-7800.

The University of Florida is an Equal Opportunity/Affirmative Action Employer. The selection process will be conducted under the provisions of Florida's "Government in the Sunshine" and Public Records laws.

David L. Reed, Ph.D. Associate Curator of Mammals Florida Museum of Natural History University of Florida Dickinson Hall, Museum Rd & Newell Dr. Gainesville, FL 32611 (352) 273-1971 (voice) (352) 846-0287 (fax) e-mail: dreed@flmnh.ufl.edu http://www.flmnh.ufl.edu/mammals/ dlreed@ufl.edu dlreed@ufl.edu

## UGeorgia EvolutionaryPlantGenetics

Plant evolutionary and ecological geneticists are encouraged to apply for this position.

FACULTY POSITION IN PLANT GENETICS

The University of Georgia has long maintained strengths in plant biology. As part of a long-term effort to build on these strengths, the Department of Genetics invites applications for a tenure-track faculty position in any area of plant genetics at the Assistant Professor level. The candidate will be expected to maintain a rigorous, externally-funded, research program and to contribute to undergraduate and graduate teaching. For information about the breadth of the department, see http://www.genetics.uga.edu.

Applications should be sent by email as a single PDF file (filename format: yourlastname.pdf) that includes a cover letter, CV, and brief statements of research and teaching interests to: \$B!H(Bgenetics@uga.edu\$B!I(B. Three letters of recommendation should also be sent, either as a PDF to the above e-mail address (filename format: applicantlastname\_refereelastname.pdf), or in hard copy, to the Plant Genetics Search Committee, Department of Genetics, Davison Life Sciences Building, University of Georgia, Athens, GA 30602-7223. The closing date for applications is January 8, 2010.

The University of Georgia is an affirmative action, equal opportunity employer and is committed to having a diverse faculty.

Rodney Mauricio <mauricio@uga.edu>

## UGeorgia ResTech PlantEvolution

#### RESEARCH TECHNICIAN POSITION: PLANT EVOLUTIONARY ECOLOGY UNIVERSITY OF GEORGIA

A full-time research technician position is available starting Feb 2010 in the laboratory of Shu-Mei Chang in the Department of Plant Biology at the University of Georgia. The general research interests of lab are to understand how evolutionary and ecological factors may influence the mating systems in flowering plants. Current projects include conservation genetics of endangered species, evolution of separate sexes in flowering plants and functional analyses of male traits in hermaphroditic plants. Field and greenhouse experiments are a big component of these projects so it is crucial that the candidate can work outdoor and in the greenhouse in conditions that can be demanding, including working in hot GA summer weather.

Responsibilities also include bench work in the laboratory, such as DNA extraction, PCR, allozymes and microsatellite DNA genotyping, and measuring morphological and life history traits of plants. Candidates are expected to have some basic knowledge on laboratory techniques such as PCR and DNA extraction. Other duties include: overseeing day-to-day management of the laboratory including the purchasing of supplies and equipment; insuring proper operation and maintenance of laboratory equipment; entering and managing electronic data files; working with undergraduate research assistants; maintaining greenhouse plants, and training of student workers. The position is ideal for a highly motivated person interested in gaining field and laboratory skills prior to starting graduate school or other work in the life sciences.

Requirements for the position are a bachelor's degree in biology, plant biology, ecology, evolution, or a related field as well as basic computer skills. The ideal candidate has a strong work ethic, positive attitude, excellent communication and organization skills, and the desire to acquire new field and laboratory research skills. Research experience in plants and an enthusiasm for field work will be advantageous.

To apply, please send a CV, a letter describing research background and interests and names and contact information of two references to Shu-Mei Chang, chang@plantbio.uga.edu. Applications will be reviewed until position is filled. Salary is commensurate with experience and includes benefits.

chang@plantbio.uga.edu

## UGroningen FieldAssist ShorebirdEvolution

\*SHOREBIRDS FIELD ASSISTANT, The Netherlands\*: Volunteers are needed \*from 15 March to 15 May 2010\* for an ongoing capture-recapture program on the Ruffs, \*Philomachus pugnax. \*The project is under the supervision of Prof. Dr. Theunis Piersma, head of the Animal Ecology Group of the University of Groningen. The fieldwork consists in the monitoring colour-banded birds in Southwest Friesland, a characteristic Dutch meadow area along the shore of Lake IJsselmeer in the north of The Netherlands. We collect data on the timing of migration, habitat use, phenotype characteristics, feeding and reproductive behaviour of the birds; but you will also assist with the banding of the birds, blood sampling, and data entry.

Volunteers and students involved will live together. Applicants need to have good social skills, a driver licence, experience with handling birds and colour-ring reading is preferred. Good working knowledge of English is required but command of Dutch or Frisian is not necessary ;-). We provide housing and field equipment. Volunteers must pay own airfare and living expenses (3-4 Euro per day). However a refund of traveling costs might be possible (depending on pending grant applications).

\*TO APPLY:\* Please send a resume/CV, a cover letter addressing any relevant experience, time available and one reference with e-mail address to: (Applications will be considered until all positions are filled)\* \*

\*Lucie Schmaltz\* [l.schmaltz@rug.nl]

\*Roos Kentie \*[r.kentie@rug.nl]

Animal Ecology Group, Center for Ecological and Evolutionary Studies, University of Groningen, PO Box 14, 9750 AA Haren, The Netherlands.

\* \*

For further info see: http://www.rug.nl/biologie/onderzoek/onderzoekgroepen/dieroecologie/onderzoek/researchstudies/migratimmune Lucie SCHMALTZ <lucie.schmaltz@gmail.com>

## ously worked with Drosophila, and managed large scientific projects.

The position is open and review of applications will begin immediately and continue until the position is filled. Informal inquires are welcome and can be directed to Stuart Macdonald (sjmac@ku.edu). To apply, complete an online application at https://jobs.ku.edu (position number 00067203). Attach a cover letter (describing your interest in the position and any relevant expertise), a full CV, and complete contact information for 3 referees. EO/AA Employer.

Dr. Stuart J. Macdonald Department of Molecular Biosciences 1030 Haworth Hall 1200 Sunnyside Avenue University of Kansas Lawrence KS 66045

office: 785-864-5362 lab: 785-864-5777 fax: 785-864-5321 email: sjmac@ku.edu web: http://web.ku.edu/sjmac/ sjmac@ku.edu sjmac@ku.edu

# ULeicester EvolutionOfBehaviour

## UKansas ResTech Drosophila

An NIH-funded Research Technician position is available in Stuart Macdonald's lab in the Department of Molecular Biosciences at the University of Kansas. The Macdonald lab explores the genetic basis of complex phenotypic variation within and between species using Drosophila as a model system. We seek an enthusiastic individual to supervise and carry out large-scale genetics/genomics projects, and to oversee various lab activities. The responsibilities of the technician will include, but are not limited to, maintaining and using a large panel of Drosophila strains, helping with large quantitative genetic experiments, and carrying out molecular assays (PCR, genotyping, sequencing, gene expression analyses). The successful candidate should be motivated, organized, and careful, and should have excellent oral and written communication skills. Salary will be commensurate with experience and will include benefits.

Required qualifications are a Bachelors degree in biology or a related field, demonstrable experience conducting research in a (broadly- defined) genetics or molecular biology laboratory, and strong written communication skills as evidenced by the application materials. Preference will be given to candidates with significant experience in the laboratory (including troubleshooting and optimizing protocols), and those who have previLecturer in Behavioural Biology College of Medicine, Biological Sciences & Psychiatry University of Leicester - Department of Biology Salary Grade 8 - £35,469 to £43,622 p.a.

Available immediately

#### Ref: MBP00103

The Department of Biology, University of Leicester is seeking a Lecturer with research interests in the genetic basis of behaviour. The successful candidate will have an excellent track record of research and will be using molecular methods to establish the genetic basis of fitness enhancing behaviours in a model species. The new lecturer will be expected to develop an active externally funded research programme and will be expected also to establish research links with a new lecturer to be appointed in the School of Psychology. The Psychologist will be working on aspects of human behaviour related to the interests of the new appointment in Biology. The post holder will contribute to and be supported by the cross-departmental research themes of Neuroscience and Behaviour and Genomic Science that have recently been established within the new College of Medicine, Biological Sciences and Psychology. The new lecturer will be expected to contribute to the teaching of evolutionary biology as part of a first year module and to a second year module in behavioural ecology. Once established, the new lecturer will be encouraged

to develop or contribute to third year modules in their special area of interest.

For further information and to apply on-line, please visit our website: <a href="http://www2.le.ac.uk/offices/personnel">http://www2.le.ac.uk/offices/personnel</a> Closing Date: 20 November 2009

Dr. Eamonn Mallon Lecturer Department of Biology University of Leicester 01162523488

"Mallon, Dr E.B." <ebm3@leicester.ac.uk>

**ULeipzig LabTech** 

The Faculty of Biological Science, Pharmacy and Psychology, Institute of Biology II, Professorship of Behavioral Ecology is seeking for a

Technical Assistant Salary: Entgeltgruppe 6 TV-L, vacant from 1 January 2010 full-time, permanent, including social benefits

Job description:

- Administration of the genetic laboratory (to be established) - Archiving of DNA-samples of free-ranging primates - DNA-extractions and genotyping of these samples - Calculating likelihoods of paternity using established software - Optimizing paternity analysis protocol for other species - Training of students in genetic methods

Job requirements:

- Degree as technical assistant or biological laboratory technician, respectively, with at least one year of lab work experience - Knowledge in PCR Optimization -Experience with Software (Word, Excel, Online Searching) - Familiarity with database management - high motivation and very good organization skills - Ability to work independently and within a team - Need to speak English fluently - Furthermore skills needed, but not required: previous experience with microsatellites typing, Training in established methods of paternity analysis, Familiarity with automated DNA fragment analysis system (such as ABI Genetic Analyser)

Information about our work on: http://www.eva.mpg.de/pks/ Please send applications by Nov 21st 2009 to:

Universität Leipzig Dekan der Fakultät für Biowissenschaften, Pharmazie und Psychologie Herrn Prof. Dr. Matthias Müller Brüderstraße 32 04103 Leipzig Germany Severely disabled persons are encouraged to apply and will be given preference in the case of equally suitability.

> ULouvain AssistantMScLevel ButterflyEvolution

#### JOB ANNOUNCEMENT:

A full-time assistant position (Msc level) is available for one year starting Jan 2010 in the laboratory of Caroline Nieberding in the Biodiversity research Centre at the University of Louvain in Belgium (UCL, universit Catholique de Louvain, http://www.uclouvain.be/en-65114.html). The general research interests of the lab include the understanding of which evolutionary and ecological factors influence the olfactive communication in butterflies, using the model species Bicyclus anynana (http://www.uclouvain.be/en-274524.html).

The position is ideal for a highly motivated person interested in gaining skills in chemical ecology prior to starting a graduate school in evolutionary biology: this position can lead to a four-year PhD position at UCL. The ideal candidate has a strong work ethic, positive attitude, excellent organization skills and the will for gaining research experience with the aim of preparing a PhD.

The position will necessitate the rearing of large numbers of B. anynana butterflies in lab-controlled conditions, the analysis of pheromone production, morphological and life history traits of the butterflies, field-like behavioural experiments with the butterflies and statistical analyses of the results. Responsibilities also include the development of a new methodology for pheromone analysis in collaboration with Prof. G. Lognays lab in Gembloux university. Candidates are expected to have basic knowledge on insect rearing, statistical analyses, and chemical ecology such as use of a gas chromatograph. Other duties include: (i) the ability to communicate in English because the research will be performed in collaboration with international teams including Paul Brakefields lab in Leiden univ. and because the BDIV research centre hosts a growing number of international PhD students and postdocs, and (ii) availability for helping with the rearing of the butterflies in case our technician needs help. Administrative requirement for the position is a Masters degree in biology. Salary is generous and covers all legal protections including health insurance.

To apply, please send a CV, a letter describing research background and interests and names and contact information of two references to Caroline Nieberding, caroline.nieberding@uclouvain.be. Applications will be reviewed from December 10th, until position is filled.

Caroline Nieberding Evolutionary Biology Group BDIV Research Centre Universit catholique de Louvain Carnoy building, office b112 Croix du Sud, 4-5 1348 Louvain-la-Neuve Belgium phone: +32 (0)10 47 34 88

Parcel delivery at the secretary's office Brigitte Ferauge office b193 phone: +32 (0)10 47 34 98

Responsibilites: You will take responsibility for the generation of microsatellite and sequence data and for the analysis of these data sets using a wide range of evolutionary genetics approaches including the use of landscape genetics.

Deadline: Applications should be returned by 9 December 2009. Further particulars and information on how to apply can be found at http:/-/www.manchester.ac.uk/aboutus/jobs/research/-

vacancy/index.htm?ref=3D167421 Informal enquiries may be addressed to: Dr. Cathy Walton, email: catherine.walton@manchester.ac.uk or Tel: +44 (0) 161 275 1533.

 $\label{eq:CarolineNieberding@uclouvain.be>Catherine.Walton@manchester.ac.uk \\ ine.Walton@manchester.ac.uk \\ \end{tabular}$ 

## UManchester ResAssoc MalariaVectorGenomics

We are seeking to hire a research associate with a PhD to work on a Wellcome Trust funded project for up to three years. Salary will be £28,829 - £35,469 per annum depending upon experience. You will join the research active Computational Evolutionary Biology Group at the University of Manchester.

Project Title: Genomic and Geographical Barriers to Gene Flow in a Major Malaria Vector in Myanmar and northeast India

Project Background: The mosquito species, Anopheles baimaii, is a major malaria vector found in the forests of Myanmar and northeast India. Information on rates of contemporary gene flow and geographic and genomic barriers to gene flow in An. baimaii is essential for both conventional and novel malaria control strategies. As An. baimaii can also serve as an indicator species for forest biodiversity, this study can also inform of us of the processes generating forest biodiversity in this region and how such biodiversity may be conserved in the long term. This study will identify landscape features that form geographical barriers to gene flow by combining microsatellite and landscape data in landscape genetics analyses. Using microsatellite and sequence data inside and outside of chromosomal inversions we will also determine the role of chromosomal inversions as genomic barriers to gene flow. The UK researcher will work as part of a team including researchers from medical research institutes in Myanmar and northeast India.

## UMelbourne Lecturer PlantSystematicsEvolution

LECTURER IN PLANT SYSTEMATIC & EVOLU-TIONARY BIOLOGY

The University of Melbourne, Australia

Position no.: 0022363

Employment type: Full-time Continuing

Campus: Parkville

School of Botany, Faculty of Science

Salary: \$73,863 - \$87,710 p.a. plus employer superannuation contributions of 17%

The School of Botany is seeking an outstanding plant scientist at Level B with experience in the area of plant systematic and evolutionary biology. You will establish a strong independent research program that will complement one or more of the current research groups within the School. The School provides an outstanding environment for creative multi-disciplinary research, including state-of-the-art-technologies. You must have postdoctoral research experience, especially in applying molecular techniques to systematic botany, a strong record of publications in international journals, and evidence of ability to attract research and/or fellowship funding. You should also have demonstrated potential and commitment to teaching and knowledge transfer, in line with the University's strategic plan.

This position is available from mid 2010.

Close date: 4 December 2009

Application information is available on http://www.hr.unimelb.edu.au/careers/. Search for position number 0022363.

edwardjn@unimelb.edu.au edwardjn@unimelb.edu.au

### **UPadova Bioinformatics**

UMichigan ComputationalEvolBiol

The application deadline for this previously advertised position is approaching...

Computational Evolutionary Biology Assistant Professor University of Michigan

The Department of Ecology and Evolutionary Biology (EEB) at the University of Michigan invites applications for a tenure-track assistant professor position in computational evolutionary biology. This position is part of a coordinated effort to enhance existing strengths in computational sciences across multiple departments. We seek outstanding individuals with primary research and teaching interests in any area of computational evolutionary biology, including, for example, molecular evolution, evolutionary genomics, evolutionary systems biology, population and quantitative genetics, phylogenetics and phylogeography, and evolutionary theory. Computational biologists with or without an empirical laboratory component to their research programs are encouraged to apply. Opportunities also exist for using the large collections of the Museum of Zoology and Herbarium. For further information about EEB, please see http://www.eeb.lsa.umich.edu. To apply, please email cebsearch@umich.edu a single PDF file that includes a complete curriculum vitae, a statement of current and future research plans, a statement of teaching philosophy and experience, evidence of teaching excellence, and copies of publications. Please also arrange to have three letters of recommendation sent directly to the above email address. Review of applications will begin on November 15, 2009. Women and minorities are encouraged to apply, and the University is supportive of the needs of dual career couples. The University of Michigan is an equal opportunity/affirmative action employer.

Bioinformatics job at the University of Padova. Italy

I am currently looking for an outstanding student/research assistant with solid bioinformatics skills, to be involved in our research program on the ecological genomics and evolution of the Colorado potato beetle (Leptinotarsa decemlineata). The project is funded by the University of Padova. The job focus will be to analyses the resulting sequences of a transcriptome sequencing project of the Colorado potato beetle.

The successful candidate will have a strong background in bioinformatics or computer science, fluency in a major scripting language and experience in software development. Some background in biology is desirable. Candidates should be highly motivated and have the ability to work independently.

The grant is available for one year starting from early January 2010 (the starting period is not negotiable). Salary will be 14400 per year (about 1020 net salary per month).

The University of Padova boasts excellent facilities for studying and recreation. Padova is a vibrant town offering many recreational activities and a large international community. Padova is located at 45 min by train from Venice, 2 hours from Florence, 4 hours from Rome and about 2 hours from the Dolomites.

If you are interested to apply, please send, by 1.12.2009, a single PDF file to alessandro.grapputo@unipd.it <mailto:alessandro.grapputo@unipd.it> containing: a detailed CV (with publication list if applicable); a short statement of research interests, mentioning research topics of master/diploma theses (not exceeding two pages); one reference.

– Alessandro Grapputo PhD Assistant Professor of Evolutionary Biology Department of Biology University of Padova Via U. Bassi 58/B 35121 Padova Italy

Tel +39 049 827 6250 Fax +39 049 827 6209 Email alessandro.grapputo@unipd.it

jianzhi@umich.edu jianzhi@umich.edu

 $alessandro\ grapputo\ < alessandro.grapputo@unipd.it >$ 

## USaskatchewan EvolutionaryGenetics

Preference will be given to candidate that focuses on evolution (see: Preference will be given to a candidate whose research addresses the role of epigenetics in the heritability of complex traits or focuses on the interface of developmental genetics and evolution, but all qualified applicants are encouraged to apply.)

A Tenure Track Position in Genetics at the Assistant or Associate Professor level, University of Saskatchewan, Department of Biology. DEADLINE:Jan 31, 2009. See web page: http://artsandscience.usask.ca/college/employment/pdf/2009/0911\_genetics.pdf Joan Virgl <joan.virgl@usask.ca>

## USouthernCalifornia EvolutionaryGenomics

\*Faculty Position in Molecular or Evolutionary Genomics\*.

The Molecular & Computational Biology Program at the University of Southern California invites applications for a tenure-track Assistant Professor in Molecular or Evolutionary Genomics. We seek an innovative, productive scientist using cell and molecular biology approaches, evolutionary principles, or computational tools to address basic questions at a genomic level. We especially welcome applicants working at intersection of these disciplines.

For additional information please visit our website: \* http://college.usc.edu/bisc/people/jobsearch.cfm\*< http://college.usc.edu/bisc/people/jobsearch.cfm >

Review of applications will begin immediately. Please send a curriculum vitae, a statement of research objectives, and three letters of recommendation to: \*msearch@usc.edu\* <msearch@usc.edu>or, if necessary, Eleni Yokas, Search Committee, Department of Biological Sciences, RRI201, University of Southern California, Los Angeles, CA 90089-2910.

\*USC strongly values diversity and is committed to

equal opportunity in employment. Women and men, and members of all racial and ethnic groups, are encouraged to apply.\*

Julia Saltz <jbsaltz@ucdavis.edu>

## UWisconsin LaCrosse EvolutionaryBiology

Organismal Biologist, Assistant Professor, Tenure Track, Academic Year 100%

The Department of Biology at the University of Wisconsin-La Crosse is expanding and invites applications for a new academic year, tenure-track position at the level of assistant professor. We seek an organismal biologist who will participate in teaching our biology core curriculum including organismal biology, and courses in her/his area of expertise. Training in invertebrate zoology, or seedless plants/algae, is preferred, but individuals with other organismal biology specialties are encouraged to apply. Our department values diversity in its faculty, staff, and students. We seek a colleague who shares our department's commitment to diversity and who will be a dedicated teacher, active scholar, and effective mentor for students with diverse backgrounds, preparation, and career goals. UW-L is nationally renowned as a comprehensive university with demonstrated excellence in undergraduate and graduate education and research. Coupled with the beautiful surroundings of the region, UW-L offers a stellar environment for professional and personal achievement. A Ph.D. in a biological science is required, and previous teaching experience is desirable. Successful candidates will be expected to develop an externally funded research program and direct undergraduate and graduate (MS) research. Academic year salary is competitive and commensurate with experience. Start date is August 30, 2010. All applications must be submitted electronically at https://employment.uwlax.edu. Applications must include a cover letter, curriculum vitae, statements of teaching philosophy and research interests, graduate and undergraduate transcripts, and the names and contact information of three references. Applications completed by January 15, 2010 will be given first priority, but the review process will continue until the position is filled. The University of Wisconsin-La Crosse is an AAEOE employer. If you have a special need/accommodation to aid your participation in our hiring process, please contact David

Howard (howard.davi@uwlax.edu) to make appropriate arrangements. Employment will require a criminal background check. A pending criminal charge or conviction will not necessarily disqualify an applicant. In compliance with the Wisconsin Fair Employment Act, UW-La Crosse does not discriminate on the basis of arrest or conviction record.

Kathryn E. Perez, Ph.D. Department of Biology University of Wisconsin at La Crosse 1725 State Street La Crosse, WI 54601 Office (Room 3009): 608-785-6998 Laboratory (Room 323): 608-785-8257 http://www.uwlax.edu/biology/faculty/perez/

### UWisconsin SpringSemesterLecturer

Dear Colleagues,

The following is an advertisement for a lecturer position that begins immediately Spring Semester 2010 in the Department of Zoology. This position is for a sabbatical replacement. If interested, please contact Carol Lee (carollee@wisc.edu) or Nazan Gillie (atilla@wisc.edu).

This course is fun to teach as the students are typically seniors who are quite engaged. Many of the students in this class pursue graduate degrees. The laboratory portion of the course is especially dynamic as the students have room to be creative and design independent projects. Some of the students have been published results from this course.

Lecturer Position, Spring Semester 2010

Description: -Co-teach two related courses: Comparative and Evolutionary Physiology (Zoo 611, 3 credits) and Comparative Physiology Laboratory (Zoo 612, 2 credits)

-Course focuses on physiological and evolutionary adaptations to environmental challenges. The course covers topics such as physiological adaptation to temperature (e.g. heat shock proteins, antifreeze proteins in antarctic fish), salinity (e.g. ATPase evolution), high altitude (e.g. amino acid substitutions in hemoglobin), light (e.g. melanin synthesis, opsin evolution, spectral tuning), etc.

Qualifications: -Ph.D. focused on one or more of the following areas: Physiology, Evolution, Genetics, Invertebrate Zoology, Vertebrate Zoology, or a related area. -Those without Ph.D.'s (but with Master's degrees or dissertator status) will be considered if they have a strong background in Physiology and/or Evolution

-Some teaching experience in Physiology, Evolution, Genetics, Zoology, or related courses. -A strong background in Statistics is desirable (for the laboratory portion).

Responsibilities: -Lecture (Zoo 611): Deliver half of the lectures (~15 lectures). Write and administer exams.

-Lab (Zoo 612): Assist students with independent projects. This includes helping students with experimental design, statistical analysis of experimental data, oral presentations, and writing of research papers. There are approximately 24 students in the lab course.

Carol Eunmi Lee, Ph.D. Associate Professor Center of Rapid Evolution (CORE) 430 Lincoln Drive, Birge Hall University of Wisconsin Madison, WI 53706 carollee@wisc.edu

https://mywebspace.wisc.edu/carollee/web/Lee/-Lee.html carollee@wisc.edu

## Vienna PopulationGenetics GroupLeader

Group Leader Position (Population Genetics, Genomics and Evolution)

Gregor Mendel Institute, Vienna, Austria

The Gregor Mendel Institute of Molecular Plant Biology (GMI), founded by the Austrian Academy of Sciences in 2000, is a leading institute in the field of plant molecular biology located at the prestigious Vienna Biocenter Campus. Current research topics include population genetics, epigenetics, chromosome biology, developmental biology and plant stress signal transduction. For more information, see website: www.gmi.oeaw.ac.at The research topic of the new Group Leader should be in the broad field of plant genomics, systems biology, or population genetics, preferably with a connection to evolution. Side projects involving organisms other than plants are welcome.

The GMI offers internationally competitive packages, including substantial institutional funding and access to state-of-the-art core facilities. The initial contract will be for 5 years (extension is subject to review).

Please send your application, including a curriculum

vitae, a description of your proposed research, and contact details for three referees to Christiane Haffner (christiane.haffner@gmi.oeaw.ac.at).

Review of applications will begin on 1 December 2009. Informal inquiries can be directed to Dr. Magnus Nordborg (magnus.nordborg@gmi.oeaw.ac.at).

"Siomos, Maria" <maria.siomos@gmi.oeaw.ac.at>

#### VillanovaU EndowedChairGenetics

The Dennis M. Cook Endowed Gregor Mendel Chair in Genetics

http://www.villanova.edu/artsci/biology/jobs/-

genetics\_chair/ Villanova University's College of Liberal Arts and Sciences honors its connection to Gregor Mendel by establishing the Dennis M. Cook Endowed Gregor Mendel Chair in Genetics. Mendel conducted his classic experiments with the garden pea while a member of the Augustinian abbey in Brünn, Moravia (now Brno, the Czech Republic). There. Mendel lived in a vibrant community of scholars with diverse interests across the sciences, social sciences, arts, and humanities. Mendel's work not only with peas, but with hawkweeds, bees, and astronomical observations, coupled with his fascination with the newly emerging fields of probability theory and combinatorial mathematics, serve as an example of interdisciplinarity that Villanova hopes to engender in its students.

We seek a nationally recognized teacher-scholarresearcher who will contribute to the Augustinian foundation of Villanova through the development and implementation of an ethical and socially responsible program that includes interaction with and involvement of undergraduate and graduate students in both teaching and research. Recognizing the broad brush of genetics in the 21st century, the Chair may focus on classical inheritance, functional genomics, gene expression, bioinformatics, evolutionary genetics, or other areas that integrate genes and/or genomic material into the research program. The Chair will be actively involved in service to the College and University, as well as to the scientific profession. The term of the Endowed Chair is five years and is renewable.

The Chair will: \* Develop and maintain a productive, externally funded research program that involves the study of genetics, genomics, and/or genes. \* Develop courses (for graduate, undergraduate, and/or non-science students) and programs that focus on the genetics, genomics and/or genes, as well as seminar courses that address social, legal, and ethical considerations at the interface of genetics and society. \* Participate in the development of long-term plans of the College of Liberal Arts and Sciences and of the University as they relate to ongoing efforts to ensure excellence in undergraduate education in the sciences within the context of a liberal arts education. \* Work with faculty colleagues within the University to seek external funding for new and creative initiatives in both education and scientific research that foster the personal and professional development of Villanova undergraduate science students. \* Enhance the national reputation of the University and College through contributions to instruction, research, and community service that promote the personal development of undergraduate students in the sciences in a way that fosters critical thinking and problem solving, within a context of a liberal arts education, so that students are destined to become future leaders that contribute to the overall betterment of society at large.

Applicants must apply online athttps://jobs.villanova.edu. Applications are to include a current and complete curriculum vitae and a cover letter describing a proposed program of teaching, research, and service that addresses the expectations for the position described above. Applicants should also provide the names and contact information for four references. Appointment is expected to be at the Associate Professor or Professor rank, with a starting date of August 2010 or January 2011. Review of applications will begin on 15 January 2010; the search will remain open until the position is filled.

Questions may be addressed to: Dr. R. Kelman Wieder, Associate Dean for Sciences and Search Committee Chair, Email: Kelman.Wieder@villanova.edu; Ph.: 610-519-4856.

Villanova is a Catholic university sponsored by the Augustinian order. An AA/EEO employer, Villanova seeks a diverse faculty committed to scholarship, service, and especially teaching, who understand, respect, and can contribute to the University's mission and values.

Todd Jackman Associate Professor Villanova University Office: 610-519-5502 Lab: 610-519-5503 http://todd.jackman.villanova.edu todd.jackman@villanova.edu

todd.jackman@villanova.edu todd.jackman@villanova.edu

## Zurich TheoreticalEvolutionaryEcosystems

The application deadline for our tenure track research group leader in Theoretical Evolutionary Ecosystems Ecology has been extended for one week until Monday, November 9.

Eawag is the Swiss Federal Institute of Aquatic Science and Technology, a Swiss-based and internationally operating aquatic research institute within the ETH domain.

Our Fish Ecology & Evolution Department located in Kastanienbaum near Lucerne has a job opening for a

Research group leader (Tenure Track) in Theoretical Evolutionary Ecosystem Ecology

Suitable candidates should have an excellent research record in theoretical ecology, post-doctoral research experience and are ready to apply for external research funding. We are looking for candidates who are interested in how eco-evolutionary dynamics shape the emergence, functioning and future of ecosystems.

The ideal candidate will thrive on the unique opportunities for collaboration with the diverse research groups in the Eawag Center for Ecology, Evolution & Biogeochemistry (CEEB) and at Eawag in general. These diverse groups investigate physical and chemical ecosystems processes, biogeochemistry, food web ecology, community ecology, evolutionary ecology and ecological genetics.

The Group Leader is expected to:

\* Establish an independent and collaborative research group dedicated to the investigation of eco-evolutionary dynamics at the ecosystem level \* Collaborate with empirical research groups at CEEB \* Supervise PhD and Masters students \* Contribute to Eawag's mandate in teaching and expert consulting

The Department of Fish Ecology and Evolution houses 5 research groups in diverse areas of ecology, evolution and conservation. It is closely affiliated with the Institute of Ecology & Evolution, University of Bern (Prof. Ole Seehausen), and collaborates with other Eawag departments, other groups at the Institute of Ecology & Evolution, groups at the ETH-Zurich, and internationally. As a top research institute, Eawag provides excellent support for high-quality research and a stimulating research environment in close proximity to the University of Bern and the ETH-Zurich. Eawag has world-class research infrastructure and provides excellent support for developing research in evolutionary biology, experimental ecology and ecosystem research.

Eawag's Center for Ecology, Evolution & Biogeochemistry aims to develop a strong nucleus of research groups integrating evolutionary biology with ecosystems science by linking evolutionary processes, studied at population and community level, to the structure and functioning of aquatic ecosystems.

The application deadline is 31.10.2009 with the earliest possible start date of 1.3.2010. The working language in the department and at CEEB is English. Please send a CV and application letter (including your research interests and the names and contact information for 3 references) as a single PDF file to: Eawag, Sandra Isenring, Human Resources, Ueberlandstrasse 133, CH-8600 Duebendorf, Switzerland or by email to recruiting@eawag.ch. Women are especially encouraged to apply. Visit www.eawag.ch for more information about Eawag and http://www.eawag.ch/organisation/abteilungen/fishec/index\_EN for more information about our department.

For questions about the position email Prof. Ole Seehausen (ole.seehausen@eawag.ch).

Ole.Seehausen@eawag.ch Ole.Seehausen@eawag.ch

AFLP background noise
Allele dropout microsats
AlleleFreq Fst answers
AnimalGenetics paper70
Argentian Maps71
Argentian Maps answers
BarcodeOfLife Web271
Bateson symposia72
Beckman CEQ8000 forsale72
Bird plumage study volunteers73
Chironomid samples73
Darwin Tunes
Decommissioning Drosophila species stocks $\ldots \ldots .74$
DIY genome walking74
EntoReview paper
Evolution Meetings Survey74
Freshwater Fish crustace an samples $\ldots \ldots .75$
Genotyper Windows

### AFLP background noise

#### Dear all,

Maybe these are very elementary questions for this list, but I am beginning with AFLP analysis and I have some doubts (probably elementary ones as I said)

- Which are the main causes of background noise and how to correct it? - May the dye colour influence the magnitude of the background noise? - How can protein / phenol contamination of the extracted DNA affect AFLP quality? - Is there any problem to overlay multiple primers with different dye labels? May peaks in one dye interfere with detection of other dyes?

Any references you could advice me to get into this subject and clarify my doubts?

Thanks.

BM

anidras\_ayu@yahoo.com

### Allele dropout microsats

I have a microsatellite amplification question I'm hoping you can help me with. My apologies if this has come up on the list before; I scanned the archive without success, but may have missed something.

The question: is there anything published on the frequency of allele dropout when using touchdown programs to amplify microsatellites?

Years ago, I tested some microsats (for crabs, I believe) with a touchdown program and with a range of single-annealing temp programs. When I ran the PCRs out on a BaseStation, it was obvious that in a significant number of instances the touchdown program resulted in homozygotes, while the single-temp programs showed heterozygotes. It appeared that in heterozygotes, sometimes the smaller-length alleles were being preferentially amplified with the touchdown program. and the larger alleles were dropping out. Taking this as a cautionary tale, I've always been careful to run microsats with optimized single-temp programs. Other than that, I never really followed up on it. I note now that it is not uncommon to see papers that use touchdown PCR to amplify microsats, and am curious if a) there is anything published on the matter, and b) anyone else has had noticed dropout (or not!) in program comparisons.

A quick search didn't turn up anything in the lit, so I was hoping a few of you could point me in the right direction. Of course, I'll post a follow-up e-mail listing people's responses.

Thank you!

Carolyn Tepolt (PhD student, Stanford University)

carolyn.tepolt@gmail.com

## AlleleFreq Fst answers

Here's a summary of replies I received from my query about how to calculate pairwise FSTs when you only have allelic frequency data not raw genotypes. For my purposes using the POPTREE2 program (#7) was the simplest solution.

1. from memory, Swofford and Selander's BIOSYS does this.

2. if you have sample size (the number of individuals from which your allele frequencies were obtained), I guess you can calculate pairwise FST by using directly the Weir&Cockerham(1984) method. In their equations, you need to know allele frequencies, sample size, number of populations plus a few other variables such the heterozygosities and mean allele frequencies that you should be able to compute from allele frequencies. I remember I had implemented a Matlab script to do it and it worked pretty well.

3. Attached please find a script that calculates pairwise Fst using simuPOP (simupop.sourceforge.net). My previous script used real genotype but I have modified it to assign random genotype using specified frequencies so you should be able to make it work for your data. You can check the simupop user's guide if you are interested in understanding how this script works. NOTE that the results will be slightly different each time you run this script because of the random initialization of genotype, and I do not know if this is the correct way to calculate Fst from frequency data. (Script is from Bo Peng bpeng@mdanderson.org)

4. Yes, you can use just the allele frequencies. In fact, all you need are allele frequencies because genotype frequencies are not used for Fst (only for Fis). But you are going to have to write an analysis program yourself. I have some simple spreadsheet simulators associated with my textbook that do it for Rst and Fst (see chapter 4). You could write a program in Matlab really easily. Alternatively, you could code up a mock data set with the correct allele frequencies but composed entirely of homozygotes.

5. There is a bit of software written by Richard Nichols called Nichols Fst. Unfortunately, you have to run each population pair separately. You can download it from his website. It's in the FstLikelihoods directory: http://webspace.qmul.ac.uk/ranichols/programs/ You might also consider using a measure of information theory to estimate pairwise difference, e.g. Shannon's index (see Sherwin et al 2006 Mol Ecol) and D (Jost 2008 Mol Ecol). Emerging studies seem to indicate that FST is not a reliable measure of differentiation.

6. I have used Arlequin for data from genotype frequencies and haplotype frequencies only but, it seems to me, that you could name the alleles consecutively from allele 1 of the first locus to the last allele (allele X) of the 6th locus and the pairwise comparison analyses between populations would work. I would be curious to know what works.

7. We have developed a computer program called POPTREE2 that can calculate the pairwise FST between populations from allele frequency data. It can be used through a Windows-interface easily. POPTREE2 is available at the following web-page. http://www.med.kagawa-u.ac.jp/~genomelb/-takezaki/poptree2/index.html 8. Why don't you calculate it by hand/using a spreadsheet or statistical package?

9. You've probably received an answer to your question already but my suggestion would be to fudge the appropriate input file using your allele frequency data. Fst's for msats are based on frequency and not genetic distance so you can assign an arbitrary fragment size to each allele. Obviously this would only work if you know which alleles are shared between the different populations. As an aside, another issue to consider is the impact of diversity on fixation indices. See Hedrick 2005, Meirmans 2006, and Jost 2009 for a description of the statistical issues and remedies associated with using fixation indices to estimate population differentiation.

Thanks for all the suggestions, Hilary

Dr Hilary Miller School of Biological Sciences Victoria University of Wellington PO Box 600, Wellington New Zealand Ph: +64 4 463 7432 Fax: +64 4 463 5331 email: hilary.miller@vuw.ac.nz

Hilary.Miller@vuw.ac.nz Hilary.Miller@vuw.ac.nz

#### AnimalGenetics paper

Dear Colleagues,

I am looking for the following paper which is cited in so many places but I couldn't find it in the mentioned

#### December 1, 2009 **EvolDir**

Vol and Issue, may I request you to help if any send a copy of it to me:

Paper tiltle: A novel polymorphism in the bovine insulin-like growth factor binding protein-3 (IGFBP3) gene.

Maciulla JH http://-<s.wanfangdata.com.cn/paper.aspx?f=detail&q=-%e4%bd%9c%e8%80%85%3a%22Maciulla+JH%22++DHDA3aNS701eQK >Zhang HM< http://s.wanfangdata.com.cn/paper.aspx?f=detail&q=-% e4% bd% 9c% e8% 80% 85% 3a% 22 Zhang + HM% 22 + + DB ID% 3a NSTL OK c.noaa.gov/paleo/softlib/-interfection of the second statement of the second s

>DeNise SK http://-<s.wanfangdata.com.cn/paper.aspx?f=detail&q=-% e4% bd% 9c% e8% 80% 85% 3a% 22 DeNise+SK% 22++DBI / D% 3a NST are in the last of the second state of t

Animal Genetics, 1997 Vol. 28, No.5, 1997

Regards

>

Nasrollah Pirany Assistant Professor University of Tabriz Faculty of Agriculture Dept. of Animal Science 29th Bahman Bolvard, East Azarbaiejan, Tabriz, Iran. Phone (Office):+98-411-3392060- Mobile:+98-9144177930 Fax: +98-411-3356004-3345332 Alternative Email: n\_pirani@tabrizu.ac.ir

Nasrollah Pirany <npirany@gmail.com>

#### **Argentian Maps**

## **Argentian Maps answers**

Many thanks to all of you whom answered my inquiry on how to produce a nice mapâBelow are the links to the websites of programs and tools that IAve received:

mappad.html GenGIS (http://kiwi.cs.dal.ca/-GenGIS) The GenGIS paper can be found at: http://genome.cshlp.org/content/19/10/1896 http:/-

http://www.diva-gis.org/download http://grass.itc.it/index.php http://www.esri.com/software/arcexplorer/download.html Hope it helps. Yours sincerely, Carolina

Carolina I. Miño, MSc. Visiting Doctoral Student at: The Ecological and Conservation Genomics Laboratory University of Bristish Columbia - Okanagan 3333 University Way Kelowna, BC, Canada V1V1V7 Phone: 1-250-807-9439

Home University: LaboratÃ<sup>3</sup>rio de Genética de Aves Departamento de GenÃ(c)tica e Evolução Universidade Federal de SA£o Carlos Rodovia Washington Luis km 235 SP-310 CEP: 13565-905 Monjolinho. SA£o Carlos, SP, Brazil. Phone number: +55 16 3351 8391 (Work) Fax: +55 16 3351 8377

Carolina Minio <carolinaianido@yahoo.com.ar>

Dear colleagues,

I am in the need of doing a topographic map of Argentineanpopulations' sample locations and can't find a suitable free software that can help me doing it...Wouldyouplease suggest one to me?

Thankyou very much, Sincerely,

Carolina I. Miño, MSc. Doctoral Student Laboratório de Genética de Aves Departamento de Genética e Evolução Universidade Federal de São Carlos Rodovia Washington Luis km 235 SP-310 CEP: 13565-905 Monjolinho. São Carlos, SP, Brazil. Phone number: +55 16 3351 8391 (Work) Fax: +55 16 3351 8377

Carolina Minio <carolinaianido@yahoo.com.ar>

## BarcodeOfLife Web2

The Consortium for the Barcode of Life (CBOL; www.barcoding.si.edu), incollaboration with the International Barcode of Life project (iBOL; www.ibolproject.org), is developing a range of new activities and capabilities that take advantage of Web 2.0 technology. Many of these will be unveiled at the Third International Barcode of Life Conference in Mexico City from 7-13 November 2009.

The Barcode of Life is on Twitter!

Tweeters, please follow us @barcodeoflife where we'll be sharing insights from the community and up-to-theminute announcements and happenings at the Mexico City conference. And if you plan on tweeting at the conference, please use the official conference hashtag: #barcode09. For those of you who don't tweet but would like to stay on top of what's happening at the conference, bookmark http:/-/feeds.barcodeoflife.net, where you can see barcoding twitter feeds and media coverage.

The future "Barcode of Life" central website

The rapid growth of DNA barcoding over the past five years has led to a proliferation of initiatives, acronyms and websites. This exuberant growth is a positive sign of the health of the barcoding enterprise but it can also be confusing. CBOL and iBOL are developing a new central website under the banner of "Barcode of Life" that will provide the community with clear information about and links to the organizations, initiatives, and projects that make up the Barcode of Life initiative. The preliminary design for this website will be unveiled at the Mexico City conference on computer monitors distributed outside the auditorium. Conference participants will be invited to submit their feedback on the design.

The Online Barcode of Life Community Network

Both iBOL and CBOL have been working to expand participation around the world in the Barcode of Life. The iBOL project leadership has asked CBOL to lead its Communication and Outreach Working Group, and CBOL has engaged Night Kitchen Interactive (NKI), a website and new media company, for this effort. Matthew Fisher, President of NKI, will be offering workshops during the Mexico City barcode conference on Monday, Tuesday and Wednesday, 9-11 November. Conference participants are invited to attend the workshop for a brief introduction to the Barcode of Life Community Network.

These workshops will take place at:

\* 11:00 to 12:00, Monday, 9 November: IB-UNAM Building B, Classroom 1(?) \* 4:00 to 5:00, Monday, 9 November: IB-UNAM Building B, Classroom 1(?) \* 1:00 to 2:00, Tuesday, 10 November: Mexican Academy of Sciences Auditorium A

Please come and give us your feedback on this exciting new opportunity to connect with your barcoding peers online!

David E. Schindel, Executive Secretary

Consortium for the Barcode of Life 202/633-0812; fax 202/633-2938; portable 202/557-1149 Email: SchindelD@si.edu CBOL WEBSITE: http://www.barcoding.si.edu Office and overnight delivery address:

National Museum of Natural History Room CE-119 10th & Constitution Avenue, NW Washington, DC 20560

Postal mailing address:

National Museum of Natural History Smithsonian Institution P.O. Box 37012, MRC-105 Washington, DC 20013-7012

schindeld@si.edu

#### **Bateson** symposia

Invitation to a Mediasite presentation: William Bateson's Contributions to Evolutionary Theory

http://avsleccap.uea.ac.uk/mediasite/Viewer/?peid=-8636067d92f54002ace1ea9f998ff06a The address, given at the Centenary Celebration of the John Innes Centre, Norwich (Sept. 2009) is based on a recent biography of William Bateson:

"Treasure Your Exceptions". The Science and Life of William Bateson (Springer, September 2008)

The book is summarized in a paper, an early version of which may be viewed at: http://rsnr.royalsocietypublishing.org/content/early/2009/-10/27/rsnr.2009.0045.short?rss=1 Reviews of the book are at: http://post.queensu.ca/~ forsdyke/book04 Donald Forsdyke, Department of Biochemistry, Queen's University, Kingston, Canada

forsdyke@queensu.ca forsdyke@queensu.ca

## Beckman CEQ8000 forsale

\*2 Beckman Coulter CEQ 8000 capillary DNA sequencing machines for sale\*

We purchased these 2 instruments in early 2004 and have been very satisfied with their performance over the years, but they are no longer needed since we have a 3rd Beckman CEQ 8000, which is sufficient for our day to day sequencing needs. Developed using Beckman Coulter's extensive experience in laboratory automation and leadership in capillary electrophoresis technology, the CEQ 8000 is a fully automated genetic analysis system. It can be used for DNA sequencing as well as fragment analysis (e.g., genotyping). This system automatically fills the capillary array with a patented linear polyacrylamide (LPA) gel, denatures and loads the sample, applies the voltage program, and analyzes the data. Software tools let you rapidly review data quality and even customize automated data assessment. With the CEQ 8000, you can perform virtually all-genetic analysis functions with one Gel, one Array and One Software Package.

2 units (complete with dedicated PCs, sofware and user manuals) are available at\* \$15,000 CAD each or best offer\*. Machines were well looked after and professionally serviced. Beckman Coulter maintenance and training is recommended.

If you are interested or have any further questions, please contact: Katrin Sommerfeld Archibald/Doolittle Labs Dalhousie University Dept. of Biochemistry & Molecular Biology Phone: (902) 494-3569 Email: ksommerf@dal.ca

#### Best, Katrin

- Katrin Sommerfeld W. Ford Doolittle Lab / John Archibald Lab Dalhousie University Dept. of Biochemistry & Molecular Biology 5850 College Street Halifax, NS, B3H 1X5, Canada

Phone: (902) 494-3569 Fax: (902) 494-1355 web site: http://doolittle.biochem.dal.ca/ http:/-/myweb.dal.ca/jmarchib/ Katrin Sommerfeld <ksommerf@dal.ca>

# Bird plumage study volunteers

I am conducting a study of the evolution of geographical patterns in avian plumage characteristics, and I am looking for volunteers to take a survey. Participants will rate the brightness and complexity of bird plumage for various images.

If you are able to volunteer to take this survey, please e-mail me at druryj@ucla.edu, and I will send you an e-mail with the URL to the survey and more information.

Thank you in advance,

Jonathan P. Drury Department of Ecology & Evolutionary Biology University of California, Los Angeles druryj@ucla.edu Jonathan Drury <druryj@ucla.edu>

#### Chironomid samples

Dear colleagues

We would be extremely interested in just a few samples of two chironomid species from northeastern North America for DNA analyses: Helipelopia cornuticaudata and H. pilicaudata. We can provide the material (eppendorfs and ethyl alcohol) and cover any related expenses. Please contact me (Bernard.angers@umontreal.ca) or Louise Cloutier (Louise.cloutier@umontreal.ca) for further information.

Many thanks in advance

Bernard Angers Associate professor Department of biological sciences Universite de Montreal

bernard.angers@umontreal.ca bernard.angers@umontreal.ca

#### Darwin Tunes

At Imperial College we are conducting an experiment to test the proposition that culture evolves in a Darwinian fashion. We have developed a web-based system called DarwinTunes in which a population of short computer-generated-tunes evolves by mutation, recombination and selection.

The selective force is the public. They listen to the songs, rate them, and so define their fitness. You can participate too! We started with a population of randomly generated loops and are currently at ~2000 generations.

To find out more go to

http://DarwinTunes.org log on, and be a selective force!

best

Armand Leroi

Armand M. Leroi Professor of Evolutionary Developmental Biology Division of Biology Silwood Park Campus Imperial College London SL5 7PY, UK "Leroi, Armand M" <a.leroi@imperial.ac.uk>

# Decommissioning Drosophila species stocks

The Drosophila Species Stock Center will be decommissioning 128 stocks of over 50 different species in order to make room for new stocks. After December 10, all 128 longer will be available as living collections, only as ethanol-preserved flies. The list of stocks to be decommissioned can be viewed on the stock center website:

https://stockcenter.ucsd.edu/info/welcome.php Anyone wishing to order living cultures of these stocks should do so by December 10.

Therese Ann Markow, Professor Amylin Chair in Life Sciences Section of Ecology Behavior and Evolution Division of Biological Sciences Muir Biology Building 2215 9500 Gilman Drive University of California at San Diego La Jolla, CA 92093-0116

Email: tmarkow at ucsd.edu Phone: (858) 246 0095 Laboratory: (858) 246 0402 FAX:(858) 534-7108

http://biology.ucsd.edu/labs/markow/ http:/-/stockcenter.ucsd.edu Therese Markow <tmarkow@ucsd.edu>

## DIY genome walking

Dear EvolDir members,

I have been successfully genome walking in a variety of plant species for years using the Clontech/BD Biosciences "GenomeWalker Universal" kit, however as the prices increase the more and more I think I would like to try a 'homemade' protocol. Especially considering that the kit essentially only contains restriction enzymes, T4 ligase and ds oligonucleotide adapters.

Has anyone got a protocol they would be happy to share? Ill be happy to post any responses (unless respondees dont want me to!).

Thanks in advance,

mark chapman mchapman@plantbio.uga.edu mchapman@plantbio.uga.edu

# **EntoReview paper**

Dear all,

I am looking for a PDF of the following paper:

Zerova, M.D. and Seryogina, L.Ya. 2009. A review of Palaearctic species of the Eurytoma cynipsea group (Hym., Eurytomidae) with a description of a new species from Iran. Entomological Review, Volume 89, Number 6 / September, 2009: 721-729

Thank you in advance, Hossein

Dr. H. LOTFALIZADEH Department of Insect Taxonomy Iranian Research Institute of Plant Protection Tehran, P. O. B. 19395-1454 IRAN Alternative email: hlotfalizadeh@gmail.com

Hossein Lotfalizadeh <hlotfalizadeh2001@yahoo.com>

# **Evolution Meetings Survey**

Dear Evol-Dir Members,

Have you attended the US Evolution meetings in the past? Do you plan to attend them in the future? If so, we'd like to get your input regarding childcare and MentorNet mentoring programs offered at the conference.

With funding from an Elsevier Foundation New Scholars Grant, on-site childcare and email-based Mentor-Net mentoring programs were offered for the first time at the Evolution 2009 conference in Moscow, ID, and will be offered at Evolution 2010 (Portland, OR) and Evolution 2011 (Norman, OK).

The survey will take about 5 minutes, and your responses are completely anonymous. Please click on the link below (or copy and paste into your internet browser) to complete the survey.

http://www.surveymonkey.com/s.aspx?sm=-L3HNx3lBIK8tw3qxWJD8ew\_3d\_3d Thanks for taking the time to help out!

Heidi Meudt & Leah Larkin

Heidi Meudt, PhD Museum of New Zealand Te Papa

Tongarewa, PO Box 467, Cable St, Wellington, New Zealand, P +64 4 381 7127, F +64 4 381 7070

School of Biological Sciences, Victoria University, 1-85 Kelburn Parade, Room 507, New Kirk Building, Wellington, New Zealand, P +64 4 463 5026, F +64 4 463 5331

www.victoria.ac.nz/sbs/staff\_research\_fellows/meudt-heidi/meudt-heidi.aspx

Heidi Meudt <HeidiM@tepapa.govt.nz>

#### FreshwaterFish crustacean samples

Dear Colleagues,

We are conducting a comparative phylogeographic study on multiple fresh/brackish-water taxa from SE Asia/Australia, and would like to maximise our sampling. If anyone has tissue samples (suitable for DNA work) from any of the following groups, please contact me: Fishes: Aplocheilus panchax, Dermogenys, Hemirhamphodon; Crustacea: Macrobrachium latidactylus, Caridina typus, Atyopsis.

Thanks in advance, Mark

Dr Mark de Bruyn MEFGL, ECW Building School of Biological Sciences Deiniol Road Bangor University Bangor, Gwynedd, LL57 2UW, UK

bss808@bangor.ac.uk

## **Genotyper Windows**

Dear evoldir members,

I am try to run Genotyper (version 3.7 NT) software in Windows xp, and windows vista. However, I always received an error message "Could not start the application because there is not enough memory". I know that Genotyper software was never tested on the Windows XP operating system, and that the error states that there is insufficient memory, but the fix is actually to reduce the amount of virtual memory on the computer:

(Go to Control Panel > System> Advanced tab> in the performance options pane, select settings> select advanced tab> in the virtual memory pane, select change > select de customize radio button> set initial size to 500> set maximum size to 700.)

This work in my old computer (Microsoft Windows XP, 3.21Ghz, 1Gb RAM) but not in the new one (Microsoft Windows XP, 2.33Ghz, 3.49Gb RAM), and never worked in the computers with Windows vista operating system.

Know anybody the way to run Genotyper software on Windows XP and/or Windows Vista?

Thank in advance,

Miguel Angel

Dr. Miguel Angel González Pérez Departamento de Biología Universidad de Las Palmas de Gran Canaria Campus Universitario de Tafira 35017 Las Palmas de Gran Canaria Canary Islands Spain Phone: (+34) 928 454 543 Fax: (+34) 928 452 922 email: mgonzalez@proyinves.ulpgc.es

can ariens is 750 @hot mail.com

IdeasEcolEvol

New promotional offer from Ideas in Ecology and Evolution: Manuscripts can now be submitted and reviewed with no submission fee required from authors.

Ideas in Ecology and Evolution is a new peer-reviewed, open-access journal published at Queen's University, welcoming submissions of forum-style papers involving new ideas and commentaries from all areas of study in ecology and evolution.

Visit the website at: http://library.queensu.ca/ojs/index.php/IEE Lonnie W. Aarssen Professor Dept. of Biology Queen's University Kingston, ON Canada, K7L 3N6

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email: aarssenl@queensu.ca web: http://biology.queensu.ca/%7Eaarssenl/ tel: 613-533-6133 fax: 613-533-6617

aarssenl@queensu.ca aarssenl@queensu.ca

## JHeredity Genome10K

Genome 10K: A Proposal to Obtain Whole-Genome Sequence for 10 000 Vertebrate Species

The completion of the human genome project has ushered in a new era of biological discovery. Rapid advances and reduced costs in sequencing technology are revolutionizing our ability to describe genetic diversity in natural and cultivated populations. To prepare for this new era of comparative genomics, the Genome 10K Project proposes genome sequencing for 10,000 representative vertebrate species. This proposal is described in the Invited Perspective, available free online, arising from the first meeting of the Genome 10K Community of Scientists.

agajoh@oregonstate.edu agajoh@oregonstate.edu

# LondonEvolutionNetwork AGM ChristmasSocial Dec3

Dear all,

The LERN year will be coming to a close at the end of the year 2009 and we would like to invite all members and potential new members to join us for our Annual General Meeting which will be followed by a Christmas Social.

LERN AGM & Christmas Social

December 3rd 2009, at 18:30

Anthropology Postgraduate Common Room

(Anthropology Department - 14 Taviton Street)

The event is free all are welcome!

Wine and mince pies will be served!

This will be a good opportunity to meet fellow LERN members and learn a bit more about LERN's activities.

We are currently looking for new LERN committee members as well as new LERN representatives for 2010, so if you think you would like to be involved in organizing LERN activities either as part of the committee or as a rep, or if you are simply curious about LERN in general and would like to meet other members join us on December 3rd.

Alternatively, if you know that you would like to be part of the next committee, vou email info@londonevolution.net can us at<mailto:info@londonevolution.net> to obtain more information on what this entails.

Opportunities to fill the following positions for 2010:

Treasurer (currently, Shakti Lamba)

Events Coordinator (currently, Gillian Pepper)

Secretary (currently, Anna Barros)

Webmaster (currently, Anna Barros)

Chair (currently, Michael DeBarra and Sandra Virgo)

Visit website http://londonevolution.net/ for information on how the event and how to get there.

We hope to see you there!

The LERN Committee

—

LERN: the London Evolutionary Research Network. E-mail info@londonevolution.net or visit http://londonevolution.net for events and further information. New members and suggestions for speakers are always welcome!

If you do not want to receive any more emails from LERN, http://londonevolution.net/mailinglist/?p=3Dunsubscribe&uid=-

3D8d9cce993952a0074a870e7af9e6d4c0 To update your preferences and to unsubscribe visit http://londonevolution.net/-

mailinglist/?p=3Dpreferences&uid=-

3D8d9cce993952a0074a870e7af9e6d4c0 – Powered by PHPlist, www.phplist.com –

Gillian Pepper MSc Student - Evolutionary Psychology Brunel University

Department of Psychology School of Social Sciences Brunel University Uxbridge UB8 3PH UK Mobile: 07951 295 751 Email: ht08ggp1@brunel.ac.uk Personal web page: http://www.scienceandsociety.info Science Policy UK Network: http://network.nature.com/groups/ukpolicy/forum/topics London Evolution Research Network: http://londonevolution.net/-Research and Media Network: http://researchandmedia.ning.com/profile/GillianPepper

 $ht08ggp1@brunel.ac.uk\ ht08ggp1@brunel.ac.uk$ 

### Microsatellite genotyping software

Dear all, I was wondering if there is such a thing as open source microsatellite genotyping software (similar to Sequencher) available? Could any recommendations also be supported by some sharing of experiences in user friendliness etc? Thanks! Peter

Peter.Hoebe@sac.ac.uk

Peter Hoebe <Peter.Hoebe@sac.ac.uk>

# Microsatellite software

Dear evoldir members,

I am looking for some kind of software that can identify, count and group individuals with the same microsatellite profile. Could someone indicate a software, specially one that can deal with large datasets? Thanks,

Sibelle

sibelletorres@gmail.com

#### Partial Mantel test in Arlequin

#### Hello,

I'm using partial Mantel tests to test for significance of the relationship between genetic distance, geographical distance, and habitat continuity among several arthropod populations. It's all relatively straightforward, except in several instances the % determination of Y by one of the X variables is a negative number. Any insights into why this might be would be greatly appreciated.

Sincerely, Stephanie

stephanie.kamel@gmail.com

## Paternity number of mates

Other: Multiple paternity and effective number of mates

Dear Evoldir members,

I apologize in advance for the long posting!

I am interested looking at how multiple paternity affects the maintainence of genetic diversity using empirical data. I have clutches from turtle nesting beaches in which I have genotyped offpsring. Using standard procedures for determining number of fathers, I have found which clutches had single and multiple sires. I wanted to compare the "actual" number of breeders (Nb)with the "effective" number of breeders (Neb). I define the actual number of breeders in a clutch or in multiple clutches, as the total number of fathers determined using parentage programs (ex GERUD) and I define effective number of breeders as "the number of breeding individuals inan idealized population that would show the same amount of dispersion of allele frequencies under random genetic driftor the same amount of inbreedingas the population under consideration (i.e. effective population size, but in my case refers only to the clutches sampled)." For one nesting beach sample (Clutches 0, mothers = 30, fathers = 35) the actual number of breeders was 65, but the effective number of breeders (estimated from the program LDNE) is 41.9 (95% confidence interval 33.5-52.1). When determined on a per clutch basis, the actual number of breeders per clutch is 2.17 and effective number per clutch is 1.4.

To address how multiple paternity affects the effective number of breeders, I compared the same values for clutches only with single paternity and those only with multiple paternity.

Single Paternity (Clutches = 26, mothers, fathers =2) the actual number of breeders was 52 (2 per clutch), but the effective number of breeders was 28.9 (1.1 per clutch)

Multiple Paternity (Clutches = 4, mothers = 4, fathers = 7) the actual number of breeders was 13 (3.25 per clutch), but the effective number of breeders was 10 (2.5 per clutch).

So from the data, first off it seems that effective number of breeders is less than 2 per clutch (when looking at all clutches or single paternity clutches). I would have expected at least 2 effective breeders per clutch, regardless of multiple paternity. Can anyonesuggest how I might account for this? I know that females on nesting beaches are philopatric, so might it be due to coancestry of nesting females? Or could it also be due to be due to high levels of relatedness between mother and father pairs or relatedness between fathers?

Secondly, it seems that single paternity clutches have an Neb that is 55% of Nb, and multiple paternity clutches have an Neb that is 77% of Nb. While I expected Neb would be less than Nb, I can't think of any reason other than relatedness between parents why Ne would be less. I don't think it is a general trend that multiple paternity clutches maintain an Neb closer to Nb, because at another nestingbeach Neb is 48% of Nb for multiple paternity clutches and Neb is 66% of Nb for single paternity clutches.

Any help or direction towards articles would be appreciated!

Sincerly, Claire Sheridan PhD candidate Drexel University

clairemarie63@yahoo.com

# **PopulationGenetics in Python**

Dear colleagues,

In case you are interesting in doing programming in Population Genetics using Python, the Biopython project includes a module to support basic methods.

We currently support calculation of several statistics and methods (exact tests for Hardy-Weinberg equilibrium, population differentiation, genotypic disequilibrium, F-statistics, null allele frequencies, allele sizebased statistics for microsatellites and much more), Coalescent simulation and selection detection via a Fstbased outlier method.

The design philosophy of the module is to leverage existing, widely-used and known population genetics applications. So, as an example, to calculate Fst we use Genepop. We provide a set of wrapper libraries to known applications.

We tried in as much as possible to construct easy to use interfaces, as an example, to calculate some F-statistics of a certain locus from a genepop file the code is as simple as: from Bio.PopGen.GenePop.EasyController import EasyController ctrl = EasyController(your\_file\_here) Fis, Fst, Fit, Qintra, Qinter = ctrl.get\_f\_stats(locus\_name\_here)

The most recent version of Biopython (1.52) is required for most of the functionality described above.

In case you have any issues (doubts, bugs, suggestions, etc), please don't hesitate to contact the biopython user mailing list at: biopython@biopython.org .

The starting point for the PopGen functionality is: http://www.biopython.org/wiki/PopGen where you will find documentation in wiki and tutorial form

Best Regards, Tiago Antao

tiagoantao@gmail.com

#### **Ross Crozier**

With sadness I inform you that eminent evolutionary biologist Professor Ross Crozier passed away on Thursday 12th November 2009. He will be sadly missed as a research scientist and mentor. The funeral will be held today in Townsville, Australia. Our most sincere condolences go to his wife Ching Crozier, their sons and extended family.

Dr Michelle Guzik The University of Adelaide michelle.guzik@adelaide.edu.au

Michelle Guzik <michelle.guzik@adelaide.edu.au> Michelle Guzik <michelle.guzik@adelaide.edu.au>

#### **RossCrozier reminiscence**

Ross Crozier (1943-2009) —

I did not know Ross well but we exchanged various friendly e-mails on molecular evolution over the years. We met at the Hennig Society meeting IX, Canberra, 1990. I was a PhD student, giving my first serious conference presentation. I told them that phylogenetic inference needed models of evolution, statistical consistency is important, and parsimony can be seen as likelihood under a simple model where the parameter values matter. It was very scary; Steve Farris, amongst others was in the audience. Luckily for me, my talk was right

#### December 1, 2009 EvolDir

before a coffee break and so most cladists were more interested in that than in attacking what they no doubt saw as a misguided PhD student. Ross made the effort to come up to me after my talk and introduce himself, and tell me he enjoyed my talk. It was \*exactly\* what I needed to hear - it doesn't matter if it was true or not - and I will remember him forever for that.

I still have my List of Participants from that meeting, annotated with various ticks for people I met/liked/really liked, and a very few asterisks for people who were "nice to me about my talk". Ross got multiple ticks and a large asterisk.

#### Nick Goldman

Nick Goldman tel: +44-(0)1223-492530 EMBL - European Bioinformatics Institute fax: +44-(0)1223-494468 Wellcome Trust Genome Campus, Hinxton, Cambridge CB10 1SD, UK

Nick Goldman <goldman@ebi.ac.uk>

#### Sequencher Mac for PC

#### Dear Colleagues

I would like to exchange a mac version of Sequencher version 4.9 for the PC equivalent.

The exchange would need to include the dongle and original software on CD.

Please reply to Jennifer.Ovenden@dpi.qld.gov.au

### Many thanks, Jenny

Dr. Jenny Ovenden Molecular Fisheries Laboratory http://www.dpi.qld.gov.au/cps/rde/xchg/dpi/hs.xsl/28\_6844\_ENA\_HTML.htm Queensland Primary Industries and Fisheries Department of Employment, Economic Development and Innovation http://www.dpi.qld.gov.au PO Box 6097, St Lucia QLD 4072 Australia Office +61 7 3346 6514 Mobile 0415 949 410 Adjunct Lecturer, University of Queensland Queensland celebrates its 150th anniversary in 2009. Check out what's on today at www.q150.qld.gov.au < http:/-/www.q150.qld.gov.au/ >

Jennifer.Ovenden@deedi.qld.gov.au nifer.Ovenden@deedi.qld.gov.au

# Software P2EMA MicrosatAnalysis

"Dear Evoldir members,

We have noticed some recent posting asking for an open source microsatellite genotyping software. We have recently developed a PERL pipeline for dealing with microsatellite data called P2EMA, and would like to make it open for anyone to try it and tell us how could it be improved.

P2EMA is a Perl/Tk graphical user interface (GUI) that facilitates several tasks when scoring microsatellites. It does so by implementing new subroutines in R and PERL and taking advantage of features provided by previously developed software such as PeakScanner, CREATE and AlleloBin. P2EMA allows running PeakScanner easily from the commandline, analysing markers from several multiplex groups simultaneously, manual bin definition through a new R script (Binator), direct bin definition through AlleloBin and file conversion through CREATE.

Please, do not hesitate to send us any comments on your experience with P2EMA and recommendations as how it could be improved. You can get the P2EMA pipeline and post your comments at the P2EMA project web-page:

http://sourceforge.net/projects/p2ema/ An application note has been submitted to Bioinformatics:

F Palero, F González-Candelas and M Pascual (submitted) P2EMA (Perl Pipeline for Easy Microsatellite Analysis) – a user-friendly package. Bioinformatics.

Thanks!

Ferran"

Jen-

FERRAN PALERO Evolutionary Genetics (Floor 1) Institute of Science and Technology Austria (IST Austria) Am Campus 1 A – 3400 Klosterneuburg Austria e-mail: fpalero@ist.ac.at phone: +43 (0)2243 9000 3004

"Mathematics knows no races or geographic boundaries; for mathematics, the cultural world is one country" - David Hilbert -

"...at this rate a man might as well go into a gravel-pit and count the pebbles and describe the colours. How odd it is that anyone should not see that all observation must be for or against some view if it is to be of any service!" - Charles Darwin -Ferran <fpalero@gmail.com>

#### **SSEAward Nominations**

# APPLICATIONS FOR THE 2010 THEODOSIUS DOBZHANSKY PRIZE

The Theodosius Dobzhansky Prize is awarded annually by the Society for the Study of Evolution to recognize the accomplishments and future promise of an outstanding young evolutionary biologist. The prize was established in memory of Professor Dobzhansky by his friends and colleagues, and reflects his lifelong commitment to fostering the research careers of young scientists. Eligibility. V The candidate must have a Ph.D. (or equivalent) awarded no earlier than May 2006 and no later than 1st February 2010, and must be actively involved in research in the field of evolutionary biology. There are no other restrictions. Applicants do not have to be members of the Society for the Study of Evolution, but such membership is encouraged. Nomination/Application. V Candidates may apply directly or may be nominated. Established researchers are encouraged to nominate outstanding young scientists who may be unaware of the existence and prestige of this prize. Each candidacy must be supported by the following materials detailing the candidate's career to date: (1) a curriculum vitae, (2) a summary of research accomplishments, (3) a 3-5 page statement of research plans for the next 5 years (note length limitation), (4)pdf copies of three recent publications, (5) names and addresses of the three referees (including the nominating scientist where applicable) who have sent supporting letters. All application/nomination materials must be sent as PDF e-mail attachments, preferably united in a single file. The three letters of reference are sent separately, but no application will be considered without these letters. The deadline for receipt of all materials, including letters of reference, is 15 February 2010. All materials should be sent to the secretary of SSE (Judy L. Stone) at the following email address: istone@colby.edu

Award. V The Dobzhansky Prize is accompanied by a check for U.S. \$5000, and will be awarded at the annual meeting of the Society for the Study of Evolution, June 25-29 2010, in Portland, Oregon. The recipient is expected to be present to receive the award and to give an oral presentation about his/her research. To facil-

itate attendance, the SSE provides funds to cover the costs of conference registration, accommodation during the conference, and expenses for travel to and from the conference. The recipient will be notified of the award by late March 2010.

#### THE R. A. FISHER PRIZE

The R. A. Fisher Prize is awarded annually by the Society for the Study of Evolution for an outstanding Ph.D. dissertation paper published in the journal Evolution during a given calendar year. The award comes with a \$1000 honorarium. Eligibility. VTo be eligible for consideration, a manuscript must be based on graduate work of the primary author. Nominations/Application. V Authors of eligible manuscripts may initiate a nomination upon acceptance of their manuscripts for publication. Nominations must include the final version of the manuscript, dissertation completion date, and a supporting letter from the Ph.D. supervisor or other individual familiar with the work. If the candidate is not the sole author of the paper, the supporting letter should identify the candidates role in completing the research and writing the paper. Nominations for manuscripts published in 2009 will be accepted throughout the year but must arrive no later than January 31, 2010. The complete nomination should be submitted electronically to: the secretary of SSE (Judy L. Stone) at the following email address: jstone@colby.edu

Judy Stone <jstone@colby.edu>

## SystematicEnto paper

Dear all,

I am looking for a pdf of the following paper:

Doyen and Tschinkel : Systematic Entomology(1972)7: 127-183. Phenetic and cladistic relationships among tenebrionid beetles

Can you help me?

Thx

Dr Sébastien Patiny (Entomologist) Chemcom s.a. 1070 Brussels BELGIUM

url : http://sites.google.com/site/patinys/ Sébastien Patiny <patiny.s@gmail.com>

# UCollegeLondon MedawarLecture Nov25

Dear all,

In conjunction with the CEE (Centre for Ecology and Evolution -http://www.ucl.ac.uk/~ucbtcee/-), the London Evolutionary Research Network (http:/-/londonevolution.net) is hosting the annual Medawar Lecture.

This year we are pleased to announce a lecture by Sir Patrick Bateson, Emeritus Professor of Ethology at the University of Cambridge:

Evolutionary Theory Evolving

Location: JZ Young Lecture Theatre, Anatomy Department, UCL

Time & Date: 18.30, Wednesday 25th November 2009

For information on this event, including directions

to UCL, please visit the LERN website (http://-londonevolution.net/?p=131).

The event is free and everyone is welcome!

The LERN Committee

LERN: the London Evolutionary Research Network. E-mail info@londonevolution.net or visit http://londonevolution.net for events and further information. New members and suggestions for speakers are always welcome!

Gillian Pepper MSc Student - Evolutionary Psychology Brunel University

Department of Psychology School of Social Sciences Brunel University Uxbridge UB8 3PH UK Mobile: 07951 295 751 Email: ht08ggp1@brunel.ac.uk Personal web page: http://www.scienceandsociety.info Science Policy UK Network: http://network.nature.com/groups/ukpolicy/forum/topics London Evolution Research Network: http://londonevolution.net/-Research and Media Network: http://researchandmedia.ning.com/profile/GillianPepper Gillian Pepper <ht08ggp1@brunel.ac.uk>

# **PostDocs**

Barcelona Metagenomics	82
BrownU PlantEvolutionaryGenet	82
CornellU HumanPopulationGenomics GWAS	83
FloridaStateU SexualSelection	84
Grenoble ConservationGenetics	84
Hawaii InsectSystematics	85
ImperialCollegeLondon SpeciationGenomics	85
IndianaU HostMicrobeCoevolutionTheory	86
INRA Bordeaux ForestEvolutionaryGenetics	86
LavalU CaribouPopulationGenetics	87
London EvolutionGenomicObesity	
London GenomeSizeEvolution	88
Mariensee Germany Bioinformatics	88
McMasterU DiseaseEvolution	89
Montpellier PopulationGenetics	89
NorthernArizonaU BacterialGenomics	90

UHouston EvolutionaryBiology	99
UKansas GeneticsComplexTraits10	)0
UKonstanz MolecularEvolution10	)1
UMaryland GenomeEvolution10	)1
UMontana PopulationMonitoring 10	)2
UNewSouthWales EvolutionaryBiol10	)2
URochester NasoniaEvolutionaryGenomics10	)3

## **Barcelona Metagenomics**

A three-year postdoc position is available at the Institute of Evolutionary Biology (IBE), UPF-CSIC, Barcelona (http://www.upf.edu/bioevo/ ; www.prbb.org), under the supervision of Francesc Calafell. The successful candidate will join a project in skin metagenomics: we are analyzing by ultrasequencing the microbial communities in human skin by themselves and in relation to the onset of psoriasis. We are looking for a Ph.D. in bioinformatics, genetics, or evolutionary biology, with a strong background in sequence analysis: assembly, alignment, tree construction, evolutionary analysis of sequences. Programming in PERL and other languages is a requirement. We seek a positive, analytical, proactive persone who feels comfortable working in a team.

Please send by December 15th a CV, a letter of intent and two references to:

Francesc Calafell, Ph D IBE, Institute of Evolutionary Biology (UPF-CSIC) CEXS-UPF-PRBB C/ Dr. Aiguader 88 08003 Barcelona, Catalonia, Spain

Tel: +34 93 3160842 Fax: +34 93 3160901 Email: francesc.calafell@upf.edu

Francesc Calafell <francesc.calafell@upf.edu>

### **BrownU PlantEvolutionaryGenet**

Brown University

Postdoctoral Research Associate

Evolutionary genetics of plant responses to climate

2 postdoctoral positions are available in the laboratory of Johanna Schmitt to contribute to a developing in-

UtahStateU AspenEvolution	103
UTexas Austin Switchgrass Adaptation	104
UWashington ComputationalBiology Evolu	tionarySys-
temsBiology	105
YaleU BiodiversityInformatics	

terdisciplinary research program investigating genetic mechanisms of plant life history adaptation to climate.

1. A 2-3 year position, available immediately, to work on an NSF-supported project examining the effects of genetic and environmental perturbation on life history expression in Arabidopsis thaliana. The research will combine field and controlled chamber experiments manipulating germination timing, genotype, and thermal environment with extension of a genetically informed photothermal model (Wilczek et al., 2009, Science) to predict effects of natural variation in flowering time genes on life history expression. The research will ask: 1. How do mutational perturbation and natural variation in vernalization signaling pathways affect developmental dynamics, flowering time and life history expression in natural environments? 2. How does natural selection act upon this variation in natural environments, and how does it depend upon germination timing? 3. How will higher temperatures predicted by global warming scenarios affect life history expression and its sensitivity to germination timing?

2. A 2 year position (with possible extension contingent upon funding) with a flexible start date, preferably by June 2010. I am looking for a broad, creative researcher who can complement my own expertise to help develop new interdisciplinary projects with collaborators in at least one of the following areas: Genetic association analysis of a large phenotypic data set on Arabidopsis life history traits and fitness from recent field experiments in 5 European sites spanning the native climate range; Climate envelope analysis of candidate gene alleles to predict future distributions under projected climate change; Integrated analysis of the adaptive evolution of flowering and germination time in different climates; Experimental field studies of gene expression in Arabidopsis environmental signaling pathways.

I am also interested in sponsoring applications to the Alexander von Humboldt Foundation for Feodor Lynen Research Fellowships (http://www.humboldtfoundation.de/web/feodor-lynen-fellowship-postdoc.h tml <http://www.humboldt-foundation.de/web/feodor-lynen-fellowship-postdoc.h tml> ) and I encourage eligible German nationals to contact me to discuss this possibility. Requirements for these positions include a Ph.D in evolutionary genetics, evolutionary ecology, plant ecology, or plant molecular genetics, and demonstrated ability in research design, data analysis, and writing up results for publication. Depending upon the project, experience with one or more of the following will be an advantage: Large field and chamber experiments; Photothermal or gene network modeling; Climate envelope modeling; Association mapping and/or QTL mapping; Plant molecular evolution: Arabidopsis molecular development.

To apply, please send a letter describing research interests, a current CV, and arrange for 3 letters of reference to be sent to: Bonnie Horta, Bonnie\_Horta@brown.edu <mailto:Bonnie\_Horta@brown.edu> Administrative Manager, Environmental Change Initiative. Box 1951.Brown University, Providence, RI 02912. For further inquiries, please contact Johanna Johanna\_Schmitt@brown.edu Schmitt. <mailto:Johanna\_Schmitt@brown.edu> . Applications will be reviewed starting December 15, 2009 and accepted until the position is filled. Brown University is an EEO/AA employer.

Johanna Schmitt Stephen T. Olney Professor of Natural History Professor of Biology and Environmental Studies

Director, Environmental Change Initiative

Box 1951, 167 Thayer Street, Room 214A

Brown University

Providence, RI 02912 phone: 401-863-3435 fax: 401-863-3839

http://research.brown.edu/research/profile.php?id=-3D1100925108&r=3D1 http://brown.edu/Research/-ECI/

# CornellU HumanPopulationGenomics GWAS

Postdoctoral positions at Cornell University: Human population genomics and resequencing-based genomewide association studies

Three postdoctoral positions are available with Andrew Clark and Alon Keinan at Cornell University, to join a group of investigators tackling current problems in population genetic analysis of whole-genome data. The starting date for these NIH funded positions is flexible and can be as early as Dec 2009.

1) Human population genetic inference from genomewide resequencing and genotyping data (two positions). The successful applicants will develop methods for inference of demographic history, for detecting signatures of natural selection, and for predicting functional consequences of mutations in functional regions. They will apply these methods to the analysis of whole-genome data, including data from the 1000 Genomes Project (http://www.1000genomes.org) and other collaborative projects. The ideal candidate will have strong statistical and programming skills, as well as research experience in population genetics or human genetics. These projects will be carried out in collaboration with the labs of Carlos Bustamante (Stanford University) and Rasmus Nielsen (UC Berkeley).

2) Genome-wide association study of cardiovascular disease. The successful applicant will lead association testing based on both genome-wide genotyping arrays and whole-genome resequencing. S/he will participate in the development of novel statistical approaches for next-generation association studies. The ideal candidate will have a strong research experience in quantitative genetics and background in programming and statistics. This project will be carried out in collaboration with the lab of Eric Boerwinkle (University of Texas Health Science Center at Houston).

Clark and Keinan labs are part of the broader population genomics community at Cornell and the recently launched Cornell Center for Comparative and Population Genomics (http://www.news.cornell.edu/stories/-Oct08/PopGenCtr.kr.html). Competitive salaries commensurate with experience and skills will be offered, as well as generous benefits.

Interested applicants should send one PDF file with CV, a brief description of research interests and experience, and contact information for three references to ak735@cornell.edu. Please indicate "position 2031" in the subject line for the population genomics position and "position 2032" for the association study position. Informal inquiries are welcome.

Alon Keinan, Assistant Professor Department of Biological Statistics & Computational Biology 102A Weill Hall | Cornell University | Ithaca, NY 14853 ak735@cornell.edu | 607-254-1328 phone | 607-255-4698 fax http://keinanlab.cb.bscb.cornell.edu/ Andrew Clark, Professor Department of Molecular Biology and Genetics 227 Biotech | Cornell University | Ithaca, NY 14853 http://mbg.cornell.edu/cals/mbg/research/clark-lab ak735@cornell.edu

## FloridaStateU SexualSelection

Postdoctoral position: behavioral ecology

A postdoctoral position in behavioral ecology is now available in the research group of Dr. Emily DuVal at Florida State University. The successful applicant will develop a collaborative research project on sexual selection, social behavior, and/or the population genetic patterns influenced by these processes. This position is not tied to a specific research project, but is an opportunity to develop a new project capitalizing on your strengths. Both empirical and theoretical projects would be appropriate. See the DuVal Lab website for more information on current work within the lab group (http://bio.fsu.edu/duval/DuVal\_research.html).

Minimum qualifications include a PhD in a relevant field, and demonstrated skill in designing and directing independent research, conducting appropriate analyses, and publishing results.

Annual salary starts at \$37k/yr. One year of funding is available, and responsibilities for the first year include collaborating on a grant proposal to fund continued research after the first year. For empirical work, research projects utilizing local species or those found on the PIs long-term study site (Isla Boca Brava, Chiriquí, Panama) are strongly preferred.

The Ecology and Evolution group at Florida State University is an interactive and dynamic group with a strong tradition of research at the interface of ecology and evolutionary biology. See the department website for more information on current faculty ( http://www.bio.fsu.edu/ee/index.html).

Applications: Please send a statement of your research interests, outline of projects you are interested in pursuing, CV, and contact information for three references. Applicants that appear to be a good fit will be asked to write a short research proposal as part of the final application.

To apply or for more information contact Dr. Emily DuVal ( ehduval@bio.fsu.edu).

**Grenoble ConservationGenetics** 

A two-year postdoctoral position funded by the European Union (FP7) is available to investigate and develop simulation tools useful in conservation genetics and management planning. This is part of a cooperative project coordinated by Micheal Bruford (Cardiff University) and involving 13 European research groups. The supervisors for the announced position will be Giorgio Bertorelle (University of Ferrara, Italy) and Oscar Gaggiotti (University of Grenoble, France).

The general project is aimed at transferring current knowledge in conservation genetics and in the analysis of genetic variation data to management professionals and policy makers. The successful candidate for the position here announced will evaluate and extend existing methods useful for the simulation of genetic variation data under different demographic and management scenarios, and considering different sampling schemes. A web-based application will be developed during the project.

Two profiles will be considered suitable for a successful application:

1) A background in population or conservation genetics, some familiarity with the most popular methods and software useful to simulate genetic variation patterns (e.g., SimCoal, ForSim, Rmetasim, Vortex), and a keen interest in web based programming.

2) A background in programming, especially web oriented (e.g., PHP, Java, Phyton), and a keen interest in applications to population/conservation genetics problems.

The position will be based in Grenoble, France (one year) and Ferrara, Italy (one year), with short visits among the groups during each year. Travelling costs will be covered by the project. The starting date is April 2010.

Please submit a copy of the application material in a single pdf file to both Giorgio Bertorelle (ggb@unife.it) and Oscar Gaggiotti (oscar.gaggiotti@ujf-grenoble.fr) by January 15, 2010:

1. CV, including the publication list 2. Names of two referees who will be willing to submit letters of reference upon request

Giorgio Bertorelle, Dipartimento di Biologia ed

Emily H. DuVal Florida State University Department of Biological Science Tallahassee, FL 32306-1100 U.S.A. http://www.bio.fsu.edu/faculty-duval.php ehduval@gmail.com

Evoluzione, Università di Ferrara, Italy Oscar Gaggiotti, Laboratoire d'Ecologie Alpine, Université Joseph Fourier, Grenoble, France –

ggb@unife.it ggb@unife.it

## Hawaii InsectSystematics

Junior Researcher (Postdoctoral) Position in microlepidopteran systematics and taxonomy

Available March 2010 1 year position renewable for another 1.5 years upon satisfactory performance.

50,000 USD plus full benefits .

Pre-requisites: PhD in Entomology or related field and prior, demonstrated experience in molecular systematic techniques and morphology-based taxonomy as shown by a strong record of peer-reviewed publications both in molecular systematics and species descriptions.

Duties: Postdoc will be responsible for leading an NSFfunded research project on a mega-diverse group of endemic Hawaiian microlepidoptera. Including but not limited to developing novel primers for new genes, using DNA sequence to develop and write inter-disciplinary publications and simultaneously conduct species-level taxonomy including new species descriptions as part of a larger monographic goal. Additionally, postdoc will be responsible for supervising a team of undergraduate research assistants and providing mentorship to undergraduate and graduate students in the lab. Applicant must be comfortable and able to perform dissections on very small moths, and work and supervise research in a molecular lab. Frequent fieldwork to neighboring islands under occasionally harsh, but usually amazing, field conditions is also necessary.

Research Environment: the Rubinoff lab is based at The University of Hawaii in Manoa (Honolulu), the main research campus in the state. UH is a stimulating and active research campus in the middle of an unparalleled tropical archipelago for the study of evolutionary biology. Honolulu is a large, cosmopolitan city with an active and diverse culture blending American, Asian and Polynesian influences. Cost of living is comparable or less than cities like New York, San Francisco, etc...

Qualified applicants should e-mail a letter of research interests (1 page) and résumé to Dan Rubinoff, rubinoff@hawaii.edu. Review of applications will begin January 15 rubinoff@hawaii.edu rubinoff@hawaii.edu

# ImperialCollegeLondon SpeciationGenomics

Imperial College London

Division of Biology

Department of Life Sciences

Faculty of Natural Sciences

Research Associate in Speciation Genomics

Salary: £26,720 - £37,880 per annum

This is an exciting opportunity for a Research Associate with an interest in Speciation Genomics. The successful candidate will carry out cutting edge research investigating the mechanisms of speciation in two sympatric palms endemic of Lord Howe Island, Australia (Nature 441:210, 2006).

The successful candidate will have practical experience in genomics and strong interests in evolutionary biology and ecology.

Applicants must hold a PhD or equivalent qualification in genomics or a closely related discipline. You must have proficiency in genetics/genomics, advanced genetic and molecular techniques, experience of working in a multi-disciplinary environment, and a good track record of academic publications. In depth experience of bench working in molecular genetics and genomics, and experience of management and analysis of complex genomic data is essential.

The post is funded for 2 years by NERC and must start by 1 January 2010. You will be based at Silwood Park Campus and will work closely with Prof. Vincent Savolainen and his research group, in collaboration with Prof. Roger Butlin (Univ. Sheffield) and Dr William Baker (RBG Kew).

Further details of the research group can be obtained from the research group website: http://www3.imperial.ac.uk/people/v.savolainen Our preferred method of application is online via our website http://www3.imperial.ac.uk/employment (please select "Job Search" then enter the job title or vacancy reference number into "Keywords"). Please complete and upload an application form as directed. Alternatively, if you are unable to apply online, please contact Diana Anderson on 0207 594 2207 or email d.anderson@imperial.ac.uk to request an application form.

Closing date: 1 December 2009

Committed to equality and valuing diversity. We are an Athena Silver SWAN Award winner and a Stonewall Diversity Champion.

Jenny Thomas Senior HR Administrator Imperial College London Human Resources Faculty of Natural Sciences Level 2, SAF Building Tel: 0207 594 1733 Fax: 0207 594 3797

"Thomas, Jenny" <j.thomas@imperial.ac.uk>

IndianaU HostMicrobeCoevolutionTheory

A full-time NIH-funded postdoctoral position is available in Michael Wade's Lab at Indiana University at Bloomington to investigate theoretical aspects of host microbe co-evolution. Major questions include the how population structure and transmission mode influence host microbe co-evolution. Applicants should be creative and familiar with theoretical population genetics, stochastic methods, and/or computational population genomics.

The position is initially available for 12 months, with possible extension for up to 2 years. Salary will be commensurate with experience, and full benefits are included. Indiana University has a large and interactive group in evolutionary genetics. Bloomington is situated in scenic, hilly southern Indiana, near several parks and wilderness areas. The cultural environment provided by the University is exceptionally rich in art, music, and theater.

To apply, please send a letter of interest, CV and contact information for 3 references to Dee Verostko (dverostk At Indiana dot edu), using 'Wade Postdoctoral Fellow' as the subject line. Review of applications will start immediately and will continue until the position is filled. Inquires about the position can be directed to Michael Wade (mjwade At Indiana dot edu). Some past and ongoing lab research projects, and references, can be found at: http://www.bio.indiana.edu/~ wadelab/< http://www.bio.indiana.edu/%7Ewadelab/ > Indiana University is an Equal Opportunity/Affirmative Action Employer.

ybrandvain@gmail.com

# INRA Bordeaux ForestEvolutionaryGenetics

Proposal for a 18 months post-doc position:  $<<\ll$  Genetic relatedness and viability of oak seedlings in a natural forest  $>>\gg$  - UMR BIOGECO (INRA, Universite© Bordeaux I)

A 18 months post-doc position is available in our lab (BIOGECO - INRA, University Bordeaux I), starting january 2010, granted by INRA and the Aquitaine Region. The project aims at studying the link between survival, growth, parasite infection and relatedness among pedunculate oak (Quercus robur) seedlings, in a natural forest. We have a dataset of about 1000 seedlings measured during 5 years and genotyped with 10 microsatellite markers. We are looking for a candidate with a strong background in population and quantitative genetics, and with knowledge in evolutionary ecology, to carry out data analyses and to explore relationships between seedling survival and genetic diversity.

Monthly net salary, 1800 Please contact: sophie.gerber\_at\_pierroton.inra.fr cyril.dutech\_at\_pierroton.inra.fr

Offre de post-doc de 18 mois :  $<<\ll$  Apparentement ge©eétique et viabilite© de jeunes semis de chene en foeÃt naturell>> - UMR BIOGECO (INRA, Universite© Bordeaux I)

Dans le cadre d'un projet INRA-Region Aquitaine, un post-doc de 18 mois est propose© au sein de l'UMR BIOGECO (INRA, Universite© Bordeaux I), et de©buterait en janvier 2010. Le projet s inte©resse au lien entre survie, croissance, infection parasitaire et le degre© d'apparentement d'une cohorte de semis de chenes eédoncelés (Quercus robur) en eorÃt naturelle. Nous disposons d'un jeu de donne©es reposant sur un millier de jeunes plants suivis depuis plus de 5 ans et ge©notyee©slaide une dizaine de marqueurs microsatellites. Nous recherchons un candidat ayant de solides bases en ge©eétique des populations etege©nétique quantitative, et des connaissances en e©cologieeévolutive afin deeréalisel analyse des donne©es et de©tablir les relations entre survie et diversieÃe ge©eétique des semis.

Salaire mensuel net 1800 Veuillez contacter : sophie.gerber\_at\_pierroton.inra.fr cyril.dutech\_at\_pierroton.inra.fr

Sophie Gerber <sophie.gerber@pierroton.inra.fr>

## LavalU CaribouPopulationGenetics

We are looking for a postdoctoral researcher interested in the population genetics of caribou. We recently studied the connectivity of 7 caribou populations in northern Quebec and Labrador (Boulet et al. 2007. Mol Ecol 16: 4223-4240) and we plan to expand this project to a comparison of neighboring sedentary and migratory populations in southern Quebec, Newfoundland and the Northwest Territories. In addition, we seek to explore the phylogeography and connectivity of cariboureindeer at the circumpolar scale. That research will involve the genetic analysis of samples of caribou-reindeer from many parts of Canada, Alaska, Greenland, Iceland, Norway and Russia. A better knowledge of the genetic relationships between different populations, particularly between the threatened sedentary ecotype and migratory populations, is essential for caribou conservation.

The candidate should have completed a Ph.D. in population genetics within the last 5 years. An annual taxfree fellowship of 35 000CAD\$ is available for 1.5 year, with a possible 6-months extension. The successful candidate should begin this research as soon as possible in 2010. Applications should include a letter of intent, a C.V. and the contact details of three referees. Deadline for applications is 15 December 2009.

This project is part of the Caribou Ungava initiative which is a research program aimed at the development of knowledge for the management and conservation of caribou in the context of climate change (http://www.caribou-ungava.ulaval.ca). It is based at the Department of Biology of Laval University and is part of the Centre for Northern Studies (http://www.cen.ulaval.ca). The research program focuses on the population dynamics of caribou in northern Quebec and Labrador and on the impacts of industrial activities. A multidisciplinary research team is addressing topics including caribou population and behavioral ecology, plant-herbivore relationships, and population genetics. Currently, the research staff includes a professional, five graduate students and field technicians. For more information:

Steeve Côté. professor Principal Investigator Caribou Ungava Département de biologie Université Laval Québec (Québec), Canada, G1V 0A6 steeve.cote@bio.ulaval.ca Phone : 418-656-2131 #3490 Fax: 418-656-2043 Louis Bernatchez, professor Département de biologie Université Laval Québec (Québec), Canada, G1V 0A6louis.bernatchez@bio.ulaval.ca Phone : 418-656-2131 #3402 Fax: 418-656-2043

or

Louis Bernatchez, professor Département de biologie Université Laval Québec (Québec), Canada, G1V 0A6 louis.bernatchez@bio.ulaval.ca Phone : 418-656-2131 #3402 Fax: 418-656-2043

Louis Bernatchez <br/> <br/>Louis.Bernatchez@bio.ulaval.ca>

## London EvolutionGenomicObesity

Postdoctoral position on 'The Evolution of Genomic Obesity' in London.

Working in a collaboration between Queen Mary, University of London and The Royal Botanic Gardens, Kew.

We wish to identify the nature and genomic location of the DNA sequences responsible for the rapid change in genome size in the monocot genus Fritillaria. This genus contains the largest known plant genome (Fritillaria assyriaca, 1C = c. 127,000 Mb, over 80 times that of Arabidopsis thaliana). The genus also includes species with a range of smaller genomes; evolutionary inference about the changes in genomic composition will be based on an existing, well supported, molecular phylogeny.

The project will obtain new data about the sequences responsible for these changes using 454 high throughput sequencing and hybridize them back to chromosomal preparations (i.e. using fluorescent in situ hybridization -FISH).

We are therefore seeking a candidate with expertise in two areas: a) molecular genetics or cytogenetics. b) bioinformatics

We anticipate that few candidates will be strong in both areas, so please do not be put off if your expertise is mainly in one of them. Further (more formal) details can be obtained here: http://tinyurl.com/yhkjnyj Please note that the total length of the project is 3 years - but we would like to employ a candidate for 18 mths at each institution

For further details, and enquires about the suitability of your background, please send a 2 page CV and expression of interest to I.Leitch@rbgkew.org.uk

However, formal applications should subsequently be sent to the address given at the web site above.

Ilia Leitch, Andrew Leitch & Richard Nichols

r.a.nichols@qmul.ac.uk r.a.nichols@qmul.ac.uk

For further details, and enquires about the suitability of your background, please send a 2 page CV and expression of interest to I.Leitch@rbgkew.org.uk

However, formal applications should subsequently be sent to the address given at the web site above.

Ilia Leitch, Andrew Leitch & Richard Nichols

r.a.nichols@qmul.ac.uk

## Mariensee Germany Bioinformatics

## London GenomeSizeEvolution

Postdoctoral position on 'The Evolution of Genomic Obesity'.

A demanding but exciting postdoctoral position on in London (A collaboration between Queen Mary, University of London and The Royal Botanic Gardens, Kew).

We wish to identify the nature and genomic location of the DNA sequences responsible for the rapid change in genome size in the monocot genus Fritillaria. This genus contains the largest known plant genome (Fritillaria assyriaca, 1C = c. 127,000 Mb, over 80 times that of Arabidopsis thaliana, ca. 150 Mb). The genus also includes species with a range of smaller genomes; evolutionary inference about the changes in genomic composition will be based on an existing, well supported, molecular phylogeny.

The project will obtain new data about the sequences responsible for these changes using 454 high throughput sequencing and hybridize them back to chromosomal preparations (i.e. using fluorescent in situ hybridization -FISH).

We are therefore seeking a candidate with expertise in two areas: a) molecular genetics or cytogenetics. b) bioinformatics

We anticipate that few candidates strong in both areas, so please do not be put off if your expertise is mainly in one of them.

Further (more formal) details can be obtained here: http://tinyurl.com/yhkjnyj Please note that the total length of the project is 3 years - but we would like to employ a candidate for half the time at each of the two institutions POSITION ANNOUNCEMENT: Institute of Farm Animal Genetics (FLI), Mariensee, Germany

**POSITION TITLE:** Research Associate

POSITION DESCRIPTION: The appointment will be a full-time position on a postdoctoral level at the Institute of Farm Animal Genetics (Friedrich Löffler Institut), Department of Breeding and Genetic Resources in Mariensee, Germany, in a three year BLE project âEntwicklung von Instrumenten zur Qualitätssicherung von Zuchtprogrammen - QS@Breeding - (Development of Tools for Quality Assurance in Breeding Programs)â

MAJOR RESPONSIBILITIES: Emphasis will be on the development of software tools for a quality assurance framework in animal breeding programs, centering on the lifetime circle of breeding animals. Implementation will be in Perl with a focus on generally usable Web applications organized as workflow pipelines on a cluster on multiprocessor Linux servers using Open Source software. Apart from software development communication both in oral an written form is of great importance.

QUALIFICATIONS: A postgraduate degree in Computer Science or Bioinformatics or equivalent. Proficiency in Perl is required together with experience in database like Postgres and Web programming. The ability to communicate in English and preferably also in German and to collaborate with other project partners is essential.

POSITION AVAILABLE: the position is immediately available. Application deadline is January 5, 2010. SALARY: based on qualification and experience

APPLICATION PROCEDURE: Application are to be sent to inge.steppuhn@fli.bund.de. For further information contact eildert.groeneveld@fli.bund.de .

Eildert Groeneveld

Eildert Groeneveld Institute of Farm Animal Genetics (FLI) Mariensee 31535 Neustadt Germany Tel : (+49)(0)5034 871155 Fax : (+49)(0)5034 871239 e-mail: eildert.groeneveld@fli.bund.de http://vce.tzv.fal.de 9th WCGALP Leipzig, August 1-6, 2010! visit http://www.wcgalp2010.org/>

## McMasterU DiseaseEvolution

The Department of Biology in the Faculty of Science at McMaster University invites qualified candidates to apply for a two-year Post-Doctoral Fellowship.

The successful candidate will research the evolution and spread of infectious diseases of humans in a theoretical biology lab (http://lalashan.mcmaster.ca), with a particular focus on interactions between the spread of HIV and the spread of related beliefs and behaviors (see http://www.jsmf.org/grants/d.php?id=2009017).

Applicants must have a strong quantitative background, and experience either with dynamical systems, biological systems or both. A Ph.D. degree is required before beginning work.

Send a CV, a brief statement of research interests, and contact information for three references to Jonathan Dushoff (dushoff@mcmaster.ca). Alternatively, you may apply to the McMaster Mathematics Department via http://www.mathjobs.org and send an email indicating your interest in this position. Applications received by the deadline will be given first consideration, but applications will be accepted until the position is filled. McMaster University is strongly committed to employment equity within its community, and to recruiting a diverse faculty and staff. The University encourages applications from all qualified candidates, including women, members of visible minorities, Aboriginal persons, members of sexual minorities and persons with disabilities.

Jonathan Dushoff <br/> dushoff@mcmaster.ca>

#### **Montpellier PopulationGenetics**

IRD - Montpellier- Post doctorate population genetics We are currently seeking a population geneticist post doctorate:

Post-doctoral scientist

Crop Adaptation to climate variation

POSITION TITLE: Post-doctoral research position

SALARY: Commensurate with qualifications and experience, benefits included. Gross salary around  $2400\hat{a}\neg(3600\$)$ 

PERFORMANCE PERIOD: 18 months

APPLICATION DEADLINE: 15 December 2009, or until suitable candidate is found

#### POSITION SUMMARY:

The post-doctorate scientist will be part of the ARCAD programme (2009-2013),  $\hat{A} \ll$  Agropolis Resource Center for Crop Conservation, Adaptation and Diversity $\hat{A} \gg$  (http://www.agropolis-fondation.fr/uk/-our-actions/our-flagship-programmes/arcad-2.html).

He/She will work on the project âCrop adaptation to climate change: genetic and evolutionary processes involved in phenological responsesâ. The aim of this project is to explore the genetics and evolutionary mechanisms involved in local adaptation to spatial and temporal heterogeneity of climatic conditions.

#### DUTIES:

The candidate will work on methodological approaches to identify signature of natural selection along environmental gradient. The method will then be applied to perform genome wide selection scan on rice, pearl millet and /Medicago/.

#### DESIRED ABILITIES:

The ideal candidates would have a PhD in population genetics or quantitative genetics. Solid background in population genetics, statistical analyses and/or modelling is required.

LOCATION: The post-doctorate will be located in IRD campus, Montpellier, southern France close to Mediterranean sea. Montpellier enjoys a Mediterranean climate and is a lively city (http://us.montpellier.fr/1117-discovering-montpellier.htm).

Eligibility criteria/ dictated by the funding agency (Agropolis Foundation)/

Outstanding doctoral or post-doc scientist

Should not have resided or carried out his/her main activity (work, studies, etc) in France for more than 12 months in the 3 years immediately prior to the date of submission of the proposal.

Post-doc applicants should have obtained his/her PhD degree for no more than 3 years upon the date of ap-

#### plication

Candidate from or having worked in developing or emerging, Southern or Mediterranean countries are welcome//

## APPLICATION:

Please send a detailed CV, a letter of motivation, and 2 referentsâ names.

Contact: Yves Vigouroux AND Joelle Ronfort Email: yves.vigouroux@mpl.ird.fr <mailto:yves.vigouroux@mpl.ird.fr> & ronfort@supagro.inra.fr <mailto:ronfort@supagro.inra.fr>

Yves Vigouroux IRD - Institut de Recherche pour le Développement 911 avenue AGROPOLIS BP 64501, 34394 Montpellier cedex 5 France Tel : 33 (0)4 67 41 62 45 ; Fax : 33 (0)4 67 41 62 22 Email : yves.vigouroux@mpl.ird.fr Web : www.umr-diapc.fr, www.ird.fr

vigourou <yves.vigouroux@mpl.ird.fr>

## NorthernArizonaU BacterialGenomics

POSTDOCTORAL RESEARCH ASSOCIATE position available in the Center for Microbial Genetics & Genomics, Northern Arizona University, Flagstaff, AZ. The Center, led by Dr. Paul Keim, specializes in the phylogenetics and population genetics of bacterial pathogens. http://www.mggen.nau.edu/ A diversity of lab skills in genetics (of any taxa) are needed but a microbiological background is not required. The position will involve analyses several of different bacteria, likely including Brucella, Rickettsia spp., and Pasteurellae. Experience in genetic analyses required, with working knowledge in either phylogenetics or population genetics. Strong written and verbal skills are essential, as well as ability to interact in a research-driven team environment. Well established publication record and project management skills desirable.

Primary duties will include: \*Developing new genetic assays and using these assays to genetically characterize a variety of microbial pathogens. \*Applying phylogenetic analyses to better understand evolution of these organisms. \*Utilizing bioinformatic tools to identify informative genetic signatures.

Other duties may include: \*Next Generation sequencing using Illumina's Solexa or ABI SOLiD platforms \*Work in a BSL3 facility with Select Agents \*Writing for peer-reviewed publications

LOCATION: Flagstaff is a mountain town (i.e. not in the desert) with tremendous outdoor recreation opportunities, including hiking, skiing, and mountain biking. Pretty amazing spot.

REQUIREMENTS: Ph.D. in Biology or related field.

DESIRED SKILLS: Experience in next-generation sequencing (Solexa, 454, or SOLiD), real-time PCR genotyping, capillary-based fragment analysis, and Sanger sequencing. Sense of humor.

Funding anticipated for 2-3 years. Position would ideally start in January 2010, will remain open until filled. Your application materials must include a cover letter with a brief description of research interests, CV, and contact information for at least 3 references. Filling out each and every detail asked in the NAU application is not necessary (e.g. We don't really care about your high school awards). Salary will be \$41,500-44,000 depending on qualifications.

GENERAL INFORMATION: \* This position has been identified as a safety/security sensitive position. Therefore, per AZ Revised Statute, Northern Arizona University requires satisfactory results for the following: a criminal background investigation, employment history investigation, degree verification (in some cases) and fingerprinting. \* Additionally, as an employer in the state of Arizona, NAU is required to participate in the federal E-Verify program that assists employers with verifying new employees' right to work in the United States.

APPLICATION: To apply and for the official nitty gritty details see staff openings at NAU Human Resources: http://hr.nau.edu/m/content/view/797/-550/ Research Associate position, Job ID: 558192

For additional information contact:

Jeffrey T. Foster, Ph.D. Assistant Director Center for Microbial Genetics & Genomics Northern Arizona University Flagstaff, AZ 86011-4073 jeff.foster@nau.edu

 $Jeff.Foster@nau.edu \ Jeff.Foster@nau.edu$ 

# PennStateU QuantEvolutionEpidem

Penn State University Postdoctoral Research Associate Quantitative Population / Evolutionary Biology

One NIH-funded postdoctoral position in the application of network models to the spread of infectious disease is immediately available at Penn State University. The position is a joint appointment between the laboratories of Dr. Beth Shapiro (Biology) and Dr. David Hunter (Statistics). The major theme of the project is to improve statistical methods for estimating viral transmission and contact networks from diverse biological data. With this appointment, we hope to extend models to incorporate evolutionary relationships between viruses, as estimated from nucleotide sequence data. The ideal candidate will have experience both in phylogenetic and epidemiological modeling, and will be responsible for designing and carrying out statistical analysis of these data.

Applicants must hold a PhD from an accredited college or university in a relevant discipline (bioinformatics, computational biology, population genetics, or something similar) and have a strong background in computational methods, mathematics/statistics and/or programming. The successful candidate will work in an interdisciplinary group of biologists, statisticians, and computer scientists, and will have the opportunity to interact with participating faculty, post-docs and students in the various interdisciplinary and interdepartmental programs at Penn State.

Review of applications will begin immediately and will continue until the position is filled. Salary and benefits are competitive. Interested applicants should send a cover letter indicating their experience and interests, along with a CV and contact information for three references to Beth Shapiro (beth.shapiro@psu.edu).

Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce.

Dr Beth Shapiro Department of Biology http:// /homes.bio.psu.edu/people/faculty/bshapiro/ Dr David Hunter Department of Statistics http:// /www.stat.psu.edu/people/faculty/hunter.html beth.shapiro@gmail.com

# PrincetonU CiliateGenomeRearrangements

Postdoctoral Research Associate

Postdoctoral Research Associate position in the Department of Ecology and Evolutionary Biology at Princeton University, with focus on DNA Recombination, Rearrangement, Epigenetics and non-coding RNAs.

Professor Laura Landweber seeks postdoctoral research associate to study the mechanism of scrambled gene and genome rearrangements in ciliates, particularly the role of non-coding RNAs or epigenetic factors, using experimental or bioinformatic research tools or both.

Requirements: PhD in molecular biology or relevant field. Strong experimental or computational training, experience, and publications from the Ph.D., ability to work independently and creatively, and strong research and written/oral communication skills are necessary.

For more information about the lab, see http://www.princeton.edu/~lfl and recent publications, such as Nature 2008, v451, p153 or Science 2009, v324, p935.

This is a one-year initial appointment with the possibility of renewal. Funding for the project is available for 3-4 years. Apply online at http://jobs.princeton.edu/. Search for Requisition #0900307 and include a letter, CV, statement of research interest and email addresses of three references. Application review will begin immediately; start date is flexible.

Princeton University is an equal opportunity employer and complies with applicable EEO and affirmative action regulations. For information about applying to Princeton and voluntarily self-identifying, please link to

# http://www.princeton.edu/dof/about\_us/-dof\_job\_openings/ .

Diane Carlino Academic Manager Ecology and Evolutionary Biology Princeton University 104A Guyot Hall 609-258-5810 dcarlino@princeton.edu

Diane Carlino <dcarlino@Princeton.EDU>

# QueenMaryU EvolutionaryBehaviouralGenetics

Behavioural genetics of human sexual orientation Postdoctoral Research Assistant

School of Biological and Chemical Sciences Queen Mary University of London Biological and Experimental Psychology Group Ref: 09403/CA

We are seeking a highly motivated Postdoctoral Research Assistant with an interest in the behavioural genetics of human sexual orientation to join the laboratory of Dr Qazi Rahman at Queen Mary University of London.

Our laboratory is interested in resolving the biological mechanisms involved in human sexuality using methods from experimental psychology, neuroscience and biology.

We are seeking a postdoctoral researcher to test evolutionary and developmental hypotheses using twin data (collaborating with the Department of Twin Research & Genetic Epidemiology at Kingâs College London). The candidate will conduct multivariate genetic analysis on twin data, set up experiments with case-control designs and prepare publications. The post-holder will also develop projects investigating endophenotypes for sexual orientation. Demonstrable expertise in multivariate genetic analysis using twin data is essential. The ability to work independently is also important. Applicants must hold a PhD degree in behaviour genetics, psychology, neuroscience, cognitive science or behavioural sciences (e.g., psychiatry).

This is a full-time, fixed term post available for 15 months and the salary is  $\hat{A}\pm 33,492$  per annum, depending on qualifications, skills and experience. The salary is inclusive of London allowance. Benefits include 30 days annual leave, final salary pension scheme and an interestâfree season ticket loan.

Candidates must be able to demonstrate their eligibility to work in the UK in accordance with the Immigration, Asylum and Nationality Act 2006. Where required this may include entry clearance or continued leave to remain under the Points Based Immigration Scheme. Informal enquiries for further information may be made to Dr Qazi Rahman (q.rahman@qmul.ac.uk, http://www.sbcs.qmul.ac.uk/staff/qazirahman.html). Please note that applications must not be sent directly to Dr Rahman.

Further details and a BLUE application form can be obtained from the Human Resources website on: http:// /www.hr.qmul.ac.uk/vacancies or alternatively please see http://www.sbcs.qmul.ac.uk/vacancies/index.html

Completed application forms together with a copy of your CV, a letter of research interests/motivation, the names of 3 referees and quoting reference number 09403/CA, should be returned to Ms Sunita Devi-Paul, School of Biological & Chemical Sciences, Queen Mary, University of London, Mile End Road, London, E1 4NS, or by e-mail: sbcs-vacancies@qmul.ac.uk.

The closing date for applications is 17th November 2009 at 4pm. Interviews will be held in Friday 11th December 2009.

Unfortunately, we are unable to reply to those applicants who have not been short listed and invited for interview. However, we would like to thank all candidates for their applications and interest.

Alan McElligott <amcellig1@yahoo.ie>

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Send instant messages to your online friends http://-uk.messenger.yahoo.com

Alan McElligott <amcellig1@yahoo.ie>

# SantaFeInst EvoluitonaryBiol

The Santa Fe Institute (SFI) is selectively seeking applications for Omidyar Fellowships, starting in the Fall of 2010. Fellows are appointed for up to three years during which they pursue research questions of their own design and are encouraged to transcend disciplinary lines. SFI's unique structure and resources enable Fellows to collaborate with members of the SFI faculty, other Fellows, and researchers from around the world.

As the leader in multidisciplinary research, SFI has no formal programs or departments and we accept applications from any field. Research topics span the full range of natural and social sciences and often make connections with the humanities. Most research at SFI is theoretical and/or computational in nature, although some research includes an empirical component in collaboration with other institutions. Descriptions of the research themes and interests of the faculty and current Fellows can be found at http://www.santafe.edu/-research .

#### Benefits

The compensation package includes a competitive salary and excellent health and retirement benefits. As full participants in the SFI community, Fellows are encouraged to invite speakers, organize workshops and working groups, and engage in research outside their fields. Funds are available to support this full range of research activities.

#### Requirements

SFI is known for its catalytic research environment and applicants must demonstrate the potential to contribute to this community. Candidates must have a Ph.D. (or expect to receive one by September 2010), an exemplary academic record, and a proven ability to work independently. We expect a demonstrated interest in multidisciplinary research and evidence of the ability to think outside traditional paradigms.

#### Applications

Applications are welcome from candidates in any country. Successful foreign applicants must acquire an acceptable visa (usually a J-1) as a condition of employment. Women and minorities are especially encouraged to apply. SFI is an Equal Opportunity Employer.

Deadline: November 2, 2009

To apply: < www.santafe.edu/education/fellowships.php >

Inquiries: email to ofellowshipinfo@santafe.edu

The Santa Fe Institute is a private, independent, multidisciplinary research and education center founded in 1984. Since its founding, SFI has devoted itself to creating a new kind of scientific research community, pursuing emerging synthesis in science. Operating as a visiting institution, SFI seeks to catalyze new collaborative, multidisciplinary research; to break down the barriers between the traditional disciplines; to spread its ideas and methodologies to other institutions; and to encourage the practical application of its results.

SimonFraserU EvolutionaryGenetics AutismSchizophrenia Postdoctoral Fellowship in Evolutionary Genetics of Autism & Schizophrenia

The fields of psychiatry and neuroscience have developed largely in isolation from social-evolutionary theory and evolutionary genetics. A series of recent papers from my research group has focused on the evolutionary-genetic underpinnings of disorders of the human social brain, most notably schizophrenia autism (papers 91,95,108,114-116,118,121,126 and http://www.sfu.ca/biology/faculty/crespi/at publicationsr.html). These papers have focused on the roles of positive selection, genomic imprinting, and genomic copy-number variation in the evolution of human cognitive architecture and genetically-based liability to disorders of the social brain. The research centres on integration of genetic-association and copy-number data with predictions from alternative, falsifiable models for the evolutionary-genomic underpinnings of autism and schizophrenia.

One or two postdoctoral positions are available, for research on the evolutionary genetics of autism and schizophrenia starting in 2010. The qualified applicant will have trained in some aspect of human genetics or genomics at the doctoral level, and will be dedicated to rigorous application of tools from evolutionary biology and human evolutionary genetics to outstanding questions in the proximate and ultimate causation of autism and schizophrenia. Positions are initially for one year, with options for renewal.

Potential projects may include, among others:

(1) Combined analyses of positive/balancing/purifying selection and schizophrenia or autism GWAS, to infer functional sites and test disease-genetics models

(2) Tests of derived vs ancestral status of schizophrenialinked and autism-linked haplotypes

(3) Genetic studies of non-clinical populations, focusing on genetic marker loci linked to both autism and schizophrenia

(4) Meta-analyses of CNV data

(5) Analyses of family-structured disease-association data focusing on maternal effects and maternal-fetal genotype interactions

Please send by 15 December a CV and 1-2 page statement of research interests and description of skills in human-genetic data analyses to Dr. Bernard J. Crespi, Professor of Evolutionary Biology, Department of Biosciences, Simon Fraser University, Burnaby, B. C., Canada V5A 1S6, crespi@sfu.ca. Simon Fraser University is located in the Vancouver, B. C. metropolitan area. Dr. B. Crespi, Professor of Evolutionary Biology Department of Biosciences Simon Fraser University, Burnaby BC V5A1S6 Canada 778 782 3533 778 782 3496 http://www.sfu.ca/biology/faculty/crespi/ Bernard Crespi <crespi@sfu.ca>

# SwedishUAgrSci ComputationalGenetics

Post-doctoral position in Computational Genetics

The Department of Animal Breeding and Genetics is responsible for education, research and information on molecular genetics and bioinformatics, quantitative and statistical genetics, genetic evaluations and strategies for sustainable breeding programs for domestic animals. The department employs about 90 staff. Teaching at bachelor and master levels takes place primarily within the animal and veterinary science programs. You can read more on http://www.hgen.slu.se . An increased understanding of the genetics and evolution of complex traits is not only of fundamental scientific interest but is of paramount importance for future developments in most areas of biology, including human medicine and agriculture. We aim to provide new insights into complex-trait genetics by using and developing new computational methods in the areas of mathematical modeling, statistical analysis and simulation. We also conduct empirical work where we establish our own experimental animal populations and characterize these phenotypically and genetically using e.g. genomeresequencing and high-density genotyping - all with an aim to validate and replicate important findings. This Post Doctoral position is an important part in this effort.

The Post Doctoral researcher will join our young and growing Computational Genetics group. We provide a supportive environment and strongly believe in an interdisciplinary approach, so we encourage applicants with a non-standard background to apply. We are based in Uppsala at the Swedish University of Agricultural Sciences and also have links with Uppsala University. More information about our group is available at http://www.computationalgenetics.se and http://www.lcb.uu.se .

The position comprises development and use of methods, algorithms and tools for complex trait genetic analyses as well as studies of how genetic variation in complex genetic networks contributes to expression and evolution of complex traits.

A successful applicant should have relevant scientific education (PhD degree or similar) and an interest in quantitative, population and/or evolutionary genetics. A strong mathematical / statistical background and programming experience is an advantage.

Employment as a post doctor is limited to two years at full time.

SLU is an equal opportunity employer.

Further information:

Örjan Carlborg, Professor, +46 18-672 001, Orjan.Carlborg@hgen.slu.se

Academic union representatives:

Jennifer Strandman, SACO, +46 18-672 634, Jennifer.Strandman@uds.slu.se

Monica Östman, ST, +46 18-671 536, Monica.Ostman@mark.slu.se

We welcome your application marked with ref no 3244/09. Please submit your application to the Registrar of SLU, P.O. Box 7070, S-750 07 Uppsala, Sweden or registrator@slu.se no later than November 26, 2009.

Or-

Orjan.Carlborg@hgen.slu.se jan.Carlborg@hgen.slu.se

## UArizona coEvolutionaryGenomics

A Postdoctoral Researcher position in ecological and evolutionary genomics is available in the research group of Noah Whiteman in the Department of Ecology and Evolutionary Biology at the University of Arizona (http://www.eebweb.arizona.edu/Faculty/-Whiteman/). Research in the lab focuses on hostparasite co-evolution. The primary research aims are to identify the molecular basis and genomic architecture of host resistance, parasite virulence and the genomic consequences of host specificity. We use genetic and ecological models of host and parasite systems in the laboratory and field, including Arabidopsis thaliana, Drosophila species and their wild relatives.

We seek a creative, collaborative scientist who will help lead a comparative genomic analysis of an herbivorous drosophilid fly that is phylogenetically nested within the 12 genomic model Drosophila species. The researcher will have the opportunity to participate in forward and reverse genetic studies of host plant resistance, herbivore detoxification and host finding mechanisms. She/he will be encouraged to attend scientific meetings, develop an independent project that they would take with them upon leaving the lab, and participate in collecting trips and related ecological genomics studies in the Sonoran Desert, nearby Sky Islands and Rocky Mountains.

Qualifications: A Ph.D. degree in biology or a related field. Training in genome analysis, bioinformatics, molecular evolution and/or molecular biology is preferred.

Start date: As early as January 2010, but negotiable. Salary will be commensurate with experience and will include health insurance and other standard benefits, including vacation time. The initial appointment will be for one year with two additional years contingent upon satisfactory progress.

To apply, submit an application online (position 44105): www.uacareertrack.com/applicants/-Central?quickFind6150 Please include the names and contact information for at least three references in your application and submit publications via email to Noah Whiteman (noahwhiteman@gmail.com).

Review of applications begins on November 30, 2009 and will continue until position is filled.

The University of Arizona is an Affirmative Action / Equal Opportunity Employer and it is the policy of The University to ensure equal employment opportunity without regard to race, color, age, religion, sex, national origin, disability, veterans status, sexual orientation or gender identity.

At 2,500 feet above sea level, culturally diverse Tucson, Arizona is nestled among five mountain ranges in the beautiful Sonoran Desert and is surrounded by Saguaro National Park. Housing is affordable, quality of life is high and outdoor recreation opportunities include the southernmost ski area in the United States. The area receives over 350 days of sunshine per year, average high/low temperatures are 82/54 degrees F and has two rainy seasons per year.

The University of Arizona is a leading researchintensive university in the Southwest and is particularly strong in insect science and genomics. The Department of Ecology and Evolutionary Biology is affiliated with the Center for Insect Science.

Noah K. Whiteman, Ph.D. Harvard University Organismic and Evolutionary Biology 26 Oxford Street Cambridge, MA 02138 Tel: 617-495-4012 email: nwhiteman@oeb.harvard.edu

"Noah K. Whiteman" <nwhiteman@oeb.harvard.edu>

## **UBritishColumbia Biodiversity**

#### Postdoctoral Fellowship Opportunity

**Biodiversity Research Centre** 

The University of British Columbia As a part of our NSERC CREATE training program in < http:/-/biodiversity.ubc.ca/BRITE/index.html > biodiversity research , we seek applicants for a 2-year postdoctoral fellowship in the U.B.C. Biodiversity Research Centre ( < http://www.biodiv.ca/ > www.biodiversity.ubc.ca). The Centre is currently made up of over 40 members of the U.B.C. Science Faculty with interests in ecology, evolution, systematics, biodiversity and conservation. Preference will be given to candidates with bold ideas, demonstrated research ability, and strong communication skills. The successful candidate will be expected to: conduct original research on core problems in biodiversity, foster interactions within the Centre, run a seminar series, and organize a retreat.

Starting date, 1 September 2010. Salary \$40,000 per yr. Research stipend: \$7,000 per yr. Send curriculum vitae, three letters of reference, and a brief statement of goals to: Search Chair, Biodiversity Research Centre, U.B.C., 6270 University Blvd., Vancouver, B.C., Canada V6T 1Z4. (Fax 604-822-2416, e-mail biodiversity.centre@ubc.ca). Closing date for application, 5 January 2010.

The University of British Columbia hires on the basis of merit and is committed to employment equity. We encourage all qualified candidates to apply.

See: http://www.biodiversity.ubc.ca/research/-ppostdoc.html

Please let me know if you require further information. Many thanks, Lebby

Penelope (Lebby) Balakshin Administrator Beaty Biodiversity Museum and Biodiversity Research Centre Tel: 604-822-0862 Cell: 604-802-6330

admin@biodiversity.ubc.ca

A Postdoctoral Fellow position is available in the lab of Dr. Keith Adams at the University of British Columbia in the area of evolutionary genomics. My lab's research combines evolutionary biology with molecular genetics and bioinformatics approaches to study how gene expression, regulation, alternative splicing patterns, structures, and sequences evolve. We focus on expression of genes duplicated by polyploidy. See my web page at http://www.botany.ubc.ca/people/kadams.html for a description of current research. I am looking for a postdoc to study genomics of duplicate gene expression and alternative splicing in plants using RNA-seq transcriptome profiling (Illumina). The postdoc can interact with postdocs in other labs, including the Rieseberg and Cronk labs, who study evolutionary genomics and use next generation sequencing to answer evolutionary questions. My lab is housed in new research building with excellent computational infrastructure.

Candidates should have a strong background in evolutionary genomics, molecular evolution, bioinformatics, or genome analysis in any organism. Experience with computational analysis of sequence or expression data is required as is the ability to do scripting in Perl or Python. Experience with next generation sequence analysis (Illumina, 454, or SOLiD) is desirable but not required. The position is available immediately and the preferred start date is by April 1, 2010. Funding is available for at least two years.

For more information contact Keith Adams at keitha@interchange.ubc.ca Informal inquiries about the research area and projects are welcome. To apply, send a CV, a description of your research interests and your Ph.D. research, and contact information for three references to the above email address.

Keith Adams Assistant Professor Botany Department and Centre for Plant Research University of British Columbia Vancouver, Canada

keitha@interchange.ubc.ca keitha@interchange.ubc.ca

# **UBritishColumbia EvolGenomics**

Berkeley, CA 94720-3140 phone: (510)-325-9547 Doris Bachtrog <dbachtrog@berkeley.edu>

# **UCaliforniaBerkeley EvolutionaryGenomics**

UC Berkeley, Postdoc in Evolutionary or Functional genomics

A Postdoctoral position is available in the group of Doris Bachtrog at the University of California, Berkeley. The specific project is flexible, but will involve high-throuput sequencing technology to study genomewide analysis of gene expression or genome polymorphism data in Drosophila miranda. Current research in the lab combines comparative, computational and functional genomics approaches with evolutionary theory and modeling to study evolutionary and functional aspects of sex chromosome differentiation in Drosophila to address questions including: (1) How and why do Y chromosomes degenerate? (2) How does genetically inactive heterochromatin form on an evolving Y? (3) How is dosage compensation acquired on an evolving X? (4) What evolutionary forces drive the demasculinization of X chromosomes in Drosophila? (5) How does intragenomic conflict between the sexes shape the functional divergence of sex chromosomes?

Our group shares space and weekly lab meetings with those of Rasmus Nielsen, Monty Slatkin and John Huelsenbeck and enjoys close ties with other members at the UC Berkeley campus, notably Mike Eisen, Yun Song and Lior Pachter. Applicants for the position must have either a background in high-throughput genomics techniques, or computational population and evolutionary genomics analysis. Programming and bioinformatics skills are highly beneficial.

Funds are available to support this position for up to three years. The position is immediately available and the search continues until the position is filled.

To apply, please submit by email a CV, a brief description of research interests (no more than one page), and the names and contact information for two references to Doris Bachtrog (dbachtrog@berkeley.edu)

For further information about our research program, please visit our website and the departmental website:

http:/-

http://ib.berkeley.edu/labs/bachtrog/ /fisher.berkeley.edu/cteg/index.html http://-

ib.berkelev.edu/ Doris Bachtrog University of California, Berkeley Department of Integrative Biology Center for Theoretical Evolutionary Genomics

**UColgne ExperimentalProteinEvolution** 

Postdoc position in experimental evolution

We seek a postdoc for a collaborative project between the University of Cologne (Prof. Joachim Krug) and Wageningen University (Dr. Arjan de Visser) on epistasis, recombination and the predictability of adaptive evolution. The project is part of the Collaborative Research Center 680 "Molecular basis of evolutionary innovations" funded by Deutsche Forschungsgemeinschaft (DFG) (http://www.sfb680.uni-koeln.de < http://www.sfb680.uni-koeln.de/ > ) and coordinated at the University of Cologne. Using evolution experiments and the reconstruction of mutational pathways combined with population genetic theory (see de Visser et al. 2009 Am. Nat. 174: S15-S30), we seek to develop and test predictions about the molecular basis of adaptive pathways. As experimental system we will use TEM-1 beta-lactamase, which causes bacterial resistance to certain classes of antibiotics. We want to use this system to study the distribution of beneficial mutations, characterize fitness landscapes involving these mutations, study the effect of recombination on the rate and level of adaptation, and study factors that enhance the repeatability of evolutionary pathways in replicate populations.

Profile: We seek someone with a PhD in molecular evolutionary biology, microbial genetics or enzyme engineering. Experience with basic microbiological and molecular lab techniques are an absolute requirement; experience with evolutionary theory and quantitative models are an advantage. The postdoc will be appointed at the University of Cologne, and experimental work will be carried out primarily at the Laboratory of Genetics at Wageningen University. The initial appointment is for one year with the possibility for extension to up to four years. Salary will be paid according to level E13 of the German public service salary scale (TV-L).

Applications: Submit enquiries and applications (including CV, letter of motivation and names and contact information of two references) before December 14 to Prof. Joachim Krug or Dr. Arjan de Visser. The University of Cologne is one of the leading German institutions in Molecular and Evolutionary Genetics. Wageningen University is a small but leading university in the field of the life sciences. The laboratory of Genetics is housed at the newly built campus, and its research was ranked 4.5 (scale 0-5) in a recent evaluation. The University of Cologne is an equal opportunity employer in compliance with the German disability laws. Women and handicapped persons are therefore strongly encouraged to apply.

Dr. J. Arjan G.M. de Visser Laboratory of Genetics Wageningen University, Radix building Droevendaalsesteeg 1 6708 PB Wageningen The Netherlands P: (+)31 317 483144 M: arjan.devisser@wur.nl <mailto:arjan.devisser@wur.nl> W: www.gen.wur.nl/-UK/Staff/Scientific+Staff/Arjan+de+Visser

Prof. Dr. Joachim Krug Institute for Theoretical Physics Zülpicher Strasse 77 50937 Köln Germany P: (+)49 221 470 2818 M: krug@thp.unikoeln.de <mailto:krug@thp.uni-koeln.de> W: www.thp.uni-koeln.de/krug/ "Visser, Arjan de" <Arjan.deVisser@wur.nl>

# **UGeorgia PathogenDynamics**

Postdoctoral position in multi-host multi-pathogen dynamics

A position is available at the University of Georgia for a postdoctoral associate to work on the evolutionary and ecological dynamics of multi-host multi-pathogen systems. The goal of the study is to identify diagnostic evolutionary signatures of host-pathogen interactions in model systems and surveillance data. Study systems include avian/human/swine influenza viruses, West Nile virus in North American birds, and Epizootic Hemorrhagic Disease (EHD)/Bluetongue Virus (BTV) in white-tailed deer. There is considerable scope for new work to be developed and interested applicants are encouraged to inquire for details. The ideal applicant will have a PhD in a quantitative field (ecology, epidemiology, biostatistics, nonlinear dynamical systems, bioinformatics, etc.) with previous experience in the analysis of ecological or epidemiological data. The position is for 1-3 years, with a salary in the range of \$37,000-\$45,000 per year (depending on experience), plus fringe benefits. Additional information about research in this lab is available on the web at http://dragonfly.ecology.uga.edu/drakelab. For further information about the position, please contact Dr. John Drake (jdrake@uga.edu). To apply, please send a detailed CV, together with a brief statement of research interests and contact information for three references.

andrea.silletti@gmail.com

## **UGeorgia PathogenEvolution**

Postdoctoral position: modeling pathogen evolution

A postdoctoral position is available in the lab of Dr. Andrew Park at the School of Ecology, University of Georgia (UGA). The lab has broad research interests in disease ecology and evolution. The successful applicant will develop modeling techniques to characterize shortterm pathogen evolution in heterogeneous host populations, with emphasis on systems with partial crossimmunity and cross-species potential.

UGA has over 100 faculty researching infectious diseases (fid.uga.edu) and a strong emphasis on computational techniques applied to ecology and epidemiology (dragonfly.ecology.uga.edu/ceesg/).

Requirements: The researcher should have a PhD in a quantitative discipline (including mathematical modeling, evolutionary biology, theoretical biology) and demonstrate a record of successful publications, along with an enthusiasm to interact with UGA's vibrant graduate students, post-docs and faculty working in infectious disease research.

Start date & details: The position will be available from January 1st, 2010 (negotiable) and continue for 24 months. Salary will be highly competitive and commensurate with experience and qualifications (~\$40K). The position will also include research funds, health insurance, and benefits.

Applications: please send a cover letter and CV and arrange to have 2 letters of recommendation sent to Dr. Park (awpark@uga.edu). Review of applications will begin immediately, and continue until the position is filled.

Location: Athens, Georgia, is a wonderful place to live. The town is regularly ranked among the top college towns in the U.S. With about 100,000 people, Athens has a lively downtown with great restaurants and a vibrant music scene. We are about an hour drive from Atlanta, a major metropolis and airport hub, but also about 90 minutes from the hiking trails of the Appalachian mountains. The pristine coast of the Atlantic Ocean and the memorable city of Savannah are a four and a half hour drive away.

More information on the research in the lab can be found at: blackbear.ecology.uga.edu/parklab

Dr Andrew Park Assistant Professor Odum School of Ecology & Dept. Infectious Diseases, College of Veterinary Medicine University of Georgia, Athens, GA USA

Tel: +1.706.542.5373 Fax: +1.706.542.4819 Cell: +1.706.540.6025

Web page: blackbear.ecology.uga.edu/parklab

Andrew Park <awpark@uga.edu>

## **UHelsinki ButterflyGenomics**

Postdoctoral position in butterfly functional genomics: identifying the mechanistic basis of fitness differences in the wild.

Dept. of Biological and Environmental Sciences / University of Helsinki, Helsinki Finland

Duration: 2 years, and possibly up to 4 years Funding: Academy of Finland Gross monthly salary: 2800 - 3500 Review of applications: begins 20 November 2009 and will continue until a suitable candidate is found.

A postdoctoral position is available to work on the functional genomics of a balanced polymorphism showing strong correlations with individual performance and fitness. A number of recent studies in the Glanville fritillary butterfly have documented a strong correlation between amino acid polymorphism at the phosphoglucose isomerase (Pgi) gene and increased flight metabolic rate, early adult fecundity, and deme growth rate in a metapopulation. While much is understood about the Pgi gene, as it catalyzes the second step of glycolysis, this grant seeks to determine the specific genetic basis for these observed correlations and place this within an evolutionary context. Research will involve the design and use of gene capture techniques followed by next generation sequencing, bioinformatic analysis, and population genetic analysis of the data. Targeted genes will involve those of central metabolism and genes flanking Pgi along its chromosome. A rapidly increasing diversity of genomic resources are becoming available for the Glanville fritillary, with extensive EST libraries already generated, a well functioning microarray, and full genome sequencing well underway.

The successful candidate will join the research group of Christopher Wheat (http://christopherwheat.net/-) at the Department of Biological and Environmental Sciences, University of Helsinki. A PhD and a strong background in genetics or evolutionary biology are required. Good skills in molecular genetics and / or bioinformatic programming are essential. Fluency in Finnish is not required. In addition, the postdoc will have the opportunity to interact with members of the very international Metapopulation Research Group (http://www.helsinki.fi/science/metapop/).

The Department of Biological and Environmental Sciences is located in a new science center with excellent facilities approximately 10 minutes from downtown Helsinki, connected by excellent public transportation. The department has world class researchers in ecology and evolutionary research (http://www.helsinki.fi/bioscience/ecology/research.htm ). Helsinki is a very lively city, offering all of the amenities one expects of a European capitol city. Fluency in Finnish is not required, as the vast majority of Finnish people speak excellent English.

The position is for 2 years, and potentially up to 4 depending on starting date (January 2010 or soon thereafter). Contract will be renewed on an annual basis. Gross monthly salary is Eur 2800 - 3500, depending on experience. Salary includes occupational work health coverage.

Interested candidates are strongly encouraged to make informal contact with Chris Wheat as soon as possible (chris@christopherwheat.net). Applicants should send a 1-2 page application letter stating their research interests and date of availability, a detailed CV, and the names and contact details of at least two references, by email to Christopher Wheat (chris@christopherwheat.net). Review of applications will begin on 20 November 2009 and will continue until a suitable candidate is found.

Christopher Wheat Department of Biological and Environmenal Sciences University of Helsinki Viikinkaari 1 00014 Helsinki FINLAND

http://www.christopherwheat.net chris@christopherwheat.net

UHouston EvolutionaryBiology

Graduate or Postdoctoral Position in Evolutionary Bi-

ology

A graduate or postdoctoral position in evolutionary biology is available in the laboratory of Dr. W. Anthony Frankino in the Department of Biology & Biochemistry at the University of Houston. The position is supported by an NSF Collaborative Grant and research will be conducted in concert with the Dworkin and Shingleton labs at Michigan State University. The successful candidate will conduct research with all three groups.

The project entails using artificial selection to create evolutionarily derived fly lineages which will be used to test predictions regarding the proximate basis of morphological scaling relationship expression and evolution. The derived lineages will also be used in a variety of studies to elucidate the fitness consequences of variation in these scaling relationships. The project is well suited to individuals interested in using crossdisciplinary, integrative approaches to studying morphological evolution.

The University of Houston's existing strengths in ecology and evolution and in mathematical biology are complemented by close ties to other institutions in the city, including the Texas Medical Center and Rice University. These ties, combined with the ongoing collaborations with the MSU labs, means that this position offers an intellectual environment and research opportunities that can exceed those of more typical appointments.

An ideal candidate will have proven expertise in evolutionary genetics, some computational skills and a desire to conduct research across laboratories in a collegial environment. Experience with Drosophila is beneficial but not necessary. To apply, send a single PDF file containing a letter of interest, CV, GRE scores (for graduate applicants), and contact information for three references to frankino@uh.edu . Review of applications is ongoing, and the research is to begin in January 2010.

More information on the Frankino, Dworkin, and Shingleton labs can be found at:

bchs.uh.edu/~frankino/ www.msu.edu/~idworkin www.msu.ed/~shingle9 The University of Houston has student body of ~36,000 and is one of the most culturally diverse research universities in the United States. The fourth largest city in the US, Houston is a surprisingly verdant city offering a vibrant, eclectic, and accessible cultural life that is more affordable than that of most other major metropolitan areas. A brief statement about the city can be found on the Frankino webpage here: bchs.uh.edu/~frankino/life/houston/ houston.html .

UH is an Equal Opportunity/Affirmative Action Em-

ployer. Minorities, women, veterans, and persons with disabilities are encouraged to apply.

frankino@uh.edu http://bchs.uh.edu/~frankino/ Tony Frankino Department of Biology & Biochemistry tel: (713) 743-2173 SR2 rm 321B fax: (713) 743-2636 University of Houston Houston, TX 77204-5001 USA

wafranki@central.uh.edu

#### **UKansas GeneticsComplexTraits**

The Macdonald lab at KU has an opening for a postdoc to study the genetic basis of complex trait variation. Our goal is to identify the precise causative polymorphisms underlying trait variation, and characterize the evolutionary forces that act to maintain variation in populations. We use Drosophila as a model system, and combine experimental and computational biology approaches to investigate variation in a number of traits, including stress- and drug- resistance, and genital morphology. We also recently received additional funding to study gene expression variation. Potential projects include identifying QTL and eQTL in a unique mapping resource consisting of 1,500 genotyped 8-way RILs, integrating phenotypic variation with both nucleotide sequence and gene expression variation ("systems genetics"), bioinformatic analyses of fifteen resequenced Drosophila genomes, and developing methods to relate phenotype to genotype in multiparent advanced intercross mapping panels. The position will provide a lot of flexibility to develop an independent line of research.

The position requires ล Ph.D in evolutionary/computational biology or population/quantitative/statistical genetics, and a record of published, peer-reviewed research in areas related to population or quantitative genetics, or genome biology. Depending on the project, the position would suit individuals primarily interested in wetlab/fly work, or those with exclusively computational biology interests. However, experimentalists must demonstrate basic knowledge of analytical methods (e.g., Unix, Perl, MySQL, R) given the massive phenotype/genotype datasets we typically deal with. We do not require that applicants have previous experience with flies.

The position is open and review of applications will begin immediately and continue until the position is filled. Informal inquires are welcome and can be directed to Stuart Macdonald (sjmac@ku.edu). To apply, complete an online application at https://jobs.ku.edu (position number 00066120). Attach a cover letter (describing your interest in the position and any relevant expertise), a full CV, and complete contact information for 3 referees. EO/AA Employer.

Dr. Stuart J. Macdonald Department of Molecular Biosciences 1030 Haworth Hall 1200 Sunnyside Avenue University of Kansas Lawrence KS 66045

office: 785-864-5362 lab: 785-864-5777 fax: 785-864-5321 email: sjmac@ku.edu web: http://web.ku.edu/sjmac/ sjmac@ku.edu sjmac@ku.edu

## **UKonstanz MolecularEvolution**

ONE POSTDOC POSITION V in molecular evolution, genomics or bioinformatics. University of Konstanz, Germany.

At the University of Konstanz in Germany we have one postdoc position available starting on January 1, 2009 at the Genomic-Proteomics Center http://cms.uni-konstanz.de/genomics-center/ in the Department of Biology.

Through the funding of the University of Konstanz by the "excellence initiative" of the German government we are in the process of establishing a Genomics-Proteomics Center that will include second generation sequencing technologies (Roche GSFLX and Illumina GA IIX). Therefore, we are particularly interested in a Ph.D. biologist/ bioinformatics with expertise in molecular evolution, molecular phylogenetics and bioinformatics. We expect that a post for a "junior professorship" in bioinformatics will be filled shortly as well.

The postdoc projects we are interested in have to do with fish genomics and in particular comparative genomics of cichlid fish. Other projects deal with the evolution of gene families and comparative genomics of chordates and vertebrates. Candidates should have a strong interest in bioinformatics, developmental and evolutionary biology and should be experienced in molecular techniques and/or computational biology. The person we are looking for should have skills in the analysis of second generation sequencing technologies and should be willing to interact with other groups in the University of Konstanz that would be using the facilities of the Genomics-Proteomics Center.

The salary is according to the German TVL salary scale that includes extensive health and retirement benefits. The initial contract period would be for two years with the potential for additional years of funding.

Further information on our research can be obtained from our web page: www.evolutionsbiologie.unikonstanz.de For publications see . http://www.evolutionsbiologie.unikonstanz.de/index.php?section'. Applications should include a CV, statement of research interests and email addresses of two references. Review of applications will commence on 1. December 2009. The starting date is flexible. Applications should be sent as one pdf file to axel.mever@uni- konstanz.de .

This position is affiliated with the new graduate school in Chemical Biology V and the new International Max-Planck Research School for Organismal Biology. For more information visit http:// www.chembiol .uni-konstanz. de/ and http://cms.uni-konstanz.de/organismal-biology/ . For these new programs we invite applications of qualified Masters students as well as Ph.D. candidates.

This search will remain open until the postdoc position is filled.

Informal inquiries should be addressed to Prof. Axel Meyer, Ph.D. (axel.meyer@uni-konstanz.de ).

Prof. Axel Meyer, Ph.D. Chair in Zoology and Evolutionary Biology, Department of Biology, University of Konstanz 78457 Konstanz Germany - fon + 49 7531 88 4163 fax + 49 7531 88 3018 secretary: Ingrid.Bader@ uni-konstanz. de tel. + 49 7531 88 3069

Axel Meyer <axel.meyer@uni-konstanz.de>

## **UMaryland GenomeEvolution**

A post-doctoral position is available immediately at the Institute for Genome Sciences for an enthusiastic, highly motivated researcher interested in studying genome evolution.

The project addresses a fundamental question in the field, namely the genetic mechanisms underlying shifts in genome nucleotide composition. The research, to take place in Joana Silva's group, is based on the sequenced genomes of over a dozen apicomplexans, including eight Plasmodium, three Cryptosporidium and three Theileria species, the causative agents of malaria, cryptosporidiosis, and theileriosis and East Coast fever, respectively.

The ideal candidate will have a doctoral degree in

Molecular Biology, Genetics, Evolution, or a related field, and will be thoroughly familiar with standard molecular biology techniques, and with molecular evolution principles and methodologies. Experience with programming languages such as C/C++ or Perl is a plus. A publication record in parasitology, evolutionary biology or related field is a must.

The successful candidate will benefit from a community of very interactive research labs, a large group of bioinformatics programmers and a variety of laboratory, sequencing and computational resources available in the newly formed Institute for Genome Sciences, a world class institute to support genomic, basic and translational research to improve human heath, at the University of Maryland School of Medicine (http://igs.umaryland.edu).

The initial appointment is for two years, and is available starting immediately. Salary and benefits are very competitive. To apply, please send a CV, a statement of research interests (2 pages max) and the contact information for three references to igs-jobs@som.umaryland.edu (Subject: Postdoc in genome evolution). Additional inquiries about the position can be sent to Joana Silva (jcsilva@som.umaryland.edu). The position will remain open until a suitable candidate is found.

Ph.D. Joana C. Silva, Institute for Genome Sciences Dept Microbiology and Im-& munology University of Maryland School of Medicine http://medschool.umaryland.edu/-FACULTYRESEARCHPROFILE/viewprofile.aspx?id 314

jcsilva@som.umaryland.edu silva@som.umaryland.edu

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## **UMontana PopulationMonitoring**

# POST-DOCTORAL POSITION IN POPULATION MONITORING

We are looking for a post-doctoral fellow to evaluate monitoring schemes for rare carnivores, especially wolverine (\*Gulo gulo\*) and fisher (\*Martes pennanti\*). The post-doc will evaluate both demographic and genetic monitoring approaches to determine which ones are most powerful for these rare and threatened carnivores.

There have been many monitoring schemes proposed

for these rare and widely dispersed carnivores. Plans have included monitoring occupancy, abundance, number of dens per year, adult female survival, effective population size, and genetic connectivity. Few of these approaches have been rigorously evaluated to determine the effect size they can detect, and overall precision. Most importantly, these methods have not been compared amongst each other for efficacy or cost-efficiency.

The successful applicant for this position should have skills in spatial modeling, demographic modeling, and understand population genetic concepts. Ideally, the applicant will be familiar with GIS and have the ability to program in Python or related programs.

If you are interested, please email both of us your CV, along with names and emails for three references. We will begin considering applicants on 15 November.

Michael Schwartz Rocky Mountain Research Station US Forest Service 800 E. Beckwith Ave. Missoula MT 59801

mkschwartz@fs.fed.us

(406) 542-4161

Fred Allendorf Division of Biological Sciences University of Montana Missoula MT 59812

fred.allendorf@gmail.com

## **UNewSouthWales EvolutionaryBiol**

Postdoctoral Fellow Evolution & Ecology Research Centre, University of New South Wales

The successful applicant will play a leading role in research on nongenetic inheritance in the laboratory of Dr. Russell Bonduriansky (http://www.bonduriansky.net/) at the University of New South Wales in Sydney, Australia. The broad aims of this project are to understand the mechanisms and fitness consequences of maternal and paternal effects, using an insect model system. In addition, the postdoctoral researcher will have ample opportunity to develop their own research projects. The Bonduriansky lab forms part of the Evolution & Ecology Research Centre (http://www.eerc.unsw.edu.au/), one of Australia's leading research centres in ecology and evolution.

Preference will be given to applicants with a strong track-record of research and publication in leading journals on topics relating to evolutionary functional genetics/genomics, parental effects and/or phenotypic plasticity.

The successful applicant will be employed on existing funds, but will be expected to develop and submit an application for a postdoctoral fellowship and research grant to the Australian Research Council (ARC). ARC applications will be due in late February, 2010.

This is a full-time, fixed term position (2.5 years). The position will start in early 2010 (exact start-date negotiable). Salary is A\$69,853 per year (plus 17% employer superannuation and leave loading).

Applicants should email a cover letter, CV (including publication list) and contact information for academic referees to Russell Bonduriansky.

Applications close 10th December, 2009.

Russell Bonduriansky Evolution & Ecology Research Centre School of Biological, Earth & Environmental Sciences University of New South Wales Sydney NSW 2052 Australia r.bonduriansky@unsw.edu.au Phone: 61-2-9385-3439 http://www.bonduriansky.net/ r.bonduriansky@unsw.edu.au r.bonduriansky@unsw.edu.au ence manipulating large data sets to conduct genetic, molecular or evolutionary genetic analyses.

The research will focus on one or more following areas (a) comparative sequence evolution, including analysis of associations of expression patterns with rates of molecular evolution, (b) fine-scale mapping and cloning of QTL (e.g. host preference and hybrid incompatibility), and (c) development of cutting-edge genomic/genetic resources for the Nasonia community. Further information is available at

http://www.rochester.edu/College/BIO/labs/-

WerrenLab/nasonia/. The Biology Department, University of Rochester provides a vibrant intellectual community with a strong evolutionary genetic program.

Interested individuals should contact Jack Werren werr@mail.rochester.edu and provide a statement of research interests, pdfs of relevant publications and names and contact information for three references.

John (Jack) Werren Professor of Biology University of Rochester Rochester, NY 14627 Office: 585-275-3694 Lab: 585-275-3889 Fax: 585-275-2070 web:

http://www.rochester.edu/College/BIO/labs/WerrenLab/index.html Jack Werren <werr@mail.rochester.edu>

# URochester NasoniaEvolutionaryGenomics

## POSTDOCTORAL POSITION Evolutionary Genetics and Genomics using Nasonia

A position is open for postdoctoral research in the laboratory of John (Jack) Werren (University of Rochester) to investigate evolutionary genetics and genomics in Nasonia. Nasonia is an emerging insect model system for evolutionary and developmental research. Resources and tools include genome sequences from five closely related species, extensive gene expression data sets, genotyping microarrays and systemic RNAi. The Nasonia species are inter-fertile, allowing for genetic dissection and cloning of quantitative trait loci (QTL) affecting hybrid incompatibility and phenotypic differences between species.

We seek a postdoctoral researcher with a background and interests in insect genetics, genomics, and/or molecular evolution to conduct research on the Nasonia genomes. The individual should know how to script in PERL or PYTHON and have some level of experi-

# UtahStateU AspenEvolution

Position Description

Postdoctoral Researcher: Aspen Transcriptomics

North American aspen (Populus tremuloides) is an emerging model system for studying the effects of climate change. Research in this system is occurring at the interface between applied ecology, evolutionary genomics, and climate-change modeling. Utah State University (USU) has long been a center for aspen-related field research and climate-based modeling efforts. USU has recently developed collaboration with the US Forest Service and Oregon State University (OSU) to assess transcriptional variance related to latitude.

We are seeking a creative and highly motivated postdoctoral researcher with an interest in the interface between Applied Ecology and Genomics. The researcher will be based at USU (where tissues will be prepared), but will have the opportunity to spend time at Oregon State University (where transcriptome sequencing will be performed). Specific responsibilities will include: 1) organizing and preparing tissues for analysis in collaboration with USU faculty and the USDA Rocky Mountain Research Station, 2) overseeing data generation at OSU, 3) bioinformatic data processing and synthesis, and 4) publication in collaboration with USU faculty members and USFS cooperators.

Candidates for this position must have fulfilled the requirements for a PhD in molecular biology, evolutionary genetics, or related field, by the time of appointment. Candidates must demonstrate organizational skills, independence, and communication skills (written and verbal). Preference will be given to candidates with experience with RNA extraction, the analysis of EST or transcriptome data (Illumina or 454 platform), and experience in PERL or Python scripting. Funding for the position is expected to continue for two years, but the candidate will be encouraged to work collaboratively through USU on grant proposals extending the position. The successful applicant will benefit from interactions with USU researchers in the Ecology Center (http://www.usu.edu/ecology), the Center for Integrated BioSystems (http://biosystems.usu.edu), the USU Center for High Performance Computing (http:/-/www.hpc.usu.edu) and the USFS Rocky Mountain Research Station.

Inquires should be directed toKaren Mock (karen.mock@usu.edu) Paul Wolf or To apply for this position (wolf@biology.usu.edu). use the electronic application at http://jobs.usu.edu/applicants/Central?quickFind=3D54542 .Applicants will be asked to submit a CV, a cover letter detailing their interest and qualifications for this position, contact information for three references, and one or two representative publications. Applicants should also be aware that USU conducts routine background checks on new hires.

Salary will be determined based on experience and qualifications, and will include a generous benefits package, depending upon experience and qualifications. Utah State University is an Affirmative Action/Equal Opportunity Employer, and seeks to attract and retain a highly qualified and diverse faculty and staff.

karen.mock@usu.edu karen.mock@usu.edu

UTexas Austin Switchgrass Adaptation Postdoctoral position on switchgrass eco-physiology, genetics, and climate change

An NSF funded postdoctoral position is available at the University of Texas at Austin to explore switchgrass responses to climate change. The goal of the project is to characterize the ecological, physiological, and genetic responses of both agronomic and native switchgrass varieties to drought stress as predicted under climate change models. The project will include common garden experiments conducted under rainout shelters, measurement of plant physiology, and genomic and genetic mapping approaches to identify genes and pathways involved in stress responses.

We are looking for a highly motivated PhD with a demonstrated ability to conduct outstanding research in eco-physiology and a genuine interest in teaching. The successful candidate must have experience in the detailed characterization of plant water status, the measurement of gas exchange and chlorophyll fluorescence, and must be capable of training field technicians and undergraduates to perform these tasks. There will be opportunities to develop new complementary projects of your own interest, and to participate in related ongoing and new projects associated with our collaborative effort including (but not limited to) connecting leaf level physiological status to genetic mechanisms of stress response, exploring links between plant and stand level physiological responses, and modeling plant performance under climate change.

In addition, the candidate will be involved in a collaborative effort to train and mentor undergraduate researchers by co-teaching a course with the project PIs through the Freshman Research Initiative program (http://cns.utexas.edu/research/freshman-research-initiative). This course will focus on switchgrass biology linking ecology, physiology, and climate change with biofuel research. The course will involve training a small cohort of students (10-15 per class) in content and skills to pursue the fundamental questions of our project.

Application review begins immediately and will continue until the position is filled. The preferred start date is in January 2010, but is negotiable. Applicants should electronically submit a single pdf file containing a brief cover letter outlining qualifications and interests, curriculum vitae, reprints or thesis chapters, and the names and addresses of three references. Applications and questions concerning the position should be directed to:

Dr. Tom Juenger University of Texas at Austin Section of Integrative Biology (tjuenger@austin.utexas.edu). The University of Texas at Austin is an affirmative action, equal opportunity employer committed to excellence through diversity.

tjuenger@austin.utexas.edu tjuenger@austin.utexas.edu

# UWashington ComputationalBiology EvolutionarySystemsBiology

Postdoctoral positions in Computational Biology and Evolutionary Systems Biology at the University of Washington

Postdoctoral positions are available with Elhanan Borenstein's group in the Department of Genome Sciences at the University of Washington. Borenstein's group focuses on computational research in Evolutionary Systems Biology - an emerging field that examines the interplay between the evolutionary process and the organization of complex biological systems, with an eye to expanding fundamental theories in evolutionary dynamics, systems biology, and ecology.

Specific research themes include:

- Large scale computational analysis of biological networks and their evolution (with an emphasis on metabolic networks) - Metabolic interactions, community structure and systems biology of microbial communities (and specifically the human microbiome) and analysis of metagenomic data - Modularity, robustness, evolvability, and assembly rules of biological systems -Population genetics and evolutionary theory

Research in the group is multidisciplinary in nature and spans several levels of abstraction, ranging from state of the art computational analysis of complex networks and high-throughput data to theoretical studies of mathematical and computational models.

The University of Washington is consistently ranked as one of the top research universities in the country and is the largest university in the northwestern United States. The Department of Genome Sciences (http://www.gs.washington.edu/) addresses leading edge questions in biology and medicine by developing and applying genetic, genomic and computational approaches. The department faculty includes nine NAS members, five HHMI Investigators, and a 2001 Nobel laureate in Medicine. The department moved into the new, state of the art Foege Building in 2006. Seattle area is home to many major academic institutes and hi-tech companies, forming a vibrant and exciting research community. Considered one of the nation's most beautiful and livable cities, Seattle boasts an array of cultural activities, parks, and restaurants, and serves as the gateway to National Parks and Forests, as well as boating, skiing and hiking areas.

The successful candidate is enthusiastic, creative, highly motivated, with a track record of research excellence in computational biology. Strong analytical, quantitative and computational/programming skills are essential as well as the ability to conduct independent cutting-edge research. Experience with complex biological networks, large-scale biological data, bioinformatics, and modeling is highly desirable. PhD in life sciences, computer science, mathematics, or bioinformatics is required. Candidates with a multidisciplinary background, spanning both life sciences and computer sciences are especially encouraged to apply.

Interested applicants should submit a CV, a brief (2-3 paragraphs) statement of her/his research interests and experience, and contact information of three references to Dr. Elhanan Borenstein (elbo@gs.washington.edu).

ebo@stanford.edu ebo@stanford.edu

## YaleU BiodiversityInformatics

Postdoctoral position in Biodiversity Science and Informatics (Biodiversity informatics, Species distribution modeling, GIS, Conservation of East African vertebrates)

Jetz Lab, Dept Ecology and Evolutionary Biology (EEB), Yale University

One 2-3 year position is available starting between January and July 2010. We are looking for an expert in the analysis, management, and visualization of large quantities of spatial (and phylogenetic) biodiversity data. Knowledge of the major biodiversity informatics initiatives, the design of relational databases, species distribution modeling, and GIS are required. The successful candidate will likely have deep working knowledge in most of the following: SQL/postgreSQL, PostGIS, ArcGIS, Python, PHP, Java, R. Experience in Unix/Linux will be a benefit. A number of basic or applied research opportunities based on databases in the Lab are possible and will be developed jointly with the successful candidate. One specific research opportunity is an assessment of the fate of East African terrestrial vertebrates under climate change. This project will include time in the field with collaborators in Kenya, and close interactions with the African Conservation Center, the Natural History Museum in Nairobi, and the Kenya Wildlife Service.

RESEARCH GROUP: In the Jetz Lab, the successful candidate will interact with two PhD students and four postdoctoral fellows. For further information see: http://www.yale.edu/jetz. Yale has a thriving community of postdocs and graduate students in ecology, evolution and global change science. The postdoctoral fellow will benefit from interactions with the EEB Department, the Yale Institute for Biospheric Studies (http://www.yale.edu/yibs), the Peabody Museum (both physically connected to EEB), the Yale Climate & Energy Institute, and the Yale School of Forestry and Environmental Studies (http://environment.yale.edu).

APPLICATION: Please email short letter of interest, C.V., and the names and contact details of three referees (ideally all combined in one pdf) to walter.jetz@yale.edu - subject line: Biodiversity Postdoc. Submission of at least partial materials before 4 Dec is encouraged (but not essential). Review of applications will begin immediately, and continue until the position is filled.

Walter Jetz, Associate Professor Ecology and Evolutionary Biology Yale University, 165 Prospect Street New Haven, CT 06520-8106, USA Email: walter.jetz@yale.edu

walter.jetz@yale.edu walter.jetz@yale.edu

# **WorkshopsCourses**

China UGeorgia FieldGenetics	106
Frankfurt Barcoding Mar23-26	107
Frankfurt GenomicDataMining Mar16-19	107
Helsinki MathematicalEvolution Aug22-29	108
JagiellonianU EvolBiol Feb11-14 2	108

# **China UGeorgia FieldGenetics**

Please distribute to any undergraduates who might be interested:

DEADLINE EXTENDED UNTIL NOVEMBER 30, 2009

Unique (and Low-Cost) Opportunity for Ten Undergraduates 2010 Ecological Genetics Field Study Abroad in China

\*Learn Chinese and Ecological Genetics at the Unversity of Georgia\*

With funding from NSF's Partnerships for International Research and Education (PIRE) program, we are offering 10 undergraduates (U.S. citizens or permanent residents only) the opportunity to participate in a unique study abroad opportunity in China during the spring and summer of 2010. This is the 3rd year of the program and students have found it to be enormously rewarding.

The research focus of our PIRE grant is a forensic biogeographic study of species that are native to China and invasive in the southeastern U.S. as well as a growing number of species native to the southeastern U.S. and invasive in China.

Each summer, we run an 8 week field course where we visit biological communities throughout China. After the field course, students can elect to continue in short-term (3-week) research internships in our partner labs in China.

Students will need to be prepared to take full advan-

tage of this experience. Therefore, during the spring semester, students must enroll at the University of Georgia (UGA) and take 3 courses; two in intensive elementary Mandarin Chinese and a laboratory course in genetics. No prior experience with Chinese language is required, although students should have had at least a course in introductory biology and preferably courses in ecology and evolutionary biology.

The cost to the student of the summer program is minimal: the grant covers travel to and within China, lodging and most meals. The student is responsible for health insurance, visa costs and personal expenses. Students are also responsible for the costs of enrolling at the University of Georgia for all required courses (12 credit hours) (all students are charged at the in-state tuition rate of ~\$250 per credit hour plus fees).

Applications for the 2010 program are available on our website: http://www.genetics.uga.edu/pire/undergrad.html. We encourage any interested students to contact Dr. Mauricio for more information (mauricio@uga.edu).

Rodney Mauricio Program Director, UGA-China PIRE

Rodney Mauricio, Ph.D. Department of Genetics Phone: (706) 542-1417 University of Georgia FAX: (706) 542-3910 Athens, GA 30602-7223 e-mail: mauricio@uga.edu

Lab Web Page: http://www.genetics.uga.edu/mauriciolab PIRE Grant Web Page: http://www.genetics.uga.edu/pire Evolution at UGA: http:/-/www.genetics.uga.edu/evolution mauricio@uga.edu mauricio@uga.edu

## Frankfurt Barcoding Mar23-26

?Hands-on Barcoding? - International Workshop and Symposium on the methods of barcoding

Frankfurt / Main, Germany 23.03. - 26.03.2010 Workshop (restricted to 20 participants) 25.03.2010 Symposium only (open to all) A workshop funded by Biodiversität und Klima Forschungszentrum (Bik-F) Organizers: Markus Pfenninger, Christian Printzen, Adrian Pachzelt

DNA-Barcoding for taxonomic identification is an emerging application in biodiversity research, which allows fast, objective and cheap species identification. Practical application however, requires the building of a reference-barcode-library, whose scientific relevance profits from the unambiguous identification of the reference individuals by taxonomic specialists. Yet the construction of the reference-barcode-library does not seem to proceed in the speed possible or necessary. The participants will learn a) meaning of barcoding in the context of international research b) documentation of samples c) fotographic archiving of specimen d) long term archiving of specimen e) preparation of the tissue for DNA-barcoding f) publishing in the barcode of life database (BOLD). The registration fee of 100? does not include traveling costs and accommodation. Near the end of the workshop there will be an open for broad public one-day symposium (March 25th, 2010). Participants interested are welcome to present either a talk or a poster. Invited speakers for the Symposium are Prof. Mehrdad Hajibabaei (University of Ottawa, Canada) and Prof. Miguel Vences (University of Braunschweig).

The workshop is limited to 20 participants and registration will open on 1st of December 2009. The registration deadline is February 15th , 2010. The registration form, further information and updates can be found on the following website: http://www.bik-f.de/root/index.php?page\_id=194 Please send questions and/or the registration form to: barcoding@senckenberg.de

Provisional program: 1st day: Documentation of the samples 2nd day: Preparation of the samples 3rd day: Analysis of the data

s1587110@stud.uni-frankfurt.de

# Frankfurt GenomicDataMining Mar16-19

?Hands-on Genomics? - International Workshop and Symposium on Genomic Data Mining Frankfurt / Main, Germany 16. - 18.03.2010 Workshop (restricted to 20 participants) 19.03.2010 Symposium only (open to all) A workshop funded by Biodiversität und Klima Forschungszentrum (Bik-F) Organizers: Barbara Feldmeyer, Klaus Schwenk, Jörg Oehlmann, Markus Pfenninger und Adrian Pachzelt

The development of ?Next Generation Sequencing?methods is currently revolutionizing the biology. In short time millions of sequences can easily be generated to sequence whole genomes, investigate extensive gen expression clusters, barcode whole biological communities and many more. To handle the large amount of data generated many new bioinformatic tools have been developed. These are used though mainly by computer scientists. However ?standard? evolutionary ecology biologists lack the necessary know-how of handling these tools. This workshop is aimed out biologists who would like to work with next generation sequencing technologies but lack the necessary knowledge of handling the data. Participants will align sequences of an example data set, search for microsatellites, assemble a mitochondrial genome, BLAST sequences and learn about currently available software tools for genomic as well transcriptomic data mining.

At the end of the workshop we have organized an oneday symposium open for broad public (March 19th , 2010). Participants interested are welcome to present either a talk or a poster. Invited speakers for the Symposium are Prof. Christian Schlötterer (University of Vienna, Austria) and Dr. Stefan Hutter (University of Munich, Germany), two requests pending.

The workshop is limited to 20 participants and registration will open on 1st of December 2009. The registration deadline is February 15th , 2010. The registration fee is 20? and does not include traveling costs and accommodation. The registration form, further information and updates can be found on the following website: http://www.bik-f.de/root/index.php?page\_id=196 Please send questions and/or the registration form to: genomics@senckenberg.de

Provisional program: 1st and 2nd day: Introduction to different genomic and transcriptomic data mining tools on the PC 3rd day: Talk about the tools to get a deeper insight of these used and also on further possibilities

s1587110@stud.uni-frankfurt.de

# Helsinki MathematicalEvolution Aug22-29

We are pleased to announce the Helsinki Summer School on Mathematical Ecology and Evolution 2010, an EMS-ESMTB School in Applied Mathematics, and invite students and young researchers with appropriate background in mathematics to attend the one-week intense program of five topics at the research frontier:

Evolutionary game theory (Karl Sigmund) Bifurcation analysis (Yuri Kuznetsov) Stochastic differential equations (Carlos Braumann) Population genetics (Reinhard Bürger) Stochastic models for epidemics (Tom Britton)

The school is organised by the Biomathematics Group of the University of Helsinki and will be held between 22 and 29 August 2010 in Turku, Finland.

Deadline for applications is 15 April 2010. There is no registration fee. The school awards 8 ECTS credits.

For more details and application, see http://-wiki.helsinki.fi/display/huippu/mathbio2010 . Eva Kisdi and Petr Ondracek

kisdi@mappi.helsinki.fi kisdi@mappi.helsinki.fi

# JagiellonianU EvolBiol Feb11-14 2

I post the announcement one more time without polish characters which may be unreadable!

50th Workshop of Evolutionary Biology

Committee of Evolutionary and Theoretical Biology of the Polish Academy of Sciences and the Jagiellonian University

11 -14 February 2010

Field station of the Jagiellonian University, Ochotnica Gorna, Poland

We are pleased to announce that 50th Workshop of Evolutionary Biology and Related Topics will be held in the field station of Jagiellonian University in Ochotnica Gorna (Poland). The station is placed in a beautiful mountain region in southern Poland (120 km from Krakow). The aim of the workshop is to present and discuss planned/ongoing research projects from different fields of evolutionary biology. The workshop is intended for PhD students and Postdocs who will give 12-minutes talks on their research. Some invited professors will give half an hour talks. Titles include: Evolutionary transcriptomics $\pm$ , Experimental Evolution $\pm$ , Evolutionary ecology of immune function $\pm$ .

Invited Professors:

Mariusz Cichon (Jagiellonian University)

Pawe©© Koteja (Jagiellonian University)

Jacek Radwan (Jagiellonian University)

Piotr Tryjanowski (Poznan University of Life Sciences)

Organising Committee:

Krystyna Nadachowska (chief)

Magdalena Zagalska-Neubauer

Magdalena Jarzebowska

The participation is free of charge. However, the participants have to cover their travel costs to Krakow (organizers will provide transport to the field station), accommodation (approximately 3 euro/night) and food (approximately 4 euro/dinner, participants will take care of other meals themselves).

Please sent the abstract (maximum 100 words) till 5th of January 2010 to Krystyna Nadachowska: krystyna.nadachowska@uj.edu.pl. Admission is limited to 15 participants. The list of participants will be announced on 15thJanuary 2010.

For more details please contact Krystyna Nadachowska: krystyna.nadachowska@uj.edu.pl.

– Krystyna Nadachowska, PhD student Institute of Environmental Sciences Molecular and Behavioral Ecology Group Jagiellonian University Gronostajowa 7 30-387 Krakow, Poland tel: +48 12 664 51 49 http://www.eko.uj.edu.pl/molecol/staff/KN.html nadaszek@gmail.com

# JagiellonianU Poland EvolutionaryBiol Feb11-14

50th Workshop of Evolutionary Biology

Committee of Evolutionary and Theoretical Biology of the Polish Academy of Sciences and the Jagiellonian University

11 -14 February 2010

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Mariusz CichoÅ (Jagiellonian University)

PaweÅ Koteja (Jagiellonian University)

Jacek Radwan (Jagiellonian University)

Piotr Tryjanowski\* (\*PoznaÅ University of Life Sciences)

Organising Committee:

Krystyna Nadachowska (chief)

Magdalena Zagalska-Neubauer

Magdalena JarzÄbowska

The participation is free of charge. However, the participants have to cover their travel costs to Krak $\tilde{A}^3$ w (organizers will provide transport to the field station), accommodation (approximately 3 euro/night) and food (approximately 4 euro/dinner, participants will take care of other meals themselves).

Please sent the abstract (maximum 100 words) till 5th of January 2010 to Krystyna Nadachowska: krystyna.nadachowska@uj.edu.pl. Admission is limited to 15 participants. The list of participants will be announced on 15thJanuary 2010.

For more details please contact Krystyna Nadachowska: krystyna.nadachowska@uj.edu.pl.

– Krystyna Nadachowska, PhD student Institute of Environmental Sciences Molecular and Behavioral Ecology Group Jagiellonian University Gronostajowa 7 30-387 Krakow, Poland tel: +48 12 664 51 49 http://www.eko.uj.edu.pl/molecol/staff/KN.html nadaszek@gmail.com

# NESCent EvolutionPublicPolicy Nov16

Please join us for a public panel discussion on the intersection of evolution, economics, and public policy, Monday Nov. 16th from 10-11:30am at the National Evolutionary Synthesis Center (NESCent) in Durham, North Carolina.

When: Monday November 16, 2009, 10-11:30am Where: NESCent, 2024 W. Main St., Durham, NC 27705, Erwin Mill Bldg, Suite A103 Directions: http://www.nescent.org/about/directions.php Nearly 30 scholars, and policymakers, from both the academic and the business worlds will gather at the NESCent headquarters November 13-16, 2009. The purpose of the meeting is to discuss how evolutionary theory can contribute new insights to regulatory problems such as financial reform, environmental regulation, and the regulation of between-group conflict. Leading experts in the fields of evolutionary biology, economics, law, psychology, and political science will participate in the discussion.

Meeting organizer David Sloan Wilson and colleagues will present the results of the meeting in a public roundtable discussion on Monday Nov. 16th from 10-11:30am. Students, faculty, reporters and members of the general public are invited to attend. Questions and comments are welcome.

For more information visit http://www.nescent.org/news/DavidSloanWilson.php –

Robin Ann Smith, Ph.D. Communications Manager Science Education and Outreach National Evolutionary Synthesis Center 2024 W. Main Street, Suite A200 Durham, NC 27705 Tel: 919-668-4544 Fax: 919-668-9198 www.nescent.org Robin Smith <rsmith@nescent.org>

## Paris BacilliEvolution May31-Jun11

Dear Evoldir members,

We are pleased to announce that the website of the 10th International Course of the Institut Pasteur on Molecular Tools and Epidemiology of Tuberculosis (May 31 -June 11, 2010, Paris) is now available:

http://www.pasteur.fr/MTET This course focuses on the use of diverse molecular tools for genotyping of the agents of tuberculosis. Covered topics include genomics, evolution, diversity and population genetics of tuberculosis bacilli, and applications to research, clinical laboratory and epidemiologic investigations. The course consists of both lectures and practical work.

We will accept 16 students. All teaching is in English.

The deadline for application is November 30, 2009.

We hope to see you in Paris,

Dr Cristina Gutierrez Course Director Foundation for Innovative New Diagnostics (FIND) Avenue de Budé 16 1202 Geneva Switzerland cristina.gutierrez@finddiagnostics.org Phone: + 41 (22) 749 29 33 http://www.finddiagnostics.org Cristina Gutierrez < Cristina. Gutierrez @finddiagnostics.org >

# UCopenhagen PlantGeneticsMarkers Feb1-12

Again, in February 2010, we are offering a Ph.D. course on the topic

MOLECULAR MARKERS IN PLANT GENETICS  $\pm$ 

(course credit: 20%, 6 ECTS points).

#### TIME AND PLACE

This course will be conducted from 01-02 to 12-02-2010,

at the University of Copenhagen, Faculty of Life Sciences (former Royal Veterinary & Agricultural Univ., KVL),

Department of Agriculture and Ecology, Plant and Soil Sciences Laboratory, Copenhagen.

## TARGET GROUP

Even though the course mainly aims to PhD students, senior scientific staff, technical lab staff and other professionals interested in the area are encouraged to consult the course responsible in order to arrange a possible attendance. The number of participants is limited due to optimal lab working conditions.

#### CONTENT

 $\ast$  DNA isolation from plant tissues

 $\ast$  SSR (single sequence repeats or microsatellites) detection

 $\ast$  AFLP (Amplified fragment length polymorphism) detection

\* Tilling/Eco-tilling (high-throughput method to detect mutations and allelic variations)

\* Semi-automated fragment analysis on AB (capillaries) and LI-COR (gel) systems.

\* Sequencing of PCR fragments (AB capillary system) and primer design

\* SNP (single nucleotide polymorphism) detection

\* Principles of different marker applications (Diversity, Mapping, QTL detection)

#### TEACHING ARRANGEMENTS

The participants will have two weeks (two times 5 days) of a full-day mixture of theoretical introductions and

#### December 1, 2009 EvolDir

laboratory work. The main emphasis is on practical experience, the theoretical background targets towards the understanding of the basis of the techniques to enable troubleshooting and the application in the participants projects. During the course, informal oral presentation and discussion of those projects will take place.

The course language will be English.

#### EXAMINATION

At the end of the course the participating PhD-students will be asked to give an oral examination on selected papers that are related to the course content.

#### PREREQUISITES

Basic knowledge of genetic/molecular genetics and basic experience in a molecular lab is highly recommended.

#### COURSE FEE

The course fee to cover the lab cost for participants from public institutions is 3840 DKK (516 æ, 771 USD) and for participants from the private sector 7680 DKK (1032 æ, 1542 USD).

#### CONTACT AND REGISTRATION

Participants should register latest 12-12-2009 on http://molbreed.life.ku.dk:8080/PhDMarker . Gunter Backes (Assoc. Professor)

University of Copenhagen, Faculty of Life Sciences, Department of Agriculture and Ecology

Thorvaldsensvej 40, DK-1871 Frederiksberg C, Denmark

eMail: guba@life.ku.dk; Phone: +45 35 33 34 34 guba@life.ku.dk

# Instructions

Instructions: To be added to the EvolDir mailing list please send an email message to Golding@McMaster.CA. At this time provide a binary six letter code that determines which messages will be mailed to you. These are listed in the same order as presented here — Conferences; Graduate Student Positions; Jobs; Other; Post-doctoral positions; WorkshopsCourses. For example to receive the listings that concern conferences and post-doctoral positions this would be 100010. Messages are categorized on the basis of their subject headings. If this subject heading is not successfully parsed, the message will be sent to me at Golding@McMaster.CA. In addition, if it originates from 'blackballed' addresses it will be sent to me at Golding@McMaster.CA. These messages will only be read and dealt with when I have time. The code 000000 has all channels turned off and hence gets only a once monthly notification of the availability of a monthly review pdf file.

To be removed from the EvolDir mailing list please send an email message to Golding@McMaster.CA. Note that 'on vacation', etc, style messages are automatically filtered and should not be transmitted to the list (I hope), but should you wish to avoid the e-mail's your code can be temporarily changed to 000000.

To send messages to the EvolDir direct them to the email evoldir@evol.biology.McMaster.CA. Do not include encoded attachments and do not send it as Word files, as HTML files, as LATEX files, Excel files, etc. ... plain old ASCII will work great and can be read by everyone. Add a subject header that contains the correct category "Conference:, Graduate position:, Job:, Other:, Postdoc:, Workshop:" and then the message stands a better chance of being correctly parsed. Note that the colon is mandatory.

The message will be stored until the middle of the night (local time). At a predetermined time, the collected messages will be captured and then processed by programs and filters. If the message is caught by one of the filters (e.g. a subject header is not correctly formated) the message will be send to me at Golding@McMaster.CA and processed later. In either case, please do not expect an instant response.

# Afterword

This program is an attempt to automatically process a broad variety of e-mail messages. Most preformating is collapsed to save space. At the current time, many features may be incorrectly handled and some email messages may be positively mauled. Although this is being produced by LATEX do not try to embed LATEX or TEX in your message (or other formats) since my program will strip these from the message.