
E v o l D i r

December 1, 2015

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

Foreword

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

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

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



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Conferences

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Cambridge EvolutionarySystemsBiology Mar2-4

Registration is now open for an exciting new meeting to be held at the Wellcome Genome Campus in Hinxton near Cambridge, UK, from 2 to 4 March 2016:

Evolutionary Systems Biology: from model organisms to human disease

<https://registration.hinxton.wellcome.ac.uk/events/-item.aspx?e=3D568> Confirmed speakers include Naama Barkai, Martin Kreitman, Michael Lynch, Isabel Gordo, Dan Tawfik, Andreas Wagner, and many others.

“tobias.warnecke@csc.mrc.ac.uk”
<tobias.warnecke@csc.mrc.ac.uk>

Durham NorthCarolina EvolutionaryMedicine Jun22-25

Registration and abstract submission are now open for the International Society for Evolution, Medicine and Public Health annual meeting, June 22-25, 2016, in Durham, North Carolina.

Full information at: <http://evolutionarymedicine.org/-isemph2016/> The second annual meeting of the International Society for Evolution, Medicine and Public Health will be June 22-25, 2016 in Durham, North Carolina, thanks to host Charles Nunn and the Triangle Center for Evolutionary Medicine.

PLENARY SPEAKERS include: Andrea Graham (Princeton), Carl Zimmer (NYC), Helen Ball (Durham, UK), Joshua Schiffman (Utah), Marion Koopmans (Erasmus), and Martin Blaser (NYU).

THE PROGRAM COMMITTEE WELCOMES YOUR ABSTRACTS for oral or poster presentations on all topics in the field of evolution, medicine, and public health.

Join the Society to get a substantial discount on registration fees. January 30, 2016 is the deadline for abstract submissions and early registration.

<http://evolutionarymedicine.org/isemph2016/> IMPORTANT DATES

Early registration discounts end: January 30, 2016.

Abstract submission deadline: January 30, 2016.

Abstract decision notification: early March, 2016

We look forward to seeing you for a memorable and exiting meeting!

Randolph Nesse, President

Sir Peter Gluckman, Vice-President

Cynthia Beall, Treasurer, and Chair, Program Committee

Charles Nunn, Chair, Local Arrangements Committee

PROGRAM COMMITTEE MEMBERS

-Cynthia Beall, Chair

-Joe Alcock

-Gillian Bentley

-Michelle Blyth

-JD Laman

-Randy Nesse

-Charles Nunn

-Frank Rühli

-Joshua Schiffman

Randolph Nesse <nesse@asu.edu>

Edinburgh PopGenetics Dec15-18

**** Pop Group 49 ****

This is a brief reminder that the 49th UK Population Genetics Group meeting will be held in Edinburgh (Scotland) from the evening of Tuesday 15th to lunchtime on Friday 18th December, 2015.

Full details of the meeting are available here:

<http://www.populationgeneticsgroup.org/> **** Registration is open, and talks are filling up fast****

Registration will close on 30th November. Around 130 people have registered already, and talk slots are nearly

full - although there is still plenty of space for posters.

As in previous years, talks are allocated first-come first-served in order of abstract submission. If you want to give a talk, please register and submit your abstract soon!

**** PopGroup T-shirts ****

This year you have the exciting opportunity (!) to purchase a PopGroup49 T-shirt for collection at the meeting.

Please see: <http://www.populationgeneticsgroup.org/-index.php?page=shop> We look forward to seeing you in Edinburgh this Christmas,

Darren Obbard On behalf of the Edinburgh PopGroup committee. EdinburghPopGroup@ed.ac.uk

- The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336.

“darren.obbard@ed.ac.uk” <darren.obbard@ed.ac.uk>

Edinburgh PopGroup Dec15-18 3

**** Pop Group 49 - last chance ****

This is a brief reminder that this is the last week you can register for the 49th UK Population Genetics Group, or submit a poster abstract.

**** Closing date is the 30th November ****

The meeting will be held in Edinburgh from 15th - 18th December, 2015. For full details, see <http://www.populationgeneticsgroup.org/> **** Pop Group T-shirts ****

This year you have the exciting opportunity (!) to purchase a PopGroup49 T-shirt for collection at the meeting. Please see: <http://www.populationgeneticsgroup.org/index.php?page=shop> We look forward to seeing you in Edinburgh this Christmas,

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GreifswaldU Environmental Adaptation Mar6-9

23-11-2015

Graduate Meeting Evolutionary Biology & Ecology

DEADLINE APPROACHING: Register before December 6th!

Responses to Environmental Change 6th to 9th March 2016 Greifswald University, Audimax, Domstrasse 11

On behalf of the sections Evolutionary Biology and Ecology of the German Zoological Society (DZG) it is our great pleasure to invite you to the 21st Graduate Meeting on Evolutionary Biology! We aim at bringing together MSc students, doctoral and postdoctoral researchers from all fields of evolutionary biology and ecology. The main topic will be responses to environmental change, though contributions from other fields will of course be considered as well. Thus, join in to present and discuss your research!

The meeting will last from Sunday, 6th March, starting at 7 p.m. with an icebreaker party until Wednesday, 9th March, around lunchtime. The program will include invited and contributed talks, a poster session, but also social events such as an excursion to the Baltic lagoons. Our confirmed keynote speakers are Prof. Luc de Meester (KU Leuven) and Prof. Jean Clobert (CNRS Moulis). Greifswald is a beautiful town located right at the Baltic Sea, surrounded by spectacular wildlife and scenery.

Accommodation: We have reserved a limited number of rooms in the youth hostel of Greifswald, which is within walking distance to the venue. Please sign up as soon as possible for the youth hostel (first come, first serve). Prizes for bed and breakfast per night are: single room 32.40 EUR, double room 26.40 EUR, 3-5 bed room 22.40 EUR.

To register, please send an email to Michael Schoener (schoenerm@uni-greifswald.de) before 6th December 2015 including information on whether you would like to (1) present a talk (15 + 5 minutes), a poster (please include a preliminary title for both) or none, and (2) stay in the youth hostel (please indicate type of room) or not. Participation is free of charge, though we cannot cover travel expenses and accommodation.

The meeting will be organized by the DFG funded

Research Training Group RESPONSE (Biological Responses to Novel and Changing Environments; www.uni-greifswald.de/response/).

Looking forward to seeing you in Greifswald!

Prof. Dr. Klaus Fischer Zoological Institute & Museum Greifswald University J.-S.-Bach-Str. 11/12 D-17489 Greifswald Phone: +49-3834-864266 Fax: +49-3834-864252

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Irvine California Comparative Phylogeography Jan8-9

January 8-9, 2016 In the Light of Evolution X. Comparative Phylogeography* Organizers: John C. Avise, Brian W. Bowen and Francisco J. Ayala

Beckman Center of the National Academies, Irvine, CA

In recent decades, phylogeographic thought has bridged and thereby enriched the fields of population genetics, phylogenetics, and conservation biology. Phylogeographic perspectives emphasize a genealogical approach to intraspecific evolution and have had transformative impacts on population biology, biogeography, systematics, ecology, genetics, and biodiversity assessment.

This Colloquium will be the tenth and final installment in what has been a series of annual symposia under the umbrella title In the Light of Evolution (ILE). ILE-X will survey the current state of phylogeographic thinking in the ecological and evolutionary sciences and bring together leading scientists representing the best of what phylogeography can offer biology writ large.

Registration is now open, <http://www.event.com/events/in-the-light-of-evolution-x-comparative-phylogeography/event-summary-7be22aee9e474556a53172ba5887ac29.aspx> Registration fee is \$180. Graduate students and postdoctoral researchers are eligible for discount fee of \$120. All meals, break and reception refreshments listed on the agenda are included in the registration fee. For more information, contact sackler@nas.edu. *In the Light of Evolution X: Comparative Phylogeography is co-sponsored by the University of California, Irvine.

Francisco J. Ayala 2001 National Medal of Science Laureate 2010 Templeton Prize Laureate University Professor Donald Bren Professor of Biological Sciences University

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NorthCarolinaStateU EmergingPlantDisease Mar23-24

There are talks throughout where evolutionary biology tools are being used to address disease spread- particularly plenary 3

A Symposium on Emerging Plant Disease and Global Food Security, March 23-24, 2016,

Hunt Library, NC State

The Emerging Plant Disease and Global Food Security Chancellors Faculty Excellence Program cluster at NC State will host an international symposium March 23-24, 2016 in Raleigh, to bring together experts that study emerging plant diseases and their arthropod vectors. Managing the threats of emerging diseases that affect agricultural crop plants requires experts in genetics, biology, evolutionary biology, epidemiology, climate change, metadata analysis, geospatial analytics and global development policy. We will synthesize new developments on emerging plant disease biology and discuss an expanding array of new technologies to gather, analyze, synthesize, and share knowledge about emerging infectious diseases of plants that affect global food security. Four sessions with keynote speakers, a closing panel and posters are planned.

Opening Keynote: Dr. Nina Fedoroff, Willaman Professor of Life Sciences and Evan Pugh Professor, Penn State University, Former Science and Technology Adviser to Secretaries of State Condoleezza Rice and Hillary Clinton

Plenary Session 1: Emerging Pathogens that Threaten Global Food Security. Keynote Speaker: Dr. Christopher Gilligan, Chair of the Cambridge University Strategic Initiative in Global Food Security

Plenary Session 2: Mathematical Modeling, Epidemiology and Geospatial Analytic tools to Track Outbreaks. Keynote speaker: Dr. Karen Garrett, Preeminence Professor, The Global Food Systems Institute and the Department of Plant Pathology, University of Florida.

Poster Session Huddles

Evening Reception, Dinner and Keynote Address: The State Club, Dr. Pamela Anderson, Director Agriculture Development, Bill and Melinda Gates Foundation

March 24, 2016

Plenary Session 3: Bioinformatic Tools to Track Emerging Pests and Pathogens. Keynote Speaker: Evolutionary Genomics of *Phytophthora infestans*, Dr. Michael Martin, UC Berkeley Center for Theoretical and Evolutionary Genomics

Plenary Session 4: Novel Detection Methods. Droning for Plant Pathogens along Highways in the Sky, Keynote Speaker: Dr. David Schmale, Department of Plant Pathology, Physiology, and Weed Science, Virginia Tech

Text Box: Closing Panel: Challenges in Tackling Emerging Diseases in Africa: Dr. Angela Records, International Agriculture Research Advisor, USAID, Apollinaire Djikeng, Director of Biosciences East Africa-ILRI Hub, Paul Weisenfeld, Executive Vice President, Global Development, RTI For further information and to register see the meeting www.go.ncsu.edu/epd Jean <jbbr@ncsu.edu>

Orlando Genetics Jul13-17

The Allied Genetics Conference (TAGC) will include a new meeting on Population, Evolutionary and Quantitative Genetics organized by Mike Lynch

Although most of the central venues of TAGC revolve around the long-standing model-organism meetings, the broad and overlapping fields of population, evolutionary, and quantitative (PEQ) genetics span these systems and more. Thus, in the interest of developing a fully comprehensive genetics conference, the Genetics Society of America (GSA) will also convene the first joint meeting for researchers in the latter fields. Topics will range from population genomics to molecular evolution to the dissection of the determinants of quantitative-trait variation, with equal emphasis placed on both model and non-model organisms across the Tree of Life. PEQ has a long history of both applied and theoretical research, and both will be an integral part of this meeting.

The intention here is to promote a strong cross-disciplinary network of colleagues performing both theoretical and empirical work. The meeting will consist of

a series of short talks, poster sessions, and plenary talks, and will be dovetailed with the model-organism venues to facilitate maximum interaction among those with similar conceptual interests. As many as 90 oral presentations will be delivered directly in the PEQ meeting, with dozens to hundreds of others with direct connections being given in the other model-organism sub-meetings. Time in the schedule will be set aside for the usual GSA-sponsored career-development workshops, including education-oriented, grant-writing, and networking sessions focused on strategies for building successful teaching methodologies and lasting collaborations.

GSA plans for PEQ to become the premier, regular gathering of graduate students, postdoctoral scholars, and established scientists in these central areas of genetics, ideally being established as another of the several periodic meetings sponsored and managed by the GSA. After nearly 100 years of research in population, evolutionary, and quantitative genetics, the time for holding such an exciting meeting is long overdue.

These topics will be featured at the conference and speakers will be selected from submitted abstracts in the following areas:

Population Genomics Experimental Evolution Genome Evolution Quantitative Traits Ecological Evolution Adaptation and Speciation Molecular Evolution

Abstract Submission opens January 4, 2016. Abstract Deadline March 23, 2016

www.genetics2016.org/peq CONFERENCE ORGANIZERS

Kirsten Bomblies, Harvard University

Michael Lynch, Indiana University

Lauren McIntyre, University of Florida

Bret Payseur, University of Wisconsin

Dmitri Petrov, Stanford University

Suzy Brown, CMP Senior Director Genetics Society of America 9650 Rockville Pike Bethesda, MD 20814 301/634-7341 301/634-7079 Fax sbrown@genetics-gsa.org

“Brown, Suzy” <sbrown@genetics-gsa.org>

Port Townsend EVOWIBO Apr15-17

EVO-WIBO (Evolution in Washington, Idaho, British Columbia, and Oregon) is a gathering of evolutionary biologists of the Pacific Northwest. This meeting is held every second year and typically attracts 120-140 researchers for a fun weekend of presentations and discussions. The 2016 meeting will be held April 15th-17th.

As it has from its inception, the conference will be held at Fort Worden State Park in beautiful Port Townsend, WA. This Washington state park is right on Puget Sound on the Olympic Peninsula, with a small marine science center, a nice beach, and many recreation opportunities nearby.

Registration:

Registration will open in early 2016.

Schedule:

A welcome reception will take place Friday evening April 15th. The meeting will run from Saturday morning the 16th through midday Sunday the 17th. More details soon.

Organization:

This year’s meeting is being organized by members at the University of Washington.

Website:

evowibo.org

Twitter:

@evowibo2016

robingreen525@gmail.com

Potsdam ICOP Palaeoenvironments Jun20-24

We would like to call your attention to our session “Palaeoenvironments in permafrost affected areas” at the 11th International Conference on Permafrost (ICOP) 2016 in Potsdam, Germany, 20-24 June 2016.

Held once every four years, the ICOP is one of the few

opportunities for a lively discussion with world leading scientists in palaeoecological disciplines as diverse as palaeontology, ancient DNA analysis, palynology, vegetation ecology, isotope and biochemistry, archaeology, and dating.

We focus on novel methodological developments in the relevant fields and on stimulating the combination and integration of various proxies, approaches and methodologies to improve reconstructions of ancient ecosystems and their response to climate change, formation of migration routes and barriers, human occupation, and herbivore - vegetation interaction.

Please communicate this announcement to members of your working groups and to cooperation partners.

For more information, please visit: <http://icop2016.org/index.php/program> and find our session under No.13

Please note that abstracts should be submitted online until 1st of December 2015. To submit an abstract, please register first following the link: <http://icop2016.org/index.php/abstracts> . Young Scientists are encouraged to apply for travel grants and workshops at <http://icop2016.org/index.php/young-researcher-activities/travel-grants> . We are looking forward to receive your contributions and to meet you at the ICOP.

Best wishes, from the conveners Laura Epp, Alfred Wegener Institute Helmholtz Centre for Polar und Marine Research, Germany James Haile, School of Archaeology, University of Oxford, UK Frank Kienast, Senckenberg Research Institute and Natural History Museum, Research Station of Quaternary Palaeontology, Germany

Laura Epp Research Associate Alfred Wegener Institute Helmholtz Centre for Polar und Marine Research Research Unit Potsdam Telegrafenberg A 43 14473 Potsdam, Germany Telefon:+49-331-288-2208 laura.epp@awi.de

“laura.epp@awi.de” <laura.epp@awi.de>

Roscoff France

50yrsMolecularHistory May9-13

Dear colleagues,

could you please share this announcement widely. We need to receive all applications for registration before February 1st 2016. See details below and under this link (http://www.cnrs.fr/insb/cjm/2016/Daubin_e.html).

Best regards,

Vincent Daubin

Molecules as documents of evolutionary history: 50 years after - Roscoff, Brittany, France.

May 9-13 2015

It is with the popularization of molecular tools and the disclosure of genome sequences that evolutionary models have become decisive in biology, in part because this information is simply so abundant and so complex that only a comparative method could reveal its meaning.

In 2016, it will be 50 years that Emile Zuckerkandl and Linus Pauling have laid the foundation of molecular phylogeny, and molecular evolution in general, in their seminal article entitled “Molecules as documents of evolutionary history”. The fundamental realization of this article was that DNA does not only encode the elementary functional elements of an organisms, it also harbours abundant information on the evolutionary history and life history traits of its ancestors.

The modelling of the evolutionary processes that generated extant genomes should reveal together the patterns of the diversification of life, the processes by which evolution proceeds at the molecular level, and how both are affected by external conditions. Our challenge today, as evolutionary biologists, is to bridge the gap between species ecology, life history traits, population dynamics, species phylogeny, gene phylogeny, genome structure, gene network and molecular mechanisms.

The recent years have seen tremendous developments in this direction, which we will attempt to review in this conference.

Invited speakers (provisional titles)

ABBY Sophie (Paris, France) Evolution playing a molecular building set: origins and distribution of bacterial secretion systems

ACHTMAN Mark (Warwick, United Kingdom) Ages of bacterial pathogens

ALM Eric (Cambridge, USA) Driving forces of microbiome evolution

DURET Laurent (Lyon, France) Biased gene conversion as a 4th evolutionary force

FARIA Nuno (Oxford, United Kingdom) Viral evolution

GALTIER Nicolas (Montpellier, France) Population genomics of non model animals: genetic diversity, adaptive rate and effective population size

GILBERT Thomas (Copenhaguen, Denmark) Ancient DNA, ancient genomes, and the hype of de-extinction

GOGARTEN Peter (Storrs, USA) Horizontal gene transfer: the pan-genome as shared genetic resource of a lineage

GRAUR Dan (Houston, USA) The vocabulary of molecular evolution and the transgressions of functional genomics: a rose by any other name would be misleading

GRIBALDO Simonetta (Paris, France) Phylogenomics and the tree of life

HEATH Tracy (Berkeley, USA) Molecular, morphological, and macroevolutionary models for dating species divergence times

KATZ Laura (Northampton, USA) The eukaryotic phylogeny

KOSIOL Carolin (Vienna, Austria) Polymorphism-aware phylogenetic models for species trees

LAGERGREN Jens (Stockholm, Sweden) Generative models of gene family evolution

LÁPEZ-GARCIA Purificación (Orsay, France) Diversity of microbial life

McLYSAGHT Aoife (Dublin, Ireland) Whole genome duplication

MORAN Nancy (Austin, USA) Symbiosis in evolution

PAGEL Mark (Reading, United Kingdom) Beyond molecular data: information and evolution in the cultural realm

PHILIPPE Hervé (Moulis, France) Models of sequence evolution

SANMARTIN Isabel (Madrid, Spain) Spatiotemporal evolution of lineages and biotas using Bayesian approaches

SEMON Marie (Lyon, France) Insights into making different types of the same organ using developmental transcriptomes as molecular microscopes

STADLER Tanja (Zürich, Switzerland) Modelling and inference of species diversification

SZÁLLÁSI Gergely (Budapest, Hungary) Genome scale reconstruction of phylogenies

TELFORD Maximilian J. (London, United Kingdom) The new animal phylogeny

WARNOW Tandy (Urbana, USA) New coalescent-based species tree estimation methods

Deadline for application: February 1st, 2016

Registration fee (including board and lodging)

430 \$ for PhD students 625 \$ for other participants

Application for registration The total number of partici-

pants is limited to 115 and all participants are expected to attend for the whole duration of the conference. Selection is made on the basis of the affinity of potential participants with the topics of the conference. Scientists and PhD Students interested in the meeting should send:

- their curriculum vitae - the list of their main publications for the 3 last years - the abstract of their presentation

to the Chairperson of the conference (vincent.daubin@univ-lyon1.fr) before the deadline. After it, the organizers will select the participants. Except in some particular cases approved by the

— / —

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>

San Antonio Texas Admixed Populations May 18-20

Conference Announcement: SMBE Satellite Meeting on the Genetics of Admixed Populations

May 18-20, 2016

San Antonio TX

Studies of admixed populations and the admixture process touch on topics central to evolutionary and molecular biology, including the dynamics of gene flow and hybridization, population expansions, and adaptation. Admixed populations have been leveraged to detect disease and phenotypic associations, elucidate mechanisms and timescales of speciation, and infer regions under selection. Acting as a natural experiment, admixed populations provide insight into unique adaptations of their parental populations, and evolutionary processes in related populations more generally. Admixture is also intimately linked with the recombination process, which shuffles segments of different ancestry, and is proven to vary in rate and location based on ancestry.

The primary goal of this satellite meeting is to emphasize the common theoretical and empirical underpinnings of the study of admixed human populations with the study of hybridization in other animals and even plants, opening up methods and study design from a specific

organism to a wider audience. We hope to bridge theoretical and data-driven approaches, starting a discussion on the suitability of methods to various systems and open questions that may be better resolved using an interdisciplinary approach, as well as considering ethical concerns associated with these studies.

Workshop sessions include:

Admixture as a dynamic process
 Novel Methods to Untangle Admixture
 Empirical Studies of Population History
 Admixture as a Mechanism for and Against Speciation
 Admixture and Selection: Phenotypic and Medical Implications
 Panel Discussion: Ethical considerations and Sampling Schemes

For a full list of confirmed speakers and information on local arrangements, please visit: <http://anthgen.org/-smbe2016> Registration and abstract submission will be available in early December

Please direct all questions to the conference organizers at smbe2016adm@gmail.com

Conference Organizers:

Amy Goldberg: agoldb@stanford.edu Ellen Quillen: EQuillen@txbiomed.org Heather Norton: heather.norton@uc.edu Joanna Malukiewicz: jmalukie@gmail.com Anne Stone: acstone@asu.edu

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(FuturePhy), karen.cranston@gmail.com (OpenTree), lukejharmon@gmail.com (Arbor)

The challenges to completing the Tree of Life and integrating data layers (NSF GoLife goals) are huge and vary across clades. Some groups have a nearly-complete tree but lack publicly available data layers, whereas other groups lack phylogenetic resolution or the resources to support tree / data integration. Partnering with Open Tree of Life and Arbor Workflows, FuturePhy will support a series of clade-based workshops to identify and solve specific challenges in tree of life synthesis and data layer integration.

Proposals should focus on challenges in completing the tree of life and integrating data layers for a clade or clades of interest. Cross-fertilization among systematists and other fields is desired, with focus on phylogenetic challenges, data layer development, and/or tree-data integration and analyses. How can developers of Arbor, OpenTree and other resources develop tools to help solve these challenges? What tools and infrastructure are needed for others to solve similar problems?

Proposals (using the *proposal template* < <https://docs.google.com/document/d/-1SJbzT2h1oPGOCGDsETfPjA18ZKDhrgIS9odZPuxySPw/-edit> >) should include (1) the status of the phylogeny for your group, including availability of trees in Dryad, TreeBASE or Open Tree of Life, (2) target data layers for the workshops, indicating the locations and accessibility of the data, (3) key biological questions that you would like to ask, given availability of trees and data layers, (4) roadmap to tangible products, with a clear timeline, (5) the challenges to phylogeny and data synthesis in your clade, with specific targets scoped for progress towards a solution during the workshop, (6) evidence that public data exist as a starting point or access to data that can be made public.

General plans & logistics. Each workshop may involve up to 10 funded attending participants, with the first set of workshops to happen in parallel at the same time and location. Open Tree of Life, FuturePhy and Arbor personnel will be there to demo, discuss and plan implementation. Each group should involve participants familiar with data analysis / integration / use of web services (e.g., in R, python). Groups can focus anywhere on the spectrum of completing phylogeny to integrating data layers. Groups agree to make assembled data or tools publicly available and to provide a post-workshop report after the event. Phylogenetic data will be incorporated into Open Tree of Life.

Evaluation. Proposals will be evaluated on (1) the feasibility of solving the specific challenges, including evidence for publicly-available data; (2) participant di-

UFlorida

FuturePhyProposalRequest Feb20

FuturePhy | OpenTree | Arbor *Request for Workshop Proposals: Clade Focused Tree-Data Integration Challenges*

RFP: 2 page proposals to fund small workshops and/or hackathons on completing the tree of life and integrating data layers for specific clades. *Proposal Deadline Extended to:* Nov. 15, 2015 *Meeting dates:* Feb 20-23, 2016 *Location:* Gainesville, University of Florida *Participants per workshop:* 10 maximum funded (virtual attendees possible) *Contacts:* mwestneat@uchicago.edu

versity (discipline, career stages, gender, ethnicity), (3) participant expertise, (4) how solving these challenges will benefit researchers in other clades, (5) potential for increasing public data, tools, products, and contributing trees to Open Tree of Life and related initiatives.

Mark W. Westneat Professor, Department of Organismal Biology and Anatomy University of Chicago 1027 E.

57th Street, Chicago IL 60637 (773) 702-2412 Lab Web site: <http://westneatlab.uchicago.edu> email: mwestneat@uchicago.edu

Research Associate, Field Museum of Natural History mwestneat@fieldmuseum.org <mwestneat@uchicago.edu>

mwestneat@gmail.com

GradStudentPositions

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Adelaide Australia PleistoceneMegafaunaAncientDNA

PhD positions in animal palaeogenomics and epigenomics at the Australian Centre for Ancient DNA (ACAD), Adelaide, Australia

We are currently conducting a number of projects investigating the genomic evolution of large mammals during periods of rapid environmental change occurring during the late Pleistocene and the Holocene (supported by Australian Research Council grants DP140104233, LP130100646, and FL140100260). Key aims of these projects are to:

- Resolve the evolutionary history of living and extinct megafaunal species
- Characterise demographic responses of animal populations to past environmental change
- Explore hybridisation, extinction and speciation events to better understand how ancestral genetic diversity is distributed among surviving populations
- Study the process of selection through time at the genomic scale, and investigate relationships between the strength and direction of selection and environmental variables
- Examine the role that epigenetic modifications play in facilitating rapid adaptation to environmental changes

Study species include a range of mammals, predominantly ungulates and carnivorans, for which ACAD already possesses a large collection of sub-fossil material. In addition, there is scope within these projects for collecting new specimens from museums and directly from the field. For example, we recently collected deep-frozen bison bones from Canadian gold mines to complement

our existing collection of bovid specimens. See blog posts at:

- <http://acadelaide.wordpress.com/2014/08/09/-digging-up-frozen-bones-in-gold-mines/> - <https://acadelaide.wordpress.com/2015/02/05/a-gold-mine-within-a-gold-mine/>

Multiple positions are available and are open to both international and domestic students. Applicants should have interest and a record of exceptional academic achievement in at least one of the following areas: ancient DNA, evolutionary biology, bioinformatics, or molecular biology. The projects will suit hard-working and motivated candidates who can demonstrate independent thinking and good communication skills. Training will focus on the generation and analysis of Next Generation Sequencing data, with potential for fieldwork and opportunities to gain skills in both molecular biology laboratory techniques and bioinformatics.

ACAD collaborates with a team of high-profile international researchers from Europe and the USA, and successful applicants will be co-supervised by Prof. Alan Cooper, Dr. Kieren Mitchell, Dr. Bastien Llamas and Dr. Julien Soubrier at ACAD, School of Biological Sciences, University of Adelaide. For more information about ACAD, check out <http://en.gravatar.com/-acadelaide> for links to Twitter, Facebook, our blog, recent publications and the official website.

Interested applicants are encouraged to send a resume, a cover letter, and the contact details of three referees to Dr. Kieren Mitchell (kieren.mitchell@adelaide.edu.au) or Prof. Alan Cooper (alan.cooper@adelaide.edu.au).

Both the Australian Department of Immigration and University of Adelaide expect international applicants to meet the English Language Proficiency (ELP) requirements. The ELP is based on high scores in IELTS (International English Language Testing

System) or TOEFL (Test of English as a Foreign Language). For further information please refer to <http://international.adelaide.edu.au/apply/admission/>. Competitive scholarships are available via the University of Adelaide Graduate Centre for domestic (<https://www.adelaide.edu.au/graduatecentre/scholarships/-research/>) and international students (<http://www.adelaide.edu.au/graduatecentre/scholarships/-research-international/opportunities/>). Scholarship applications close on the 31st of May 2016 for Australian domestic students and the 31st of January 2016 for international students.

Kieren Mitchell ARC Research Associate Australian Centre for Ancient DNA (ACAD) School of Biological Sciences University of Adelaide Darling Building, Rm 205b North Terrace Campus, Adelaide SA 5005 AUSTRALIA

CRICOS Provider Number 00123M

kieren.j.mitchell@gmail.com

AMNH NewYork RGGGS ComparativeBiology

American Museum of Natural History Richard Gilder Graduate School Comparative Biology Ph.D. Program

The AMNH RGGGS Ph.D. Program in Comparative Biology is training the next generation of biologists through an integrative approach that focuses on the history, evolutionary relationships, and interactions among species. It utilizes the Museum's strength and experience in research and training to educate a new generation of scientists and industry leaders. The AMNH provides exceptional support facilities for student research, with collections of more than 33 million specimens and artifacts. Training and research opportunities exist across a wide array of disciplines in comparative biology, incorporating research in systematic and evolutionary biology, paleontology, conservation biology, comparative genomics, computational biology, Earth history, anthropology, and biological and cultural diversity. Global fieldwork, with AMNH faculty, student-led or in partnership with others, provides exceptional research opportunities for students. RGGGS students may take advantage of RGGGS course cross-enrollment agreements with partner universities Columbia and the City University of New York. Armed with a Gilder School education, graduates will not only understand the history and diversity of life on Earth, but

may contribute to advances in human health, biodiversity conservation, and other related biological research fields as well.

This is an accelerated program, designed for students to complete their degrees in four years. Students will earn a minimum of 62 credits through a combination of coursework, teaching assistantships, and individual dissertation research. The Richard Gilder Graduate School will typically provide full financial support to students matriculating in the Comparative Biology Ph.D. Program.

SUMMARY OF APPLICATION REQUIREMENTS FOR FALL 2016 APPLICANTS Bachelor of Arts or Bachelor of Science or equivalent degree, from an accredited institution Official transcripts from all undergraduate/graduate institutions attended GRE (general) results (taken within the past five years–Institution Code 2471 or 1760) Three letters of support Statement of Academic Purpose (Essay 1: past research experience [length of up to 500 words] and Essay 2: proposed research interests [length of up to 500 words]) Interview (Final candidates will be interviewed) Faculty sponsor Application fee of \$50 Proficiency in English (TOEFL [100 or higher] or IELTS scores [total 7.0 or higher] are required for non-native English speakers, taken within the past 2 years)

Deadline: December 15, 2015

For more info, please visit: <http://www.amnh.org/our-research/richard-gilder-graduate-school/academics-and-research/fellowship-and-grant-opportunities/doctoral-and-graduate-student-fellowships> Anna Manuel <amanuel@amnh.org>

ANR France DrosophilaAdaptation

ANR-FWF PROJET: SUZUKILL Job description

We are looking for a PhD candidate to work, from early March 2016, on an international project (SUZUKILL) funded by the French Research National Agency (ANR) and Austrian Science Fund (FWF). The project, primarily in the field of applied entomology, is multidisciplinary involving collaborations among UE partners: University of Rennes 1 (UMR CNRS 6553 ECOBIO, France), University of Lyon 1 (UMR CNRS 5558 LBBE, France), University of Natural Resources and Life Sciences (IFFF, BOKU, Austria), and Insect Pest Control Laboratory (IPCL, Austria) from the Joint FAO/IAEA

Division of Nuclear Techniques in Food & Agriculture.

Short description The recent invasion of fruit production areas by the Spotted Wing *Drosophila* fly, *Drosophila suzukii*, is a major concern for Europe's soft fruit production sector. So far, little is known about the ability of *D. suzukii* to withstand winter low temperature stress, but laboratory experiments (on Japanese's populations) suggest that *D. suzukii* is relatively cold-intolerant. Cold tolerance of European populations is currently unknown and such knowledge is necessary to establish appropriate control measures. In addition, the mechanisms by which *D. suzukii* modulate thermal tolerance in response to environmental variables are poorly understood. Our objective is to gain fundamental knowledge on the genetic and plastic bases of thermal plasticity of European *D. suzukii* populations and analyse physiological mechanisms underlying thermal tolerance.

Objective of present PhD and specific skills required The present PhD (3 years) will focus on thermal tolerance of *Drosophila suzukii* (mainly cold). The candidate will be based in France at the University of Rennes 1 (UMR CNRS 6553 ECOBIO). The experiments will involve thermal assays associated with system-wide Omics approaches and will use a combination of disciplines ranging from genetics to molecular biology and biochemistry. The candidate should have expertise in stress physiology and evolutionary biology or molecular biology (or combination of all). A *drosophila* expertise will be a strong bonus.

Two other PhD positions will be available on the other aspects of the project and will be advertised separately.

General requirements for the position We ask a MSc degree in Biological or Evolutionary Sciences with multidisciplinary profile. In addition to the specific skills required, the candidate should be a team player with demonstrable experience in collaboration with ecologists, molecular biologists and/or entomologists. He/she should have excellent communication skills and should be fluent in English.

Conditions of employment PhD is full-time position.

Doctoral studies in France last 3 years. PhD programs are managed by Doctoral Schools (Ecoles Doctorales) that can be affiliated to one or several universities. Overall academic costs in France are low (around 400 euro/year tuition fees in universities) and there is an additional Government support aided to Foreign students in promoting research. Most of the PhD offers are linked to a scholarship of approximately 1700 euro/month (gross salary).

For information on French PhDs: <http://www.phdfrance.net/affpage.php?name=faq>

<http://www.phdportal.eu/countries/10/france.html>

The laboratory UMR CNRS 6553 ECOBIO at University of Rennes 1 (France). The team "PaysaClim" has recognized expertise in ecology, entomology, and particularly in insect's stress physiology. The team is coordinator of the "GDR biological invasions". The ECOBIO unit holds a cutting-edge environmental platform (ECOLEX) to conduct experiments in greenhouses and cages, an analytical platform (ABGC) for Omics and biochemical analyses, and a functional genomics platform (GEF) to conduct transcriptomics and molecular biology, with dedicated staff to support works. ECOBIO also holds a range of instruments to conduct thermal analyses. ECOBIO also holds facilities for insect rearing (*Drosophila* lines are already maintained). Short link : <https://ecobio.univ-rennes1.fr/> How to apply Contact Hervé Colinet (CR-CNRS; French coordinator) (herve.colinet@univ-rennes1.fr)

<http://herve-colinet.blogspot.fr/> The deadline for PhD applications is January 10, 2016 for a start in March, 2016. Reference letters, cover letter and CV should be submitted by January 10, 2016. All application materials should be submitted via email to PI with "SUZUKILL PHD APPLICATION" as subject.

[hcolinet <herve.colinet@univ-rennes1.fr>](mailto:hcolinet@univ-rennes1.fr)

Austria Population Genomics

PhD positions in Population Genetics and Adaptive Evolution

Multiple PhD positions are available in the Hancock lab in association with an ERC-funded project to reconstruct the history of *Arabidopsis thaliana* from the Cape Verde Islands. Research in the lab is aimed at understanding the genetic basis and evolutionary history of complex traits, with a particular focus on adaptive evolution.

We use an integrative approach to gain a detailed understanding of the adaptive process. This provides opportunities for a range of potential projects, where different sets of skills are employed. For example, there are potential projects for those with purely computational or purely molecular backgrounds; however, all projects will involve some degree of data analysis and computational work.

Approaches used in the lab include NGS sequencing,

trait-mapping using natural and recombinant populations, functional analysis using CRISPR/Cas9, computational modeling and population genetic analysis.

Ideal candidates are highly motivated and passionate about research.

Prior research experience in any of the following areas would be an advantage:

- Statistical analysis of genomic data - Programming - Arabidopsis/Plant Biology - Population Genetics/Quantitative Genetics - Adaptive evolution - Molecular biology

The working language of the laboratory and of the Institute is English.

Applications will be reviewed starting on December 1. To apply, send an email with the following materials to Dr. Angela Hancock at angela.hancock@univie.ac.at:

- A cover letter explaining why you are a good fit for the position - CV - Contact information for 3 references
angela.m.hancock@gmail.com

AWI Germany ComparativeBiology

The Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research (AWI) is a member of the Helmholtz Association (HGF) and funded by federal and state government. AWI focuses on polar and marine research in a variety of disciplines such as biology, oceanography, geology and geophysics thus allowing multidisciplinary approaches to scientific goals. The division of “Biosciences”, section “Coastal Ecology” at the Wadden Sea Station Sylt (Mathias Wegner / Christian Buschbaum) in cooperation with the department of Marine Ecology & Evolution at the NIOZ, Texel (David Thieltges) is seeking to appoint a

PhD candidate, section “Coastal Ecology”

Background and Tasks: Infectious disease strongly regulates populations. However, some forms of disease arise internally by mutation causing cancer. Usually, cancer cells are evolutionary dead ends that die with the individual carrying them. Recently, several contagious cancers have been discovered in marine bivalves. Here, cancer cells made the transition to parasitism by proliferating within and between populations, which may strongly affect bivalve population dynamics. The planned PhD project will investigate the ecological and evolutionary

roles of contagious cancer (disseminated neoplasia) in bivalves along a latitudinal gradient from temperate to arctic regions. The comparative approach will combine systematic observational data on the occurrence of neoplasia with experimental work investigating ecological effects in the field and in the lab. Practical work will include sampling and field experiments in the Netherlands, Germany, Denmark and Norway (including extended stays on Spitsbergen) and molecular and cytological techniques will be used to identify the evolutionary origins and consequences of neoplasia.

Requirements: You should hold a Diploma/MSc degree in biology with fundamental understanding of ecological and evolutionary principles. We are looking for a highly motivated, independent student that can conduct unsupervised work in remote field settings. Prior knowledge of experimental design, statistical analysis of large data sets, bioinformatics and some molecular and wet lab skills are a definite plus.

The position is limited to 3 years. The salary will be paid in accordance with the German Tarifvertrag des öffentlichen Dienstes (TVöD Bund), salary level 13 (66%). The place of employment will be List on Sylt. The Wadden Sea Station offers excellent experimental facilities and direct access to field sites in the national park “Schleswig-Holsteinisches Wattenmeer”, which was recently awarded the status of a world heritage site. AWI housing (shared flat) is available at reasonable rates. We offer you a multi-disciplinary, international, and fascinating professional environment with flexible working hours, state-of-the-art research equipment, and a first-grade infrastructure. Disabled applicants will be given preference when equal qualifications are present. The AWI fosters the compatibility of work and family through various means. Because of our engagement in the area of work-life compatibility we have been awarded the certificate “Career and Family”.

Applications including cover letter, letter of motivation, list of publications, degree certificates, CV and two names of referees should be submitted by November 30th, 2015 referencing code 117/D/Bio by e-mail (all documents merged into one PDF file) to: personal@awi.de.

For more information or questions regarding the project please contact Mathias Wegner ([Mathias.Wegner\(at\)awi.de](mailto:Mathias.Wegner(at)awi.de)).

Mathias.Wegner@awi.de

BaylorU SpeciationBiology

Baylor University - Speciation, Phylogeny, Behavior of East African Cichlids

The Danley Lab at Baylor University (<http://sites.baylor.edu/danleylab/>) seeks two Ph.D. students broadly interested in evolutionary biology using East African cichlid fish as a model system. The exact nature of the research will be developed by the student in collaboration with Pat Danley though it should relate to the lab's previous research on sexual selection (mate choice, aggression), phylogeography, and speciation.

Applicants with a background in behavioral, phylogenetic, and genomic methods are encouraged to apply. Applicants experienced with R and Python are a plus. Applicants should possess an M.S. degree or substantial undergraduate research experience, GRE Verbal and Quantitative Reasoning scores at or above the 70th percentile, GRE Analytical Writing score of 4.5 or greater, and undergraduate and graduate (if applicable) GPA of 3.5 or higher. Please review additional departmental admission guidelines (<http://www.baylor.edu/biology/index.php?id=3D68418>). Applicants must be able to begin by the fall of 2015.

The successful applicant will be admitted to the Department of Biology's Ph.D. program which provides 5 years of 12 month stipend (\$21,000, plus possible enhancements for outstanding students of up to \$8000/year). Admission also includes full tuition remission (up to a 20 credits per year), health insurance benefits (80% of cost of premium covered; cost to student ~\$450/y in 2015), and additional funding opportunities for travel to professional meetings, books and fees.

The Baylor's Department of Biology has an active graduate community of over 50 students and possesses strengths in the areas of integrative organismal biology and aquatic ecology. Waco, home of Baylor University, is conveniently located 90 minutes from both Dallas and Austin and was recently ranked as one of America's Awesomest (sic) Cheap Cities making it a perfect home for would be graduate students. <http://www.wisebread.com/10-of-americas-awesomest-cheap-cities> To apply, please send an email describing your background and interests to Dr. Patrick Danley (patrick_danley@baylor.edu). No application will be considered without previous interaction by email and telephone/skype with Dr. Danley. Complete appli-

cations need to be submitted to the Graduate School by January 25, 2016 to be eligible for all-expenses paid campus visit for the most qualified applicants. Applications will not be considered after February 15, 2016.

"Danley, Pat" <Patrick_Danley@baylor.edu>

Bonn Germany WaspEvolution

Job advertisement

The Center for Molecular Biodiversity Research at the Zoological Research Museum Alexander Koenig in Bonn (Germany) invites applications for a PhD position.

Starting date: not later than March 1, 2016, preferentially earlier. Duration: 3 years. Salary: German salary scale (TV-L E13, 65 %).

We are seeking a highly motivated PhD candidate with interest in evolutionary biology, chemical ecology, and genomics. The aim of the PhD project is to shed light on the evolution of an extraordinary case of intrasexual dimorphism in the cuticular hydrocarbon profile in a mason wasp (Hymenoptera: Vespidae), which is chemically mimicked by cuckoo wasps (Hymenoptera: Chrysididae). The PhD project is diverse and comprises (a) field experiments, (b) gene expression analyses, (c) RNAi experiments in the lab, (d) and comparative genomic studies. The project will be conducted at the Zoological Research Museum Alexander Koenig as well as at field sites in Southern Germany. It includes collaborative work with Prof. Dr. Thomas Schmitt at the University of Würzburg.

For further information, please visit: <http://gepris.dfg.de/gepris/projekt/282602688?language=-3Den> The successful candidate should be highly motivated, self-reliant, and has ideally prior experience (or must be eager to acquire expertise) in molecular lab procedures (e.g., DNA/RNA extraction, (qRT-)PCR) and/or bioinformatic analyses of RNA-seq data (e.g., transcriptome assembly, differential gene expression analysis). Candidates with prior expertise will be given preference. The successful candidate must hold a Masters in Biology (or receive it by not later than February 28, 2016) and hold a driver's license for driving cars in Germany. English communication skills are essential and some German knowledge might also be useful. The successful candidate will be expected to take actively part to the set-up and the organization of the research project.

The Center for Molecular Biodiversity Research at the Zoological Research Museum Alexander Koenig offers a peasant and mind-stimulating research environment with a modern molecular laboratory and a state-of-the-art high performance computing cluster. Current research projects in the department deal with the phylogeny of insects (e.g., www.lkite.org) and other groups of organisms, the organization and evolution of insect genomes (e.g., i5K), and the monitoring of biodiversity.

Applications should include:

(1) a cover letter with a short statement of motivation, (2) a short statement of research accomplishments (1 page), (3) a CV, (4) certificates, (4) a list of publications (if any), (5) the contact details of two academic referees.

Applications should be submitted electronically as a single PDF file until December 20, 2015 to: PD Dr. Oliver Niehuis, e-mail: o.niehuis@zfmk.de

The Zoological Research Museum is an equal opportunity employer. Women will be given preference in accordance with the country's equality law with the same qualifications. Handicapped applicants will be preferred in case of equal qualification. The position is remunerated according to TV-L E13 (65 %).

For any enquiries, please contact PD Dr. Oliver Niehuis via e-mail.

PD Dr. Oliver Niehuis, Center for Molecular Biodiversity Research, Zoological Research Museum Alexander Koenig, Adenauerallee 160, 53113 Bonn, Germany. Phone: +49 228 9122-356; e-mail: o.niehuis@zfmk.de

Oliver Niehuis <oliver.niehuis@gmail.com>

BrighamYoungU EvolutionaryBiol

GRADUATE POSITIONS IN THE DEPARTMENT OF BIOLOGY AT BRIGHAM YOUNG UNIVERSITY

The Department of Biology at Brigham Young University (BYU) welcomes applications from highly motivated students interested in joining our MS or PhD program in the Fall of 2016. The department (<http://-biology.byu.edu>) comprises a large and dynamic faculty spanning a diverse array of research areas including informal and collaborative research groups in Ecology, Evolutionary Ecology, Molecular Systematics, Bioinformatics, Conservation Biology, and Biological Science Education.

The Ecology and Evolutionary Ecology group is a diverse set of faculty working on plants, fungi, animals, and microbes in the areas of evolutionary ecology, conservation biology, biogeography, phylogeography, population and community ecology, biogeochemistry, environmental monitoring, evolutionary and ecological stoichiometry, and ecosystem ecology. There is a focus on integrating modeling, theory, and experimentation.

The Molecular Systematics group features faculty working in both model and non-model systems in experimental laboratory and field applications. Specific areas of research include genomics (experimental and computational), molecular evolution, population genetics, quantitative genetics, biogeography, phylogeography, and the evolution of genetic and infectious diseases.

Faculty in the Bioinformatics group maintain research programs in the genetics of human disease, systems biology, molecular evolution, and computational biology, including solutions for next generation sequencing applications.

The Biological Science Education group involves research at all levels of education, focusing on inquiry teaching, learning theory, and assessment of science pedagogy. Faculty in this focal group also use this platform for various outreach activities, including K-12 collaborative projects with the State Office of Education.

Each of the focal groups in our department maintain strong collaborative ties with each other, as well as other departments on campus, including Plant and Wildlife Sciences, Microbiology and Molecular Biology, Statistics, Computer Science, and the McKay School of Education.

Exceptional facilities and resources for carrying out research are available through the Monte L. Bean Life Science Museum (<http://mlbean.byu.edu>), Lytle Ranch Preserve (<http://mlbean.byu.edu/lytle/-Home.aspx>), the DNA Sequencing Center (<http://dnasc.byu.edu>), the Research Instrumentation Core Facility (<http://ricfacility.byu.edu>), the Microscopy Lab (<http://microscopy.byu.edu>) and the Fulton Supercomputing Lab (<https://marylou.byu.edu>). We recently moved into a new Life Sciences building with state of the art research facilities (experimental, wet lab, bioinformatics, etc.,)

BYU is located in Provo, Utah, where opportunities for world-class skiing, snowboarding, fly-fishing, kayaking, hiking, rock climbing, mountain biking, and many other outdoor recreational activities are less than 20 minutes from the lab. There are several festivals during the year in different areas of the county and Provo is home to a vibrant music scene. Salt Lake City is only 45 minutes travel by car or commuter rail.

For full consideration, complete applications should be received by January, 2016, but late applications can be considered through the first part of February. We strongly encourage prospective applicants to contact faculty members as soon as possible to discuss their research interests. Financial support for graduate students is competitive and comes from a variety of sources, including teaching assistantships, research assistantships, fellowships, and external research funds. Faculty Profiles can be accessed here:

<http://biology.byu.edu/Department/-FacultyandStaffDirectory.aspx> BYU is a private institution run by the Church of Jesus Christ of Latter-Day Saints. Students are required to uphold to a standard of personal conduct. For more information on this standard, please visit the Honor Code Office website (<https://honorcode.byu.edu/>).

“byron.adams@byu.edu” <byron.adams@byu.edu>

Cardiff SheepGenomics

Genome-wide analysis of maternal ability in the Lleyn sheep

Research Area: Agriculture and Food Security

This project will be carried out in collaboration with the Lleyn Sheep Society using cutting edge genomics tools to identify the genetic basis of some key and valuable

production characteristics of the Lleyn breed, especially maternal ability and prolificacy. The Lleyn is a very successful and productive breed that has grown rapidly for the last 15 years throughout the UK. Breed improvement is on-going in this forward-thinking Society through initiatives including detailed performance recording using powerful statistical tools, however, using genomics will speed up this process and the results are often more accurate. Genomic screening is now cost-effective in sheep, and selection using genome wide data is especially useful for the traits needed to be improved for this breed Vwhich are difficult to measure, which have low heritability, and/or are only expressed in one sex (e.g. female-specific characteristics such as milk production).

This project will therefore assess allelic variation across almost 700,000 markers in the sheep genome and a Genome-Wide Association Study (GWAS) will be carried out to identify genes associated with maternal ability and prolificacy and to estimate Genomic Breeding Values (GEBVs) for improvement. Both of these traits have been studied in other sheep, with eight candidate genes having been identified so far, but the genes or their variants controlling these characteristics may be different in the Lleyn.

An initial molecular analysis of the breed across its geographic range and pedigree will ensure that 'typical' and equivalent individuals are compared. The experiment will then be developed with the Society to encompass as many facets of the breed as feasible without compromising statistical power. Modern GWAS statistical approaches will be taken, with environmental, phenotypic and production variables included, accounting for relevant factors and their interactions. If a relationship between marker variation and production characteristics is identified, further gene-based analysis will be carried out to determine whether variation at one or more gene regions can be identified and developed to provide a test for the Society. Application of GWAS data to produce GEBVs to enhance the early selection power of performance recording systems would then be developed. This project will provide excellent training in modern agricultural technology, including genomics, statistical analysis and experimental design. It will be carried out in close collaboration with the Breed Society and SignetFBC performance recorders and will include substantial on-farm research.

Supervisors: Professor Michael Bruford & Dr Pablo Orozco-terWengel

Members of Supervisory Team and Collaborators based at other institutions: Dr John Adams & Signet BFC-
Start date: October 2016

Please note that mandatory activities will take place

during September 2016.

Duration: The SWBio DTP follows a 4-year PhD model. In the first year, students receive a range of directed training, tailored to support their PhD project. This includes a series of compulsory taught units (taught co-localised) and self-directed study that take up about one-third of the students available time. In addition students will experience two assessed laboratory rotations in year 1, each in separate disciplines but designed to provide focused training tailored for their PhD project. Students will be able to use their experiences with the laboratory rotations to refine their PhD projects on which they will concentrate from August of their first year. The PhD thesis must be submitted within 4 years of starting the programme.

Number of Studentships: The research projects listed above are two of a number of CASE projects and they are in competition for funding with other CASE studentships available across the SWBio DTP. Usually the project which receives the best applicant will be awarded the funding.

<http://courses.cardiff.ac.uk/funding/R2606.html> Pablo Orozco-terWengel <orozco_terwengel@yahoo.com>

CentralMichigan CichlidEvolutionBehavior

Graduate student (Ph.D. and Master's) positions available in Dr. Dijkstra's lab at Central Michigan University starting Fall 2016.

Are you interested in animal behavior and physiology? We are seeking students to join us in studying the evolution of behavioral and color diversity in East African cichlids. Our current projects combine behavioral experiments, molecular biology and endocrinology to address the physiological basis of color signaling in cichlid fish. We are seeking enthusiastic scientists with an outstanding academic record and experience at the molecular bench. More information about our research is available at: <https://www.cmich.edu/colleges/cst/biology/Pages/Peter-D.-Dijkstra.aspx> Information about the Master of Science program in Biology at CMU is available at: <http://www.cst.cmich.edu/units/bio/grad.htm>. For more information about the Ph.D. program in Earth and Ecosystem Sciences, please go to: <https://www.cmich.edu/colleges/cst/EES/Pages/Apply-to-the-EES-Program.aspx>. The biology department will be moving to a new

building next year with superb facilities to study aquatic organisms: https://www.cmich.edu/colleges/cst/biosciences_building/Pages/default.aspx Student funding is available in the form of research and/or teaching assistantships. In addition, tuition waivers are available.

Interested prospective students should contact Dr. Peter D. Dijkstra (dijks1p@cmich.edu) with (i) a statement of interest, (ii) current CV, (iii) transcripts (unofficial is sufficient), (iv) GRE scores (if you have them), and (v) contact information of 3 references. Review of applicants will start December 1, 2015.

"dijks1p@cmich.edu" <dijks1p@cmich.edu>

CentralMichiganU ConservationBiology

Position One Title: M.S. Assistantship for Black-Footed Ferret study Agency/Organization: Central Michigan University and Prairie Wildlife Research

Job Description: We are seeking a highly motivated M.S. student for the Department of Biology at Central Michigan University. The student will work as part of a larger team with Prairie Wildlife Research personnel to address questions of how plague affects the genetic makeup of black-footed ferrets, how a reintroduced population has diverged from the captive breeding colony, and related questions. The student will be working closely with Prairie Wildlife Research personnel as well as faculty at Central Michigan University.

The field component take place in remote South Dakota locations so the candidate needs to be willing to, and able to, work in challenging conditions. The project will involve extracting and analyzing DNA from buccal swabs, hair, and blood. Ideally, the selected candidate will have previous field experience (preferably with carnivores) and should be comfortable doing fieldwork in challenging conditions, as well as laboratory experience with genetic techniques. <https://www.cmich.edu/colleges/cst/biology/Pages/Bradley-Swanson.aspx> <http://prairiewildlife.org/> Location: Michigan and South Dakota Salary: RA and TA support through two years with two summers, which includes tuition waiver and stipend.

Qualifications: Applicants must have a Bachelors degree in biology, conservation, ecology, wildlife or a related field. In addition, a minimum GPA of 3.5 and combined

GRE score exceeding 310 are required. Preference will be given to those with field experience in harsh environmental conditions and genetic laboratory skills, as well as the ability to work independently and as part of a team. Interested applicants should send a copy of their CV, GPA, GRE, transcripts, contact information for three references, and a statement of interest highlighting your qualifications to Dr. Brad Swanson (brad.swanson@cmich.edu).

Position Two Title: M.S. Assistantship for Stellar Sea Lion Study Agency/Organization: Central Michigan University and Alaska SeaLife Center

Job Description: We are seeking a highly motivated M.S. student for the Department of Biology at Central Michigan University. The student will work as part of a larger team with the Alaska SeaLife Center using non-invasive genetic techniques to determine sex and individual identification of sea lions. The student will be working closely with Alaska SeaLife Center personnel as well as faculty at Central Michigan University. The field component take place in remote Alaskan locations so the candidate needs to be willing to and able to work in challenging conditions. The project will involve extracting DNA from scats collected from haul out sites. Ideally, the selected candidate will have previous field experience (preferably with large mammals) and should be comfortable doing fieldwork in challenging conditions, as well as laboratory experience with genetic techniques. <https://www.cmich.edu/colleges/cst/biology/Pages/-Bradley-Swanson.aspx> <http://www.alaskasealife.org/>

Location: Michigan and Alaska Salary: RA and TA support through two years with two summers, which includes tuition waiver and stipend.

Qualifications: Applicants must have a Bachelors degree in biology, conservation, ecology, wildlife or a related field. In addition, a minimum GPA of 3.3 and combined GRE score exceeding 310 are required. Preference will be given to those with field experience in harsh environmental conditions and genetic laboratory skills, as well as the ability to work independently and as part of a team. Interested applicants should send a copy of their CV, GPA, GRE, transcripts, contact information for three references, and a statement of interest highlighting your qualifications to Dr. Brad Swanson (brad.swanson@cmich.edu).

Brad Swanson Professor of Biology Director ATCG Labs Central Michigan University brad.swanson@cmich.edu 989.774.3377

“Swanson, Bradley Jay” <swans1bj@cmich.edu>

ChicagoBotanicGarden PlantConservation

PLANT BIOLOGY AND CONSERVATION GRADUATE OPPORTUNITIES

The Graduate Program in Plant Biology and Conservation is a partnership between Northwestern University (NU) and the Chicago Botanic Garden (CBG). Both MS and PhD degrees are offered. The programs offer a unique opportunity to study ecology, evolution, and environmental issues at the interface of basic and applied plant science. Students apply to the program through Northwestern University and take their courses at both NU and CBG with faculty from both institutions. The Plant Conservation and Science Center at CBG is a tremendous resource for students, and the Chicago region provides an excellent community at the forefront of research in conservation and sustainability. Faculty research areas include:

Climate Change Conservation Genetics Crop Evolution and Diversity Invasion Biology Paleobotany, Paleocology, and Paleoclimate Phylogenomics Plant Animal Interactions Plant Demography Plant Reproductive Ecology Plant and Fungal Systematics and Evolution Restoration Ecology Soil Ecology and Fungal Diversity

To learn more, contact the program director, Nyree Zerega (nzerega@chicagobotanic.org) or visit our websites: Graduate Program: <http://www.plantbiology.northwestern.edu/> Plant Science Center: http://www.chicagobotanic.org/research-labs.php?expanddiv=plant_conservation Application deadlines: PhD: December 1, 2015 MS (thesis-based): February 15, 2016 MS (internship-based): Applications will be reviewed beginning February 15 and review will continue through April 30, 2016. Admissions are on a rolling basis.

nzerega@chicagobotanic.org

DurhamU EvolutionaryEcology

Three competitive PhD studentship opportunities are available in evolutionary and ecological genetics at

Durham University, UK. These 3.5-year fellowships provide a full tuition fee waiver at Durham University, a competitive living stipend, and a considerable research allowance. For more information about these projects see here < <https://sites.google.com/site/andreannajewelch/people/graduate-student-opportunities> > or contact Dr. Andreanna Welch at a.j.welch@durham.ac.uk.

1) Reconstructing the evolutionary history of ecological dynamics and extinction risk in Procellariiform seabirds

During their evolutionary history, birds have colonized the open oceans beyond the continental shelves only rarely. The Procellariiformes (albatrosses, shearwaters, storm- petrels, etc.) are by far the largest group of oceanic birds, but their molecular phylogeny is poorly known. As part of an international collaboration, the student will use capture enrichment and next generation sequencing methods to collect a rich genomic dataset and resolve the phylogeny of all extant and recently extinct Procellariiformes, at and below the species level. This will advance our understanding of the evolutionary history of oceanic birds, allow exploration of the role of ecology in diversification, and inform conservation management of this globally-threatened group.

Eligibility: All nationalities Deadline for consideration: January 4th, 2016

2) The effects of maternal stress response and microbiome on seal pup condition and survival Co-supervised with Sean Twiss

Maternal effects are now recognised as important contributors to phenotypic variation. One potential mechanism that has been largely overlooked is via the transfer of beneficial bacteria during birth and through lactation. Studies in humans have shown that these bacteria provide many health benefits to the young, but that communities transferred can be influenced by the mother's condition and stress level. Adult grey seals (*Halichoerus grypus*) exhibit consistent individual differences in behaviour with some mothers showing high levels of responsiveness to stressors while others show little. The student will apply recently developed metagenomic techniques to investigate this potential short-term fitness consequence of maternal coping style. Seals are among the few animal species for which coping styles have been identified and linked with fitness consequences in wild populations. However, the mechanisms through which behavioural responses to stress modulate offspring condition and survival remain essentially unknown. Given that wildlife are increasingly impacted by anthropogenic influences, and that behaviour is often the first form of response to environmental changes, this project will provide important insights towards understanding how

stress may influence individual fitness as well as future population trajectories.

Eligibility: Primarily UK nationals Deadline for consideration: January 15th, 2016

3) Tracking the impact of Holocene environmental change in Patagonia on pinniped distribution, abundance and dispersion using ancient DNA Co-supervised with Rus Hoelzel

When environments change, as during the current process of anthropogenic climate change, regional populations may respond by migrating to track suitable habitat, they may expand, decline or go extinct, or they may adapt. In this study the student will employ next generation sequencing methods, ancient DNA, and coalescent analyses to determine past demographic profiles of two sympatric pinniped species with contrasting life histories along the coast of Patagonia, a region of major transitions during the Holocene. Thus students will have the opportunity to test hypotheses about the importance of various environmental parameters. Understanding these dynamics will become increasingly critical for effective management and nature reserve design to promote conservation in the future as environments change. This will also improve our understanding of the process of biodiversity evolution, which is determined by both effective population size and connectivity.

Eligibility: Primarily UK nationals Deadline for consideration: January 22nd, 2016

Durham University is consistently rated as one of the top 100 universities in the world. Located in northeast England, the university is situated in a scenic town and lies within a 20-minute train ride of the thriving city of Newcastle. The department offers a supportive research-driven environment with projects ranging from the cellular to the ecosystem level. For more information see here < <https://www.dur.ac.uk/biosciences/> >.

To apply please send an email to a.j.welch@durham.ac.uk with 1) a two-page covering letter detailing your reasons for applying and why you have

— / —

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>

DurhamU HolocenePinnipeds

Competitive PhD studentship (sponsored by NERC) available to UK nationals at Durham University:

Tracking the impact of Holocene environmental change in Patagonia on pinniped distribution, abundance and dispersion using ancient DNA

When environments change, as during the current process of anthropogenic climate change, regional populations may respond by migrating to track suitable habitat, they may expand, decline or go extinct, or they may adapt. Adaptation to climate change may be plastic or by the process of natural selection, and there is empirical evidence for both. Understanding these dynamics will become increasingly critical for effective management and nature reserve design to promote conservation in the future as environments change. This will also improve our understanding of the process of biodiversity evolution, which is determined by both effective population size and connectivity. In this study the student will employ next generation sequencing methods, ancient DNA and coalescent analyses to determine past demographic profiles of two sympatric pinniped species with contrasting life histories. The study will focus on the marine coastal habitat off Patagonia, a region of major transitions during the Holocene, providing the opportunity to test hypotheses about the importance of various environmental parameters. Ancient materials for the study have been acquired from middens left by indigenous people along the coast.

For further details please see:

http://www.iapetus.ac.uk/wp-content/uploads/2015/11/IAP_15_25-DUR-Hoelzel.pdf and contact Rus Hoelzel (a.r.hoelzel@dur.ac.uk). Application materials should include a c.v., academic records and at least two letters of reference sent to a.r.hoelzel@dur.ac.uk by January 22, 2016.

“HOELZEL A.R.” <a.r.hoelzel@durham.ac.uk>

GeorgiaSouthernU PlantEvolution

M.S. Position, Plant Evolution and Systematics, Georgia Southern University

The Schenk lab at Georgia Southern University invites applicants for a Masters Degree in plant systematics and evolution, starting Fall semester, 2016. Our lab group is interested in how botanical diversity has been shaped by the interactions among morphological, ecological, and species diversification. We apply statistical phylogenetic approaches that quantify and incorporate molecular, morphological, and ecological variation to plant systems in order to understand the evolutionary processes of how and why species diversify.

An ideal candidate will have interest in using plant systems to better understand the evolutionary processes of diversification by applying statistical phylogenetic approaches. Competitive students that meet all requirements will be supported with either a teaching or research assistantship.

Interested students should contact Dr. John Schenk (jschenk@georgiasouthern.edu) prior to submitting an application (the earlier the better). When sending an initial e-mail of interest, please include a curriculum vitae with GRE scores (if taken) and GPA.

For more information, visit the Schenk lab website (<https://sites.google.com/a/georgiasouthern.edu/-schenk>) and the Department of Biology's website (<http://cosm.georgiasouthern.edu/biology>). More information about the Biology graduate program can be found at the departmental web page (<http://cosm.georgiasouthern.edu/biology/graduate-program-2/>).

Additional questions about the GSU graduate program can be directed to the Graduate Student Program Director: Dr. Checo Colon-Gaud (jccolon-gaud@georgiasouthern.edu). For full consideration, the application deadline is March 1st, 2016.

John J. Schenk, Ph.D. Assistant Professor of Plant Biology Georgia Southern University Herbarium (GAS), Curator Department of Biology 4324 Old Register Road Georgia Southern University Statesboro, GA 30460-8042 Office: 2260 Biology Building Office phone: (912) 478-0848 Lab website: sites.google.com/a/georgiasouthern.edu/schenk Herbarium website: sites.google.com/a/georgiasouthern.edu/gasherbarium

jschenk <jschenk@georgiasouthern.edu>

GreifswaldU MathematicalPhylogenetics

Dear Evoldir users,

My working group (Discrete Biomathematics) at Greifswald university (in north-eastern Germany) has an opening for a PhD position. My research focus is mathematical phylogenetics. Good knowledge of graph theory and combinatorics is expected. Biological knowledge is advantageous, but not required (however, candidates should be interested to learn about biological processes). To see the details, either click the following link (sorry, the information there is in German only) <http://www.uni-greifswald.de/informieren/-stellenausschreibung/oeffentlich/wissenschaftliches-personal/institut-fuer-mathematik-und-informatik-15sa12.html> or contact me directly! I am very happy to explain everything in English, too.

The payment scheme is 50% 13 TV-L, and the job includes 2 hours of teaching per week (maths tutorials for students of mathematics and biomathematics). No knowledge of German is required at first (Master degree tutorials can also be held in English, and the working language at uni is English, of course, too), but after a year your German should be good enough to do undergraduate (i.e. Bachelor degree level) teaching in German if required.

Please spread the word and tell interested candidates about this job opening!

Kind regards, Mareike

Mareike Fischer

For more details on my research, please see: www.math-inf.uni-greifswald.de/index.php/-mitarbeiter/768-prof-mareike-fischer Mareike Fischer <email@mareikefischer.de>

Heidelberg 2 Phyloinformatics

Dear Community,

Two PhD scholarships available in my group at the Heidelberg Institute for Theoretical Studies (HITS gGmbH) in Heidelberg, Germany

The Scientific Computing group (www.exelixis-lab.org), the home of RAXML, at the Heidelberg Institute for Theoretical Studies (HITS gGmbH) is soliciting applications for a PhD positions in the broader area of Phyloinformatics.

HITS gGmbH is a private non-profit research institute carrying out multidisciplinary research in the computational sciences. It receives its base funding from the HITS Stiftung. PhD students will be inscribed at the computer science department of the Karlsruhe Institute of Technology (KIT), which is among the top 5 CS departments in Germany.

Applicants shall have a background and Master's degree in bioinformatics or computer science and excellent C/C++ programming skills. Expertise in the area of high performance computing will be a plus.

Our research mainly focuses on:

- Computational Molecular Phylogenetics
- Large scale evolutionary biology data analyses
- Supercomputing
- Quantifying Biodiversity
- Next and 3rd Generation Sequence Data Analysis

Secondary research interests include, but are not limited to:

- Emerging parallel architectures (GPU, Xeon PHI)
- Discrete algorithms on trees and sequences
- Population Genetics

The starting date is flexible. To apply, please enter your application via the following link: (<https://application.h-its.org/intern/register.php?id=ua6d971>)

Applications must be submitted by December 31st, 2015.

Please note that applications not submitted via the online system will not be considered.

Please contact Alexandros Stamatakis (Alexandros dot Stamatakis at h-its dot org) if you have any further questions.

Alexis

– Alexandros (Alexis) Stamatakis

Research Group Leader, Heidelberg Institute for Theoretical Studies Full Professor, Dept. of Informatics, Karlsruhe Institute of Technology Adjunct Professor, Dept. of Ecology and Evolutionary Biology, University of Arizona at Tucson

www.exelixis-lab.org alexandros.stamatakis@gmail.com

IMPRS Germany EvolutionaryBiol

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

For 2016, the IMPRS offers the following PhD projects:

The Anseriform Genome Project: Comparative Genomics of Waterfowl (Robert Kraus, Inge Müller, Martin Wikelski, MPIO Radolfzell)

Collective behaviours and social structure in animal populations (Damien Farine, MPIO Radolfzell / University Konstanz)

Information flow and social influence in hierarchical social groups from neurobiological mechanisms to ecological outcomes (Alex Jordan, MPIO Radolfzell / University Konstanz)

Molecular mechanisms of the repeated evolution of adaptive color patterns in cichlid fishes (Axel Meyer + Claudius Kratochwil, University of Konstanz)

The evolution of avian sweet taste perception (Maude Baldwin, MPIO Seewiesen)

Bird Behavioural Ecology (Wolfgang Forstmeier, Mihai Valcu, Bart Kempenaers, MPIO Seewiesen)

Avian Evolutionary Genetics (Wolfgang Forstmeier, Jakob Mueller, MPIO Seewiesen)

Collective Animal Behaviour (Iain Couzin, MPIO Radolfzell / University Konstanz)

Two open PhD positions for own proposal elaboration within Organismal Biology (Advisor to be contacted with an own research proposal)

For a list of all available PhD projects visit

www.orn.mpg.de/projects . All students accepted to the program will be supported by stipends or contracts. The program offers a dedicated teaching program, high quality research experience, and outstanding research facilities in an inspiring research and living environment. The working language is English. Each PhD student receives individual supervision and mentoring and is guided in her/his research work by a PhD advisory committee.

Deadline for the application is January 15, 2016. Interviews with the applicants are scheduled for Mid-March. Candidates accepted into the program may start latest September 2016. The Max Planck Society and the University of Konstanz are equal opportunity employers.

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

Application: For the online application process visit www.orn.mpg.de/2383/Application . More information at www.orn.mpg.de/IMPRS and www.facebook.com/OrganismalBiology . Maeggi Hieber Ruiz <maeggi.hieber@uni-konstanz.de>

IST Austria EvolutionaryBiol

The Institute of Science and Technology Austria (IST Austria) is looking for highly qualified candidates to apply for our ISTScholar PhD program. We offer fully-funded PhD positions in a dynamic research environment on the outskirts of Vienna. The Institute currently has 40 research groups, including five in evolutionary biology (Barton, Bollback, Cremer, Guet and Vicoso); in addition, there is a thriving evolution community in the Vienna area (see <http://www.univie.ac.at/evolvienna/>)

Our PhD program is characterized by innovative training with a special focus on interdisciplinarity, close mentoring within small research groups, and access to outstanding facilities. Students spend the first year completing coursework and rotations before choosing a thesis group and passing the qualifying exam. Our PhD graduates have gone on to top positions in academia and industry all over the world.

Students with a bachelor's or master's degree in biology, neuroscience, mathematics, computer science, physics, and related areas are encouraged to apply. We offer internationally competitive salaries co-funded by an EU Marie-Curie-Sklodowska grant, full health benefits, and

subsidized on-campus housing in the first year.

For more information about the ISTScholar PhD program and application process, as well as faculty profiles, please visit our website at <http://ist.ac.at/graduate-school>, or come to our Student Open Day on November 20th (register at: <http://ist.ac.at/studentopenday>). The deadline for PhD applications is January 8th 2016 for a start date in September 2016.

Nick Barton nick.barton@ist.ac.at

“nick.barton@ist.ac.at” <nick.barton@ist.ac.at>

KonstanzU Comparative Genomics Birds

In the framework of the International Max Planck Research School (IMPRS) for Organismal Biology at University of Konstanz, Germany, I am happy to advertise a funded PhD student position in comparative genomics of waterfowl. Together with other positions (topics in ecology, evolution, collective behaviour...) in this year's cohort I wish to invite you to read my detailed project description online under

<http://www.orn.mpg.de/3632382/Kraus2016> In brief, we will together analyse 50+ freshly created genomes of ducks, geese, and swans (and of course whatever else we find in the data bases for comparison) for either (or a combination of):

- Hybridisation/Speciation Genomics - Evolutionary Genomics of the Immune System

Doesn't this sound great? -> <http://www.orn.mpg.de/3632382/Kraus2016> Contact robert.kraus@uni-konstanz.de for questions and I will either respond directly or redirect to the relevant person.

“robert.kraus@uni-konstanz.de” <robert.kraus@uni-konstanz.de>

Leicester SocialInsectEvolution

Social hymenoptera (ants, bees and wasps) are important emerging models for epigenetics . This is based on theoretical predictions for a role for genomic imprinting in their social organisation and on data showing a fun-

damental role for methylation in their biology. Genomic imprinting is allele specific expression in diploid individuals, where expression is dependent on the sex of the parent from which an allele was inherited. In mammals and flowering plants, genomic imprinting is often associated with methylation marks passed from parents to offspring . Given the diversity within the Hymenoptera, especially in social structure, this research area would benefit from an increase in the breadth of the species studied. Bumblebees, which are singly mated, have the advantage that theory provides simple clear predictions for what sort of genes should be imprinted. The recently sequenced genome of the bumblebee, displays a full complement of genes involved in the methylation system. Our lab has demonstrated that methylation is important in worker reproduction in this bumblebee. We also recently found allele specific expression in *Bombus terrestris* worker reproduction genes using a candidate gene qPCR based approach. Please see the particulars for more details.

The PhD student will carry out all experiments and bioinformatic analysis under the guidance of the supervisory team. They will be provided with training in R, a powerful and increasing popular statistical programming language, Python, a general-purpose, high-level programming language widely used in bioinformatics, molecular biology, RNA-seq, anatomical dissection and neuroanatomy, in situ hybridisation, confocal microscopy and bee husbandry as required.

We are an equal opportunities employer and particularly welcome applications for Ph.D. places from women, minority ethnic and other under-represented groups.

Funding Notes

British nationals who have lived in the UK all their lives are eligible. Also eligible are non-British nationals who have settled status AND have been resident in the UK for 3years immediately prior. EU nationals not resident in the UK are eligible for matched funding studentships.

Please apply to both funding streams

Centa The power behind the throne; the role of methylation in bumblebee queen worker differentiation <http://www.centa.org.uk/themes-organisms/130/> <http://www.centa.org.uk/apply/>
25 January 2016 Deadline MIBTP Imprinted genes in a social insect; a transcriptomics approach <http://www2.le.ac.uk/colleges/medbiopsych-research/Postgraduate%20Opportunities/mitbp-at-the-university-of-leicester/additional-information/mallon-proposal> <http://www2.le.ac.uk/colleges/medbiopsych-research/Postgraduate%20Opportunities/mibtp-documents/Guidancenotes.pdf/view> 10 January

2016.Deadline Please contact me (ebm3@le.ac.uk) if you would like to discuss the project informally

References

Amarasinghe, H. E., Clayton, C. I. & Mallon, E. B. (2014) Methylation and worker reproduction in the bumble-bee (*Bombus terrestris*). /Proc. R. Soc. B Biol. Sci/. 281, 20132502

Yan et al (2014) Eusocial insects as emerging models for behavioural epigenetics. /Nat Rev Genet/ advance online publication.

“Mallon, Eamonn B” <ebm3@leicester.ac.uk>

[beckers/index.aspx](https://www.murraystate.edu/-/oliver-beckers/index.aspx) Information on the Department of Biological Sciences at MSU:

<https://www.murraystate.edu/-/academics/CollegesDepartments/-/CollegeOfScienceEngineeringandTechnology/-/CollegeOfSciencePrograms/biologyDept/faculty/oliver-beckers/index.aspx> Oliver M. Beckers Assistant Professor Department of Biological Sciences 1112B Biology Building Murray State University Murray, KY 42071-0009 Phone: (270) 809 6054 (Office) Homepage: <http://www.murraystate.edu/-/academics/CollegesDepartments/-/CollegeOfScienceEngineeringandTechnology/-/CollegeOfSciencePrograms/biologyDept/faculty/oliver-beckers/index.aspx> Oliver Beckers <obeckers@murraystate.edu>

MurrayStateU Kentucky EvoAnimalCommunication

Graduate positions (M.S.) in evolution of animal communication at Murray State University (KY).

The Beckers' Lab at Murray State University accepts M.S. students that are interested in investigating the evolution of animal communication starting in spring or fall of 2016. Our research focuses on two areas: (1) The effect of the physical environment on the evolution of male mating signals (i.e., phenotypic plasticity) and its ramifications on female preferences. (2) The evolutionary arms race between eavesdropping parasitoids and their calling hosts. We use cricket and katydid species as model organisms to address our questions.

Qualifications: We seek driven, enthusiastic, and focused students to join our lab. Successful applicants have a B.S. in biology, ecology, or related discipline. Experience with insects and acoustics preferred, but not necessary. Teaching assistantship and housing at Hancock Biological Station on Kentucky lake are available. To Apply: Email a letter of application indicating your research interests and career goals, a curriculum vitae including undergraduate GPA and GRE scores to Dr. Oliver Beckers: obeckers@murraystate.edu

Deadline: review of applications starts immediately and position is open until filled.

Please find more information on Dr. Beckers' research here:

<https://www.murraystate.edu/-/academics/CollegesDepartments/-/CollegeOfScienceEngineeringandTechnology/-/CollegeOfSciencePrograms/biologyDept/faculty/oliver-beckers/index.aspx>

NorthernArizonaU ConiferAdaptation

NArizU.Epigenetics.Conifers.GlobalChange

PhD opportunity N.Ariz.U.: Evolutionary ecology /Epigenetics/Global Change Impacts/Conifers

We anticipate filling two Ph.D. positions to work on a NSF Macrosystems Biology project at Northern Arizona University, Collaborative research: Blending ecology and evolution using emerging technologies to determine species distributions with a non-native pathogen in a rapidly changing climate, to start in either June or August 2016. This project is a multi-university collaboration examining the interacting evolutionary and ecological responses of southwestern white pine (SWWP; *Pinus strobiformis*) to climate change and an invasive pathogen from local to regional scales.

A PhD position in evolutionary ecology with emphasis on epigenetics will be based in the Department of Biological Sciences under the supervision of Dr. Amy Whipple with collaborators in the School of Forestry. This graduate student would develop a project examining aspects of epigenetic inheritance and modification in determining the traits of SWWP related to phenology, drought, climate, or disease.

Three years of research assistantship funding (stipend + tuition and health insurance) are available for each position; with additional funding through teaching assistantships or possibly fellowships. Start date is June 1, 2016 or August 22, 2016. For more information contact Amy Whipple, amy.whipple@nau.edu (928) 714-

0409. Strong candidates may qualify for the NAU Presidential Fellowship Program (<http://nau.edu/GradCol/-Financing/Presidential-Fellowship-Program/>) as well.

To apply, submit graduate application to the NAU Biology Department and a rAA@sumAA© and cover letter to either Amy Whipple. Review of applications will begin immediately.

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

NorthernMichiganU AvianGenomics

Graduate Position (Masters) in Avian Genetics/Genomics

I am seeking a new Masters student to join my lab in Fall 2016. The successful applicant will have the opportunity to develop an independent project within the scope of the core research interests of the lab: avian genetics and genomics. We use molecular tools to address evolutionary, behavioral and ecological questions. Our work has largely focused on loons and chickadees, and graduate student theses that focus on these species will benefit from a large established tissue archive and growing genomic database. Northern Michigan University sits on the shores of Lake Superior in Michigan's beautiful Upper Peninsula, providing ample opportunities for avian field work that would compliment current research activities underway in the lab.

Applicants should possess a strong understanding of basic principles of genetics and evolutionary biology and should preferably have prior research experience. Students with an interest in using genetic data to answer conservation questions are preferred. Additional desirable qualities include an aptitude for working independently, strong communication and analytical skills, enthusiasm for research in both the field and the lab, evidence of an ability to think creatively, a good academic record, and computer scripting skills. Successful applicant must meet the NMU Biology graduate program requirements (<http://www.nmu.edu/biology/-node/80>). Teaching assistantships (tuition/fee waiver, annual stipend, laptop computer) are available to qualified applicants.

Potential candidates should contact Alec Lindsay by email (alindsay@nmu.edu) including a brief statement of research interests, a CV, and contact information for three references. Review of applications will begin immediately and continue on a rolling basis. A decision

on at least one award will be made by 1 February.

alec.lindsay@gmail.com

NorwegianUScienceTech FishEvolution

PhD position in Fish Ecophysiology

A PhD studentship position is available at the Department of Biology. The appointment duration is 3 years. The position is financed by the NTNU.

Job description The theme of the PhD position is thermal biology (physiology, behaviour and evolution) of fish. The Norwegian University of Science and Technology (NTNU) in Trondheim Norway is seeking a new graduate student (PhD studentship) to research thermal biology in fish. The position starts early 2016.

As climate change is making aquatic habitats warmer, fish can respond by migration, acclimatization or adaptation, but most often combinations of these strategies. This project will investigate both the acclimatization and adaptation potential of fish to thermal challenges. The PhD project aims to fill major knowledge gaps in the field of thermal biology. The main questions that will be addressed are: Which physiological mechanisms limit thermal performance and tolerance? How adaptable are these mechanisms? What are the connections between thermal physiology and behaviour? Which physiological and behavioural traits are most important for ecological fitness in a warming world? To answer these questions the PhD student will use various physiological and behavioural measurements. The techniques will likely include in-vivo animal experiments, thermal exposures, multi-generation experiments, exercise respirometry, electrophysiology, automated behavioural analysis and more. The work will mainly be done at the well-equipped labs at NTNU, but research abroad is also likely. Ecophysiology and the study of anthropogenic stressors, including the effects of climate change, is a priority research area at the Department of Biology. The zoophysiology research group has broad national and international research collaborations and the permanent scientific staffs are recognized as international leaders and researchers in their respective disciplines. The Jutfelt lab conducts ecophysiological research on fish at NTNU, but also abroad at locations such as Kristineberg Marine Station in Sweden, Lizard Island Research Station in Australia and Polar Regions. Further information is available

at: http://bioenv.gu.se/english/staff/jutfelt_fredrik The appointment will be made according to the general regulations regarding university employees, wage level 50, gross NOK 430 200 per year before tax. There is a 2% deduction for superannuation contribution.

More information about the position:

<http://www.jobbnorge.no/ledige-stillinger/stilling/-118262/phd-position-in-fish-ecophysiology> Further information can be obtained from Associate Professor Fredrik Jutfelt, Department of Biology, NTNU, fredrik.jutfelt@ntnu.no

Information about the Department can be found at: <https://www.ntnu.edu/biology> The application Applications with a short motivation text, CV, copies of transcripts, certificates from both Bachelor and Master, possible publications and other scientific works, Master thesis, and reference letters should be submitted. List contact details to three references that you have worked with.

Applications must be submitted electronically through www.jobbnorge.no. Application deadline: 30 November 2015; Jobbnorge-ID: 118262

Fredrik Jutfelt <fredrik.jutfelt@ntnu.no>

OkStateUniv FunctionalMorphology Macroevolution

I'm recruiting a Ph.D. (and possibly a Master's student) to join my lab in the fall of 2016 at Oklahoma State University. I am looking for an independent, motivated student to study the evolution of phenotypic diversity in anurans (frogs and toads). There are several potential options for projects focused on the major research areas in my lab (see below). Other related projects are possible, including working with other types of amphibians and reptiles, as Oklahoma is a fantastic place to work with them. Please see my lab's website for more information: www.dsмоen.com Some potential research topics include: - The relationship between ecology, morphology, and functional performance - The role of evolutionary convergence in-situ versus biogeographic dispersal in explaining patterns of diversity across communities - The effects of modularity and integration on macroevolutionary patterns of diversity in clades - The importance of deep evolutionary history on directing phenotypic evolution

If interested, please send me an introductory email that

includes your research interests (including why you are specifically interested in working on the above topics), research experience, CV, GPA and GRE scores, long-term career plans, and complete contact information for 3 references. Completed applications need to be submitted to OSU by 1 February 2016 to receive full consideration, so please contact me far in advance of this deadline.

Dr. Daniel Moen

DANIEL S. MOEN Assistant Professor Dept. Integrative Biology, Oklahoma State University 517 Life Sciences West Stillwater, OK 74078, USA Tel: (+1) 405-744-6815 Email: daniel.moen@okstate.edu Website: www.dsмоen.com

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Oslo PopulationGenomicsGenetics

<http://uio.easycruit.com/vacancy/1523323/96871?iso=no> Description follows below

CEES, Department of Biosciences PhD Research Fellowship in Population Genomics/genetics A PhD Research Fellowship in Population Genomics/genetics is available at the Centre for Ecological and Evolutionary Synthesis (CEES), Department of Biosciences,

The fellowship will be for a period of 3 years, with no compulsory work. Starting date from 01.01.2016 and no later than 01.03.2016.

No one can be appointed for more than one fixed-term period at the same institution.

Job description:

The successful candidate will work within the project "MARine Management and Ecosystem Dynamics under climate change (MARmaED)" (www.marmaed.eu) an Innovative Training Network funded by the Marie Skłodowska-Curie Action (The European Union's Horizon 2020) under grant agreement No 675997 for the period 2015-2019. MARmaED is an international and interdisciplinary network that unifies specific and complementary competences in marine sciences from Norway, Finland, Denmark, the Netherlands, Germany and France to investigate how the cumulative stress from biodiversity loss, climate change and harvesting will affect Europe's complex marine systems and the consequences for optimal resource management. The project's main aim is to investigate how combined an-

thropogenic and climatic changes affect different harvested ecosystems (terrestrial, freshwater, and marine - particularly, but not only, in Arctic regions) and how management strategies can be improved to ensure sustainable exploitation and resilience. MARmaED will provide salary for 15 PhD projects.

Genetic structure of the Northeast arctic cod: impact of climate change? Within this sub-project the PhD-candidate will work interdisciplinary - with the overarching goal to implement and use genomic data into population dynamic models - and study how adaptation to the environment shapes the spatiotemporal dispersal and genetic connectivity of the Atlantic cod. To reach this goal the candidate will use ancient DNA (aDNA) methodology to create whole genome data from historical samples using high-throughput sequencing. The long-term genomic perspective generated by these data will be used as a basis for advanced statistical modelling aimed to infer detailed knowledge on the spatiotemporal connectivity of Atlantic cod populations. This PhD-project will be tightly linked to an already ongoing project - the Aqua Genome project (<http://www.aquagenome.uio.no>) - where one of the major undertakings is to sequence 1000 Atlantic cod genomes from a variety of locations and populations. The study will derive fundamental biological knowledge with broad management implications, for instance aiding the development of optimal management strategies and sustainable fisheries.

Requirements:

The Faculty of Mathematics and Natural Sciences has a strategic ambition of being a leading research faculty. Candidates for these fellowships will be selected in accordance with this, and expected to be in the upper segment of their class with respect to academic credentials.

Applicants must hold a master-degree or equivalent, or must have submitted his/her master's thesis for assessment prior to the application deadline within population genomics/genetics and or ecology. It is a condition of employment that the master's degree has been awarded. Documented expertise within either population genomics/genetics is required. Further, experience with the generation and bioinformatic analyses of genomic datasets will be an asset. An additional background and/or strong interest in statistical modelling, demographic and spatial modelling and/or quantitative population modelling will be a distinct advantage.

The candidate must fulfil the requirement of eligibility dictate by EU; being resident in the host country not more than 12 months all in all during the last 36 months from the start of the PhD project. In addition, the candidate cannot have a longer than 4 years research experience.

We seek a highly motivated, enthusiastic person with the ambition to gain insight and publish papers in leading, international journals, and in possession of strong interpersonal skills and willingness to work in close collaboration with others.

The purpose of the fellowship is research training leading to the successful completion of a PhD degree.

The fellowship requires admission to the PhD programme at the Faculty of Mathematics and Natural Sciences. The application to the PhD programme must be submitted to the department no later than two months after taking up the position. For more information see:

<http://www.uio.no/english/research/doctoral-degree-and-career/phd/application/>

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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>

Paris Experimental Evolution

An assistant research position is open in the experimental evolutionary genetics lab at the Institut de Biologie de l'École Normale Supérieure (IBENS), in Paris, France (<http://www.ibens.ens.fr/spip.php?article351>).

Our research is focused on *C. elegans* experimental evolution to temporally variable environments. We are studying the role of natural selection in the evolution of distributions in life-history, behavior, metabolism and gene expression traits. We also study the population genomics of adaptation to novel environments.

The candidate will have a bachelor and/or masters in biology or related areas. Knowledge of the fundamentals of genetics is essential. The candidate will have some previous experience in the culturing of model microbial organisms (e.g., bacteria, yeast, nematodes) and in chemical and molecular biology techniques (e.g., preparation of solutions, nucleic acid extraction, electrophoresis, primer design, PCR). Candidates with bioinformatics skills will be given preference (e.g., genome sequence analysis, image analysis, R statistical analysis). The candidate will be able to work irregular but intense schedules, to maintain updated records and to properly archive data, participate in experimental design and provide weekly progress reports. The candidate will be

fluent in English. French fluency is not required but desirable.

The candidates will give support to on-going projects in the lab and will work closely and under the direct supervision of senior researchers. Specific tasks will include culturing of bacteria and nematodes, morphological identification of nematode individuals, archiving of biological stocks, media and solution preparation, collection of life-history data, genomic DNA preparation and PCR, bacterial and nematode genetic transformation, video recording and image analysis. The candidate will also perform lab managerial tasks, such as ordering of materials, maintaining service contracts and equipment, and interacting with the administrative and technical personnel at IBENS.

The position is funded by the French "Agence Nationale de la Recherche" for a monthly net salary between 1600-2100, contingent on education, previous experience and track record. The successful applicant can start as soon as January 2015. After an initial one-month trial period, the position will be renewed on a yearly basis and upon a positive evaluation of performance until January 2019.

A CV, letter of motivation and the contact information of two referees should be sent by email to Henrique Teotonio at teotonio@biologie.ens.fr as a single PDF file. Please indicate in the subject heading: application.tech.ANR. Applications will be reviewed until the position is filled.

teotonio <teotonio@biologie.ens.fr>

PotsdamU EvolutionaryGenomics

PhD position in Evolutionary Genomics of Marine Mammals at Potsdam University

A 3-year PhD position (TVEL 13/2) is available at the Unit of Evolutionary Biology/Systematic Zoology at the University of Potsdam, starting February 1st 2016.

The Unit of Evolutionary Biology/Systematic Biology has a strong focus on population genetic and speciation research, involving various taxonomic groups and a suite of molecular, morphological, and behavioural approaches (see <http://www.uni-potsdam.de/ibb/arbeitsgruppen/ordentliche-professuren/evolutionsbiologie-spez-zoologie.html> for recent work).

The successful applicant will work on the genomic basis

of adaptation in marine mammals. The project will have a strong bioinformatics component and may involve field work.

The position includes a teaching duty of 2 hours/week in zoology/evolutionary biology for undergraduates.

Applicants must hold a university degree (Diplom oder Master of Science in biology, bioinformatics, or a related discipline). Familiarity with modern genetic and genomics techniques, genomic data analysis, and/or multivariate statistics is essential.

The University of Potsdam is an equal opportunity employer. If equally qualified, disabled applicants will be preferably considered. The University of Potsdam aims at increasing the number of female researchers and encourages qualified females to apply.

Potsdam is a beautiful city in close vicinity to the German capital of Berlin. Potsdam University takes an effort to assist its members in family-related issues and has repeatedly been awarded the total e-quality award.

Please send your application by email (preferably in a single pdf) before 25th of November 2015 to: Prof. Dr. Ralph Tiedemann, University of Potsdam, Institute of Biochemistry and Biology, Evolutionary Biology/Systematic Zoology, Karl-Liebknecht-Str. 24-25, Haus 26, D-14476 Potsdam, Germany, Email: tiedeman@uni-potsdam.de

Prof. Dr. Ralph Tiedemann Unit of Evolutionary Biology/Systematic Zoology Institute of Biochemistry and Biology University of Potsdam Karl-Liebknecht-Str. 24-25, Haus 26 D-14476 Potsdam Germany

Tel: +49-331-977-5249, -5253 (secretary) Fax: +49-331-977-5070 Email tiedeman@uni-potsdam.de www.uni-potsdam.de/ibb/evolution Ralph Tiedemann <tiedeman@uni-potsdam.de>

QueensU Canada FisheriesGenomics

PhD positions in fisheries genomics & conservation.

We seek three motivated individuals to undertake large-scale fisheries genomics PhD projects on each of three focal arctic marine species V Arctic char, Arctic cod, and Northern shrimp. Each student will help to assemble and analyze large panels of SNPs from wild caught individuals from the Lower Northwest Passage in the Canadian Arctic and deploy a range of statistical and spatial approaches to help define demographically-

independent stocks and understand the potential consequences of a dramatically changing Canadian Arctic on marine biodiversity. Candidates will be part of a team of researchers seeking to contribute to a community- and science-based Nunavut sustainable fisheries. Biology, Queens University is dynamic and collaborative department with 36 tenured or tenure-track faculty, well-equipped molecular and microscopy facilities, multiple well-attended seminar series, and one of the best field stations in Canada (<http://biology.queensu.ca/>). Queens University is located in the centre of the small, historic city of Kingston, Ontario, on the northern shores of Lake Ontario.

Education requirements: - M.Sc. in biology or related discipline with knowledge of genetics, genomics, and/or bioinformatics OR B.Sc. with first class standing with similar background will also be considered.

Required background/experience: - familiarity with theory and applications in evolutionary and population genetics/genomics - background in statistics and data analysis - strong interpersonal and communication skills - excellent oral and written English communication skills - outstanding academic track record

Additional desirable experience: - experience with ddRAD-Seq or Genotyping-by-Sequencing methods - familiarity with GIS analytical tools - experience with some Next Gen Sequencing data analysis and tools (e.g. common NGS manipulation tools and standardized NGS data formats - e.g. SAM/BAM, VCF, genome assembly - e.g. ALLPATHS, SOAPdenovo) beneficial - programming experience with Unix/Linux, Perl or Python, and R or Matlab an asset Note that we provide training opportunities for these should that be necessary.

Duration: Stipend support for 4 years

Location: Department of Biology Biosciences Complex Queens University Kingston, Ontario, Canada

Application: Interested applicants should contact Stephen Loughheed (steve.loughheed@queensu.ca) directly. Please include 1) your CV that highlights the relevant skills, 2) a one-paragraph summary of your career goals and why you would like to undertake a PhD at Queens, 3) names of three references and their contact information. Start dates: January through September 2016.

Contact: Dr. Stephen C. Loughheed Baillie Family Chair in Conservation Biology Director, Queen's University Biological Station Professor, Biology & Environmental Studies Queen's University, Kingston ON Canada K7L 3N6 URL: <http://scloughheed.ca> email: steve.loughheed@queensu.ca

lough@queensu.ca

QueensU PlantMicrobeCoevolution

Graduate Studentship (MSc and PhD) Eco-evolutionary genetics of plant-microbe interactions

Antunes Lab (Algoma University) - <http://people.auc.ca/antunes/> Colautti Lab (Queen's University) - <http://bit.ly/colautti> Where: Kingston or Sault Ste. Marie, ON (Canada) When: January or September 2016

We are looking for a motivated PhD or MSc student to work on a project that combines next-generation sequencing with field and laboratory experiments to examine eco-evolutionary dynamics involving soil microbial communities and exotic plant populations.

The ideal candidate would have:

- an educational background in Microbiology, Microbial Ecology, Genomics, Computational Biology, or Theoretical Ecology/Evolution - an interest in soil ecology, plant invasions, or eco-evolutionary dynamics - excellent knowledge of experimental design and statistics - some experience with molecular lab techniques - some experience setting up greenhouse and/or field experiments - knowledge of soil science and plant invasions - excellent oral communication skills and a proven publication record - ability to work both independently and as part of a team.

The candidate would most likely be based in the Colautti lab.

The Antunes lab (<http://people.auc.ca/antunes/>) is located in Sault Ste. Marie, Ontario. The lab is newly equipped for research in microbiology, including PCR-based techniques. Exceptional plant growth chambers, greenhouse facilities and a long-term field research site are available through the Ontario Forestry Research Institute located within walking distance of the main campus.

The Colautti lab (<http://bit.ly/colautti>) in the Biology Department at Queen's University (<http://biology.queensu.ca/>) is newly equipped for research in ecological genomics in natural environments. This includes infrastructure for high-throughput DNA/RNA extraction, next-generation sequencing, high-performance computing, and field research at Queen's University Biological Station (QUBS) - a 3,200 hectare (~8,000 acre) research station with comfortable accommoda-

tion, catered meals, and a highly interactive research community (<http://www.queensu.ca/qubs>).

Conditions

Specific information about the application process, admission requirements and necessary forms can be found here: (<http://biology.queensu.ca/academics/graduate/applying/>). You will have opportunities to obtain competitive bursaries and Teaching Assistantships. <http://biology.queensu.ca/academics/graduate/scholarships/> <http://www.queensu.ca/sgs/awards-scholarships> Please contact Dr. Robert Colautti (robert.colautti<-a-t->queensu<dot>ca) or Dr. Pedro Antunes (antunes<-a-t->algonau<dot>ca) for additional information about the position or to send us your C.V., a cover letter with a statement of research interests and the names of three individuals able to provide a recommendation letter.

robert.colautti@queensu.ca

encouraged, particularly for those wishing to be considered for Campus Wide Graduate Council Fellowships and W. Burghardt Turner Fellowships.

Prospective students are encouraged to address specific questions to the Ecology and Evolution Graduate Program Coordinator (melissa.j.cohen@stonybrook.edu) or to Krishna Veeramah (krishna.veeramah@stonybrook.edu).

Krishna R Veeramah, Ph.D. Assistant Professor Dept of Ecology and Evolution Stony Brook University Rm 616, 650 Life Sciences Building Stony Brook NY 11794-5245 Office: 631-632-1101 Cell: 510-207-1424 E-mail: krishna.veeramah@stonybrook.edu <http://life.bio.sunysb.edu/ee/veeramahlab>

“krishna.veeramah@stonybrook.edu”
<krishna.veeramah@stonybrook.edu>

TexasTechU PlantGenetics

StonyBrookU NY EvolutionaryGenomics

The Veeramah Lab in the Department of Ecology and Evolution at Stony Brook (<http://life.bio.sunysb.edu/ee/veeramahlab/index.html>) is looking to recruit two PhD Students to begin in Fall 2016. The primary focus of the lab is examining genetic diversity in human and non-human primates. The lab currently has ongoing projects examining primate evolution through genomic scale data, as well as a variety of paleogenomic projects involving European human and non-human populations. The exact research project topics for potential students are flexible, but those individuals looking to perform research within the general research themes of the lab will be preferred. Applicants must hold a university degree.

Please note that while interested applicants are encouraged to contact Krishna Veeramah before applying, students wishing to join the lab must ultimately apply to the Stony Brook Ecology and Evolution Graduate Program. All relevant information for this program can be found at the website (<http://life.bio.sunysb.edu/ee/programs.html>) and a link to the application can be found at https://www.grad.stonybrook.edu/ProspectiveStudents/app_info.shtml. Please note that the deadline for receipt of all Ph.D. application materials is December 1st, 2015. Earlier submissions are

PhD Graduate Student Positions in Plant Ecological Genetics

Olson Lab, Texas Tech University

The Olson lab at Texas Tech University is recruiting PhD Graduate students interested in the field of plant ecological genetics to start in the fall of 2016. Our lab studies a variety of questions including the evolution of breeding systems, sex chromosome evolution, the evolution of gender dimorphism in plants, and local adaptation to latitude in relation to climate change. We use a variety of experimental techniques including common garden studies, field ecology, transmission genetics, genomics and bioinformatics. For the past decade we have studied these processes in forest trees and expect that this will continue to be the main taxonomic focus of our research.

Funds are available for a Graduate Research Associate on an NSF-funded grant to study the ecological and genetic factors influencing the dynamic movement of sex determination regions and sex chromosome evolution within the Salicaceae (poplars and willows). The overall project focuses on mapping sex determination regions from representatives throughout the family, understanding the genetic basis of gender dimorphism in defense and pollinator attraction chemistry, and the assessment of population genetic patterns across the sex determination and pseudo-autosomal regions of the sex chromosomes. Graduate students working on this project will

have the opportunity to choose from a variety of projects including, but not limited to, mapping the locations of previously unknown sex determination regions, development of phylogenies for important plant groups, and studying the evolution of sexual dimorphism in plant defensive and pollinator attraction compounds. Moreover, the grant provides for a unique multi-institutional and international training environment, with potential funding to visit labs at the University of West Virginia, the University of Wisconsin, Cornell University, and Sichuan University and Nanjing Forestry University in China for cross-disciplinary training.

The Olson lab is part of a dynamic Ecology and Evolutionary Biology group at Texas Tech. Courses and focused training in ecology, bioinformatics, and genomics are available from a highly interactive faculty. Texas Tech boasts excellent laboratory and research resources as well as easy access to some of the most beautiful and remote regions of the lower 48 United States.

Please contact Matt Olson directly at matt.olson@ttu.edu for more information regarding opportunities and application information. Additional information about the Olson lab can be found at www.faculty.biol.ttu.edu/olson/Research.html and general information concerning the Department of Biological Sciences can be found at www.depts.ttu.edu/biology/. "Olson, Matt" <matt.olson@ttu.edu>

TGAC Norwich WheatComparativeGenomics

Dear Evoldir'ers

Last chance to apply for this comparative genomics PhD focussing on alternative splicing in hexaploid wheat.

<http://www.tgac.ac.uk/studentships/dtp-studentships/-revealing-the-alternative-splicing-landscape-of-wheat-through-comparative-transcriptomics/> Alternative splicing (AS) is a mechanism that enables multiple distinct mRNAs to be formed from a single gene. Recent studies suggest that over 60 per cent of intron-containing genes in plants undergo AS, generating a vast repertoire of transcript isoforms.

While the importance of AS in contributing to protein diversity in plant and animal genomes is now well established few studies have examined AS in polyploid species. Polyploidy is the possession of more than two complete sets of chromosomes and is especially com-

mon in plants. Bread wheat (*Triticum aestivum*) is an allohexaploid (AABBDD) with the three subgenomes A, B and D derived from three diploid species within tribe Triticeae. Differential regulation of AS between the subgenomes may allow more regulatory flexibility in duplicated genes, AS has therefore potentially played an important role in the evolution and adaptation of cultivated crops to different environmental conditions and niches. This proposal aims to investigate the immediate and long-term effects of polyploidy on AS, examine the importance of AS in the evolution of duplicated genes and its potential role in domestication.

The successful student will apply the latest computational approaches and sequencing technologies to identify how much variation in AS exists in synthetic wheat hybrid lines and between wheat and its progenitor species. This will provide for the first time a detailed view of the role AS has played in the evolution and adaptation of wheat and its relationship to hybridisation and polyploidy. The student will have access to a high-performance computing environment and the opportunity to learn about gene regulation, transcriptomics, genome analysis, transcript assembly, bioinformatics and software development.

Best, Mark

Dr Mark McMullan Postdoctoral Research Associate
The Genome Analysis Centre Norwich Research Park
twitter: [mcmullan0](#) Skype: [mark.mcmullan](#)

"Mark.McMullan@tgac.ac.uk"
<Mark.McMullan@tgac.ac.uk>

TowsonU AntSystematics

Towson University - Ant Agriculture and Paleomyrmecology

Seeking master's-level graduate students to participate in on-going studies of ant systematics, evolution, and biodiversity. The LaPolla Lab at Towson University is recruiting graduates students to conduct independent thesis projects on one of the two topics the lab is currently focused on: studies on *Acropyga* ants & their mealybug symbionts and paleomyrmecology. Students would be expected to conduct both lab and field work in a variety of settings. Interested students should contact Dr. John LaPolla at jlapolla@towson.edu well before the deadline for a possible on-campus interview. Deadline for submission of application materials (Fall 2016

admission) is March 15, 2016.

For further information about the Towson University Biology Graduate Program see: http://wwwnew.towson.edu/biologicalsciences/-graduate_program.html John S. LaPolla, Ph.D. §Associate Professor Biological Sciences §Fisher College of Science & Mathematics Towson University §8000 York Road §Towson, Maryland, 21252 t. 410-704-3121 §f. 410-704-2405

“Lapolla, John S.” <JLapolla@towson.edu>

UAlberta EvolutionHostParasite

Graduate student position - Ecology and Evolution of Host-parasite Interactions

A graduate research position (MSc or PhD) is available in Dr. Lien Luong’s research group (http://www.biology.ualberta.ca/faculty/lien_luong/) at the University of Alberta. Students interested in the ecology and evolution of infectious diseases and/or parasite-host interactions are encouraged to apply.

Pathogenic organisms that are harmless under certain conditions can suddenly become extremely harmful under different circumstances. Indeed levels of parasitism vary continuously in nature, with some species shifting along a continuum from benign to pathogenic over ecological and evolutionary time. But even more fundamental to this issue is the process by which parasitism per se evolved. One of our goals is to investigate the life-history evolution of parasites that express variation in host exploitation strategies, and identify the selection pressures that lead to the transition to a parasitic lifestyle. Facultative parasites present a unique and interesting opportunity for addressing these questions because they regularly shift from free-living to parasitic lifestyles. The facultative ectoparasitic mite, *Macrocheles subdubius* feeds and reproduces on highly ephemeral habitats. Mites become parasitic under certain circumstances by attaching to and feeding on *Drosophila* fruit fly hosts.

The Department of Biological Sciences at U of A is one of the largest and most scientifically diverse departments of its kind in Canada. We offer research-orientated, thesis-based graduate programs at both the MSc and PhD levels. Study programs are tailored individually to graduate student needs and emphasize interdisciplinary thinking. All students accepted into our MSc program have guaranteed funding for at least 2.3 years and 5 yrs

for the PhD program. Teaching training is provided and is mandatory for all students on graduate teaching assistantships. With ~270 graduate students, >70 full-time faculty, excellent support facilities and ample research funding, a vibrant and exciting learning environment is provided. For more information about applying to the graduate program: <https://uofa.ualberta.ca/-biological-sciences/graduate-studies> Highly motivated and independent students interested in developing their own research ideas are also encouraged to apply. If you know of an exceptional student who might be interested, please forward this information onto him/her. To apply, please send a brief (½ - 1 page) explanation of your research experience and interests and a copy of your curriculum vitae or transcript. Email the above as a single .pdf file to lluong@ualberta.ca. For more information, please contact Dr. Lien Luong (lluong@ualberta.ca).

Lien T. Luong, PhD Assistant Professor Department of Biological Sciences CW 405, Biological Sciences Bldg. University of Alberta Edmonton, AB T6G 2E9 Canada Office: (780) 492-1818 <https://hocking.biology.ualberta.ca/labs/luong/> Lien Luong <lluong@ualberta.ca>

UCanterbury NewZealand PathogenGenomics

There is an open PhD position to study bioinformatic approaches to analysing large and diverse pathogen genomic datasets at the University of Canterbury in New Zealand.

The successful candidate will be involved in analysing a wealth of data generated by new sequencing technologies. The research group has a broad range of interests including but not exclusive to the bioinformatic characterisation of comparative genomics, RNA-seq, proteomics, sequence and structural motif analysis and the analysis of transposon mutagenesis libraries.

The bioinformatics team at the School of Biological Sciences is a dynamic group interested in the free and rapid dissemination of research discoveries. They collaborate widely, including with groups in the UK, Denmark, US, Sweden, Germany and Australia. For further enquiries please contact: Paul Gardner (paul.gardner@canterbury.ac.nz)

Required background: An honours or masters degree in a biological or mathematical discipline such as bio-

chemistry, genetics, molecular biology, maths, statistics, physics, computer science or equivalent and a demonstrated interest in developing bioinformatic skills.

Closing date 15 January, 2016.

A PhD stipend of up to \$28,000 NZD including fees will be provided by the Bio-Protection Research Centre. Regulations regarding the PhD program at the University of Canterbury can be found here: http://www.canterbury.ac.nz/courses/-grad_postgrad/phd.shtml Application: Please email a cover letter, CV, academic transcript and the names of at least two referees to: paul.gardner@canterbury.ac.nz

Paul P. Gardner Rutherford Discovery Fellow Senior Lecturer in Bioinformatics University of Canterbury NEW ZEALAND

Ph. +64 (0)3 364 2987 ext. 6742

<http://rfam.sanger.ac.uk> <http://tinyurl.com/rnafamily>
“Paul P. Gardner” <ppgardner@bi.ku.dk>

UCBerkeley SanDiegoStateU EvolChemicalDefense

Two Ph.D. student positions available. Students will be team members in an NSF funded Collaborative Research project: The Genetic Basis, Biosynthetic Pathways and Evolution of Geodephagan Chemical Defense that includes participants from UC, Berkeley; San Diego State University; University of Arizona; and Steven’s Institute of Technology.

The Will Lab, ESPM Department and Essig Museum of Entomology, University of California, Berkeley, is seeking a graduate student interested in working on understanding the function and evolution of defensive chemistry in Adephegagan beetles with a preference for students with a master’s degree and a background or strong interest in insect chemical ecology, molecular biology and phylogenetics. This student could start as soon as fall 2016 if he/she makes the 1 Dec 2015 application deadline (<http://ouenvironment.berkeley.edu/graduate-programs/admissions/>), but if not filled in 2016, this and additional positions may be open in 2017.

The Renner Lab, Evolutionary Biology, San Diego State University, is searching for a graduate student with a background or strong interest in molecular evolution, phylogenetics, and bioinformatics. This student could start as early as fall 2016 if he/she makes the Decem-

ber 14th priority deadline (<http://www.bio.sdsu.edu/-eb/jdapplications.html>), but if not filled in 2016, this position may be open in 2017.

Potential candidates should please contact Kipling Will (kipwill@berkeley.edu) or Tanya Renner (trenner@mail.sdsu.edu) for more information. Please include a brief statement of research interests and a CV with your email.

“trenner@mail.sdsu.edu” <trenner@mail.sdsu.edu>

UColorado Boulder PetuniaEvGen

The Smith lab in the Department of Ecology and Evolutionary Biology (EBIO) at the University of Colorado Boulder is recruiting a Ph.D. student to work on an NSF-funded project on flower color evolution in the Petunieae, a clade of 140 species, including the ornamental petunias. This project incorporates phylogenetics, transcriptomics, and pigment biochemistry in order to test the role of regulatory evolution in color diversity at a phylogenetic scale. A more detailed description of this project is available on our website: <https://www.colorado.edu/smithlab/research/-predictability-flower-color-evolution-petunieae> Interested students should contact Dr. Smith by email (Stacey.D.Smith@colorado.edu) with a description of their research interests and a CV including relevant experience, GPA, GRE scores, and the names of three references.

More information about the graduate program in the EBIO department is available at: <http://www.colorado.edu/ebio/graduate/admissions>
dewitt832@gmail.com

UCopenhagen PopulationGenetics

A 3-year PhD scholarship in population genetics/statistical genetics is available in the research group of Assistant Professor Ida Moltke at the Section for Computational and RNA Biology, Department of Biology, University of Copenhagen. The successful candidate is expected to work on really interesting projects related to human population isolates, like the Greenlandic pop-

ulation, and is expected to start February 1, 2016 or shortly thereafter.

For details see: <http://employment.ku.dk/phd/?show=779989> If you have any questions feel free to e-mail: ida@binf.ku.dk

ida@binf.ku.dk

UEastAnglia ULeeds DrosophilaSexCommunication

Announcement for email and twitter: PhD position starting Oct 2016 Love thy neighbour? Social and sexual accommodation in fruitflies

Supervisors: Tracey Chapman and Irina Mohorianu (Biological Sciences, UEA, UK); Amanda Bretman (School of Biology, Leeds, UK).

This PhD project offers an exciting and unique training opportunity to test the effect of manipulating sensory communication on the ability of male fruitflies to sense their social and sexual environment. The student will gain research skills in cutting-edge genetic, genomic manipulations and novel bioinformatics. They will receive excellent training from the thriving Norwich Biosciences Doctoral Training Partnership:

<http://www.biodtp.norwichresearchpark.ac.uk/> Individuals of many species adjust to their environment to increase their potential competitiveness. A familiar example is 'speech accommodation', where individuals, often unintentionally, adopt the accent or speech patterns of those around them. In fruitflies, males show precise responses to their social and sexual environment. Following detection of conspecific rivals, males transfer more ejaculate proteins to females and sire more offspring. Males detect rivals using multiple, redundant sensory inputs. The first aim is to test the idea that this system is robust, immune to mis-firing and confers significant benefits.

Our recent analysis of gene expression in males exposed to rivals reveals a signature of redundancy, with similar sensory inputs following different pathways to result in the same output. The second aim is to test directly for such genomic redundancy, by analyzing the gene expression patterns of responding males that lack sensory inputs.

The final aim is to test whether the same rules apply to detection in interactions involving males of closely re-

lated species. 'Mistakes' in identification are apparently not related to relatedness or the potential to hybridise.

The proposed project is at the forefront of identifying recognition mechanisms and is relevant to insect control, by using our knowledge to manipulate reproductive biology via gene silencing.

Full funding for this project is available to UK and EU nationals. Please see:

<http://www.biodtp.norwichresearchpark.ac.uk/projects/project-detail/project/164>

for more details and for how to apply!

“Tracey Chapman (BIO)”
<Tracey.Chapman@uea.ac.uk>

UEdinburgh 2 PlantEvolution

Project 1: Ecological consequences of plant parasitism in Euphrasia

Parasitism is a ubiquitous phenomenon in the natural world, with dramatic evolutionary and ecological consequences for both the host and the parasite. There are over 3000 described parasitic plant species, including *Rhinanthus*, which maintains grassland ecosystems by stunting the growth of other herbaceous plants, and *Striga*, which decimates 12 billion dollars' worth of rice crops each year. While plant parasitism has a major effect on natural ecosystems, our understanding of the ecology of plant parasitism is surprisingly poor. In order to understand the origin and maintenance of plant parasitism, it is necessary to study the fitness benefit plant parasites receive from host attachment, and the genes associated with the parasitic plant syndrome.

This project investigates the ecological consequences of parasitism in *Euphrasia*, a group of generalist plant parasites which can grow independently, but grow more vigorously when attached to a suitable host plant. The genus includes c. 20 species in the UK, with each species showing notable habitat preferences (e.g. coastal, montane, meadow), and thus potentially different local host preferences, too. We have recently made seed collections from populations across the UK, as well as developed new genomic resources (whole draft-genome sequences), enabling us to investigate the ecological significance and genomic basis of parasitism and host preferences.

This project incorporates large-scale plant growth trials and cutting-edge gene expression data to address the

following research questions:

1. Do *Euphrasia* species adapted to different habitats (montane vs coastal) have preferences for different host species? 2. What are the phenotypic and ecophysiological changes with alternative host attachment? 3. Are there major gene expression changes associated with attaching to different host plants?

In addition to answering these research questions, this project will also involve an industrial placement with CASE partner Scotia Seeds, the leading producer of wildflower seeds in Scotland. During a series of short placements throughout the PhD, the student will test germination protocols and procedures for growing *Euphrasia* as a commercial crop for wildflower seed mixes.

Overall, this project represents an exciting example of where the combination of growth trials and genomic tools may give insight into classic, yet unanswered, questions in evolutionary biology.

To read more, please see: <http://www.eastscotbioldtp.ac.uk/ecological-consequences-plant-parasitism-euphrasia> Project 2: The importance of genome duplication in the origin of novel plant diversity

Related species often show differences in genome structure, with whole genome duplication (polyploidy) representing one of the most dramatic forms of genomic variation. Whole genome duplication has long interested evolutionary biologists, as it may prevent cross-mating between diverging taxa, and thus promote speciation. However, recent genomic analyses have cast doubt on this assumption, as ongoing gene flow has been detected between polyploids and their diploid relatives. Additional genomic studies are required to test whether polyploidy can cause instantaneous and complete reproductive isolation, and thus be a mechanism underlying sympatric speciation.

This project will investigate the importance of polyploidy in the evolution of the plant genus *Euphrasia* (eyebrights). This genus includes c. 20 species in the UK, with diploids and tetraploids that commonly co-occur and are thought to occasionally hybridize. We have recently sequenced the complete genome of the diploid, and shown that diploids and tetraploids are highly genetically divergent. We have also located a site in South Wales where diploids and tetraploids co-occur. These resources and observations provide the background for further studies investigating polyploidy and hybridization in this group. This project will use draft genome sequences, and generate new population genomic data and field observations, in order to:

1. Understand genomic differences between diploids and

tetraploids. 2. Observe the extent of localised gene flow in a diploid-tetraploid hybrid zone. 3. Look for evidence of historical gene flow between diploids and tetraploids across the UK.

This project will use cutting-edge genomic tools and classic field observations to shed light on an important yet poorly understood evolutionary processes. This project will offer training in genomic analysis, and include fieldwork in South Wales and other areas of the United Kingdom.

To read more, please see:

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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>

UEdinburgh Adaptation

A PhD is available at the University of Edinburgh, UK, as part of the NERC Edinburgh Earth and Environment Doctoral Training Program.

on: Understanding the impacts of environmental change on tree-herbivore-enemy associations

Supervisors: Prof Graham Stone (University of Edinburgh), Dr Karsten Schonrogge (Centre for Ecology and Hydrology, Wallingford) and Dr. Melanie Gibbs (Centre for Ecology and Hydrology, Wallingford).

Primary supervisor contact email: graham.stone@ed.ac.uk

To apply online. Visit <http://e3dtp.geos.ed.ac.uk/projects.html> Select Biosphere and Ecology Search for Stone, select this project and follow the Apply link

Project Description Project background “ the two most diverse animal groups on earth are insect herbivores and their parasitoid natural enemies, which provide the key ecosystem service of biological control. Herbivore-enemy interactions are embedded in wider communities, which face perturbation from stressors including climate change and biological invasions. Theory predicts that impacts on herbivore food plants will cascade through trophic networks, particularly when the plants are keystone or foundation species. This project will use experimental oak plantations and recent biological invasions to explore responses of forest tree-insect

herbivore-parasitoid communities to two environmental change impacts:

1) Effects of assisted migration of forest trees as a mitigation strategy for climate change. Climate Matching is a forest management strategy that involves introduction of trees from source populations (provenances) that experience today the climate predicted in Britain in 50 " 80 years time. While adaptation to warmer climates should mitigate the impact of climate change, but at the potential cost of importing new, non locally adapted, tree genotypes. The strategy is currently being tested in experimental trials involving trees from a range of provenances. Previous work by the supervisors has shown how the phenotypic traits of introduced provenances influence insect herbivore communities (Sinclair et al 2015). This PhD will extend this work to explore impacts on the associated natural enemies. Theory predicts that parasitoid communities will also respond to the phenotypic variation of their preys host plant. We will test this prediction utilising parasitoids already collected from a large provenance trial in France, with opportunities to collect further samples from similar trials in the UK. This aspect of the project will require DNA barcoding, the analysis of trophic networks, and will develop skills in the rapidly expanding field of community genetics (Whitham et al 2006, Wimp et al 2007).

This project will provide training in experimental design, data management, statistical methods for handling, analysing and interpreting large datasets, taxonomy & systematics, and field work. The student will also receive training in lab and analytical skills associated with DNA barcode sequences, and population genetic data. We seek a candidate with strong quantitative and analytical skills, and interest in the use and analysis of DNA sequence data. Interest in insect biodiversity and ecosystem impacts of environmental change is an advantage.

2) Effects of species introduction via biological invasions: Biological invasions are an increasingly important aspect of environmental change, with potential major impacts on native communities. The second component of this project will study the development of parasitoid communities around an economically important invader " the chestnut gallwasp, *Dryocosmus kuriphilus*. Originating in China, it was first recorded in Europe from Italy in 2002. It has since spread across southern Europe and was first recorded in the UK in 2015. It has rapidly accumulated a suite of native European natural enemies, primarily from related oak gallwasps, which provide potential for biological control (Quacchia et al 2013). This project will test alternative hypotheses for the assembly of these new parasitoid communities, and explore potential impact on native herbivore communities by the

recent release of a biocontrol agent, the parasitoid wasp *Torymus sinensis* (Gibbs et al 2011).

Funding notes This project is offered as part of the Edinburgh Earth and Environment doctoral training program, which has available Studentships with a minimum of 3.5 years (6 years PT) funding available to UK citizens and to EU citizens who have worked or studied in the UK for the previous 3 years. Full eligibility details can be found at the RCUK website (<http://www.rcuk.ac.uk/RCUK-prod/assets/documents/documents/TermsConditionsTrainingGrants.pdf>).

Fully funded three-month professional internships are available in addition to the 3.5 years funding.

References

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UEdinburgh InsectPopulationGenetics

I would like to advertise a PhD project at the University of Edinburgh.

Selection in a guild of Hymenopteran parasitoids

Advisory team: Dr. Konrad Lohse (Edinburgh), Prof. Graham Stone (Edinburgh) and Prof. Mike Ritchie (St Andrews)

Genomic studies have been tremendously successful in detecting the footprints of past selection. However, studies of selection have mainly been restricted to individual species with little regard for the ecological interactions that underlie selection or the demographic setting in which it occurs. Decreasing costs of high throughput sequencing make it possible to address new questions through analysis of comparative datasets for multiple species. In particular, co-distributed species that share the same environment (e.g. parasitoid wasps exploiting a shared set of host species) should face highly correlated selective pressures, and this should be detectable by comparing signals of selection across their genomes. Replicating selection tests across species also greatly increases statistical power to detect selection at individual loci.

The aim of this project is to investigate selection in a natural guild of chalcid parasitoid wasps attacking oak galls in Europe. The Stone and Lohse labs have recently generated population genomic data for 12 chalcid species of parasitoids from six different families. Species are sampled in reciprocal pairs of in- and outgroups and each species includes multiple individual genomes from three different populations. The geographic distributions, population histories and host associations of these parasitoids are well studied, providing an excellent comparative framework for the study.

This dataset provides a unique opportunity to study selection in a comparative framework and at two time scales: Long-term selection will be quantified using classic population genetic tests based on divergence. More detailed analyses can be used to model recent selective sweeps. The latter will make use of the fact that the data are from haploid males, so include complete phase information. The project will use a combination of genome scans for outlier loci and comparison between candidate genes involved in host-parasitoid interactions (e.g. olfactory and gustatory receptor genes, and genes expressed in the venom gland) to address the following questions: i) To what extent does long-term selection correlate with recent selection? ii) how common are strong selective sweeps and does their frequency increase following range expansions? iii) Is selection increased at candidate genes that are involved in co-evolutionary interactions with higher and/or lower trophic levels? iv) Does the strength of selection correlate with key life-history traits, for example dispersal ability or the range of host species?

The project will be based mainly on existing genomic data and will also incorporate previously collected ecological data (e.g. host associations) and demographic models for these species. Additional genomic data for selected target species will be generated to increase statistical power in comparative analyses. The project is very flexible and - depending on the interest and experience of the applicant - could also involve investigating the evolution of sex specific genes, other comparative datasets or a strong theoretical component. The project will also involve some entomological field trips and a small amount of wetlab work.

References: Stone, G, Lohse, K. et al *Current Biology*, 22 (6), R182-183 (2012), Lohse K, Barton N., Melika, G, Stone G. *Mol. Ecol.* 21(18) 4605-4617 (2012).

For informal enquiries contact Konrad Lohse: konrad.lohse@ed.ac.uk Funding options are available for both UK and non-UK students but deadlines vary so please get in touch asap.

- The University of Edinburgh is a charitable body, reg-

istered in Scotland, with registration number SC005336.

Konrad Lohse <klohse@staffmail.ed.ac.uk>

UExeter EvolutionCognition

PhD opportunity to study the evolutionary genetics of cognition at the Centre for Ecology and Conservation, University of Exeter, UK under the supervision of Alastair Wilson and Alex Thornton.

Full details of eligibility and application procedures are available at <http://www.findaphd.com/search/-ProjectDetails.aspx?PJID=67161>. Deadline for applications is Dec 1 2015.

Cognitive processes are vital for carrying out the day-to-day behaviours needed for survival and reproduction. Comparative psychologists have made great progress in determining the cognitive mechanisms underpinning behaviour, showing that many species are capable of performing more sophisticated cognitive tasks than previously thought. However, it is also becoming clear that cognitive performance varies can vary a lot among individuals within populations of the same species. This variation is hugely significant as it is a prerequisite for both natural selection and genetic variation - the two ingredients for ongoing adaptive evolution. This project will take an experimental approach to determine the genetic causes and consequences of among-individual variation in cognition in guppies, *Poecilia reticulata*. It will do this by combining lab-based behavioural studies with quantitative genetic modelling to frame and test evolutionary hypotheses about the causes and consequences of (genetic) variation in cognition.

"A.Wilson@exeter.ac.uk" <A.Wilson@exeter.ac.uk>

UExeter MicrosporidiaParasitesEvolution

NERC (GW4+ DTP) PhD studentship on the evolution and diversity of microsporidia parasites, University of Exeter, UK, for September 2016

The Enterocytozoon Clade: Emergent Microsporidia in the Aquatic-Terrestrial Food Chain

Supervisors Bryony Williams (University of Exeter), Grant Stentiford (The Centre for Environment, Fisheries and Aquaculture Science (Cefas) and Tom Williams (University of Bristol)

Project enquiries - Email: b.a.p.williams@exeter.ac.uk
Contact number: +44 (0) 01392 263425

Project description:

The Enterocytozoonidae family of microsporidia is home to two economically important pathogens: Enterocytozoon bienersi, which is one of the most common causes of AIDS-associated diarrhoea; and Enterocytozoon hepatopenaei, a Tiger and Whiteleg shrimp pathogen initially found in Thailand but now reported to have spread to China, Indonesia, Malaysia, Vietnam and India. This pathogen has emerged very rapidly and is set to cause multimillion-dollar losses to shrimp production. Infections are now at a critical level with some farms finding *E. hepatopenaei* in 100% of shrimp ponds. Both humans and shrimps may be acquiring these infections from environmental reservoirs of, as yet, unidentified intermediate hosts, which means that transmission routes for these pathogens are poorly understood. This studentship aims to resolve two questions in Enterocytozoonidae transmission biology, which will inform strategies aimed at limiting spread of these pathogens.

What is the environmental diversity of the Enterocytozoonidae? We will take an environmental DNA approach to identify reservoirs or carriers for the Enterocytozoonidae and further species that may have the capacity to cause human or animal disease. Water samples and invertebrates will be collected from domestic sewage, riverine, estuarine and coastal habitats (representing transition environments between human and aquatic animal populations) and from shrimp ponds in Thailand. Samples will be processed for downstream DNA extraction and histology. We will generate a profile of Enterocytozoonidae diversity by extracting DNA, amplifying a variable stretch of the 18s rRNA gene using Enterocytozoonidae specific primers, and deep sequencing of amplicon libraries using in-house Illumina MiSeq. When DNA sequences with high similarity to *E. bienersi* or *E. hepatopenaei* are found, they will be used as labelled probes for in situ hybridisation to identify potential intermediate hosts. This research aim will equip us to identify and track natural reservoirs of emerging human and shrimp pathogens.

How is *E. hepatopenaei* spreading between shrimp farms? Transmission to new regions and hosts may be mediated by movement of infected shrimp, by unknown intermediate hosts and/or by contaminated feed. Here we propose to use population genomics to identify how transmission has occurred. Genomes of *E. hep-*

atopenaei from shrimp farms located in central, eastern and southern regions of Thailand, from China, and from both Whiteleg and Tiger shrimp hosts will be sequenced using in-house Illumina MiSeq. Relationships between the isolates will be determined from genome-wide patterns of variation and used to infer transmission routes and inform aquaculture policies to prevent future spread of the infection.

References:

Enterocytozoon hepatopenaei sp. nov. (Microsporida: Enterocytozoonidae), a parasite of the black tiger shrimp *Penaeus monodon* (Decapoda: Penaeidae): Fine structure and phylogenetic relationships. Tourtip S, Wongtripop S, Stentiford GD, Bateman KS, Sriurairatana S, Chavadej J, Sritunyalucksana K, Withyachumnarnkul B. *J Invertebr Pathol.* 2009 Sep;102(1):21-9.

Urgent appeal to control spread of the shrimp microsporidian parasite Enterocytozoon hepatopenaei (EHP). Sritunyalucksana, K., Sanguanrut, P., Salachan P. V., Thitamadee, S., Flegel, T.W., 2014. http://www.enaca.org/modules/news/article.php?article_id=2039 Please click here for more details <http://www.exeter.ac.uk/studying/funding/award/?id=1953>

Entry requirements:

Applicants should have obtained, or be about to obtain, a First or Upper Second Class UK Honours degree, or the equivalent qualifications gained outside the UK. Applicants with a Lower Second Class degree will be considered if they also have Masters degree. Applicants with a minimum Upper Second Class degree and significant relevant non-academic experience are encouraged to apply. All applicants would need to meet our English language requirements by the start of the project <http://www.exeter.ac.uk/postgraduate/apply-english/> The majority of the studentships are available for applicants who are ordinarily resident in the UK and are classed as UK/EU for tuition fee purposes, however up

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UExeter PollinatorPathogenEvolution

NERC (GW4+ DTP) PhD studentship on the evolution of pollinator pathogens at the Cornwall Campus of the University of Exeter, starting in September 2016.

Pollinator plagues: the evolutionary ecology of shared infectious diseases in pollinator communities

Honeybees and bumblebees are key pollinators of wild and agricultural flowering plants. Recently, it has become clear that these insects not only overlap in their ecology, but also share many infectious diseases (Manley et al. 2015, Fuerst et al. 2014). This makes pollinators an excellent ecological model system for emerging diseases, but also potentially impacts how pollinators have to be managed and conserved. In this project, you will be able to study the ecological and evolutionary risk factors driving disease emergence and spread, as well as their impacts on pollinator communities at an ecological and evolutionary level. You will be part of a large collaborative research project studying the impacts of agri-environment schemes, designed to improve agricultural landscapes for pollinators, on emerging diseases in pollinators.

In this PhD, you will be trained in experimental ecology in the field and the lab and gain skills in molecular ecology, population genetics and phylogenetics. With your PhD, you will be able to address both fundamental questions on the evolutionary ecology of multi-host pathogen interactions, as well on the applied impacts of these interactions and how they can be mitigated. You will primarily be based at the University of Exeter's Penryn campus, but also spend time at NERC's Centre for Ecology and Hydrology (CEH) in Oxfordshire. You will be supervised by a team of experts in emerging diseases and pollinator ecology at the University of Exeter (Dr. Lena Wilfert, Prof. Juliet Osborne), CEH (Dr. Claire Carvell) and Royal Holloway University (Prof. Mark Brown). For informal enquiries, please contact Dr. Lena Wilfert (lena.wilfert@ex.ac.uk).

Fürst MA, McMahon DP, Osborne JL et al. (2014) Disease associations between honeybees and bumblebees as a threat to wild pollinators. *Nature*, 506, 364-366.

Manley R, Boots M, Wilfert L (2015) Emerging viral disease risk to pollinating insects: ecological, evolutionary

and anthropogenic factors. *Journal of Applied Ecology*, 52, 331-340.

Please click here for more details or to apply for this competitive studentship:

<http://www.exeter.ac.uk/studying/funding/award/?id=1953> Entry requirements:

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Application deadline: 8th January 2016

Value: At least £14,057pa for 3.5 years and UK/EU tuition fees for eligible students

Contact: CLES PGR Support Team 01392 723706/01392 725150

exeter-nerc-gw4+@exeter.ac.uk

Dr. Lena Bayer-Wilfert Senior Lecturer in Molecular Evolution Centre for Ecology & Conservation Biosciences, College of Life & Environmental Sciences University of Exeter, Penryn Campus, Penryn, TR10 9FE UK

Phone: +44 (0) 1326370723 Email: lena.wilfert@ex.ac.uk

Website: http://biosciences.exeter.ac.uk/staff/index.php?web_id=Lena_Wilfert "Bayer-Wilfert, Lena" <L.Bayer-Wilfert@exeter.ac.uk>

UExeter PollinatorPathogenEvolution 2

NERC (GW4+ DTP) PhD studentship on the evolution of pollinator pathogens at the Cornwall Campus of the

University of Exeter, starting in September 2016.

Pollinator plagues: the evolutionary ecology of shared infectious diseases in pollinator communities

Honeybees and bumblebees are key pollinators of wild and agricultural flowering plants. Recently, it has become clear that these insects not only overlap in their ecology, but also share many infectious diseases (Manley et al. 2015, Fuerst et al. 2014). This makes pollinators an excellent ecological model system for emerging diseases, but also potentially impacts how pollinators have to be managed and conserved. In this project, you will be able to study the ecological and evolutionary risk factors driving disease emergence and spread, as well as their impacts on pollinator communities at an ecological and evolutionary level. You will be part of a large collaborative research project studying the impacts of agri-environment schemes, designed to improve agricultural landscapes for pollinators, on emerging diseases in pollinators.

In this PhD, you will be trained in experimental ecology in the field and the lab and gain skills in molecular ecology, population genetics and phylogenetics. With your PhD, you will be able to address both fundamental questions on the evolutionary ecology of multi-host pathogen interactions, as well on the applied impacts of these interactions and how they can be mitigated. You will primarily be based at the University of Exeter's Penryn campus, but also spend time at NERC's Centre for Ecology and Hydrology (CEH) in Oxfordshire. You will be supervised by a team of experts in emerging diseases and pollinator ecology at the University of Exeter (Dr. Lena Wilfert, Prof. Juliet Osborne), CEH (Dr. Claire Carvell) and Royal Holloway University (Prof. Mark Brown). For informal enquiries, please contact Dr. Lena Wilfert (lena.wilfert@ex.ac.uk).

Fürst MA, McMahon DP, Osborne JL et al. (2014) Disease associations between honeybees and bumblebees as a threat to wild pollinators. *Nature*, 506, 364-366.

Manley R, Boots M, Wilfert L (2015) Emerging viral disease risk to pollinating insects: ecological, evolutionary and anthropogenic factors. *Journal of Applied Ecology*, 52, 331-340.

Please click here for more details or to apply for this competitive studentship:

<http://www.exeter.ac.uk/studying/funding/award/?id=1951> Entry requirements:

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be considered if they also have Master's degree. Applicants with a minimum Upper Second Class degree and significant relevant non-academic experience are encouraged to apply. All applicants would need to meet our English language requirements by the start of the project <http://www.exeter.ac.uk/postgraduate/apply/english/> The majority of the studentships are available for applicants who are ordinarily resident in the UK and are classed as UK/EU for tuition fee purposes, however up to 9 fully funded studentships across the DTP are available for EU/EEA applicants not ordinarily resident in the UK. Applicants who are classed as International for tuition fee purposes are not eligible for funding.

Application deadline: 8th January 2016

Value: At least £14,057pa for 3.5 years and UK/EU tuition fees for eligible students

Contact: CLES PGR Support Team 01392 723706/01392 725150

exeter-nerc-gw4+@exeter.ac.uk

Dr. Lena Bayer-Wilfert Senior Lecturer in Molecular Evolution Centre for Ecology & Conservation Biosciences, College of Life & Environmental Sciences University of Exeter, Penryn Campus, Penryn, TR10 9FE UK Phone: +44 (0) 1326370723 Email: lena.wilfert@ex.ac.uk Website: http://biosciences.exeter.ac.uk/staff/index.php?web_id=Lena_Wilfert "Bayer-Wilfert, Lena" <L.Bayer-Wilfert@exeter.ac.uk>

UFlorida EvolutionAnts

Where: UFlorida.Gainesville What: AntEvolutionaryEcology

PhD in evolutionary ecology of ants at the University of Florida. The Lucky lab at UF is recruiting graduate students for Fall 2016. The general focus of the position will be on the impact of native and exotic ant biodiversity on ecosystems. Students interested in joining the lab will have the opportunity to develop their own research focus in this area. Relevant topics include systematics, population genetics, symbiosis and community phylogenetics. Experience with the following is an asset: insect classification, collections management, morphological or molecular systematics, bioinformatics, fieldwork. Applicants with academic interest in evolutionary processes in social insects or invasion ecology are especially encouraged to apply.

Qualifications: * Demonstrated ability to complete projects and publish results. * Master's degree in entomology, ecology and evolutionary biology or relevant biological science. * Competitive GRE scores required; Minimum GPA of 3.5. * Proficiency in English (written and oral) communication.

Interested candidates should send CV, statement of interest and names and contact information of three references to alucky@ufl.edu with the subject header PHD POSITION. Deadline is Nov 15, 2016. Start date in Fall 2016.

Dr. Andrea Lucky. University of Florida Entomology/Nematology. Gainesville, FL 32611-0620, USA. Email: alucky@ufl.edu. Website: www.andrealucky.com
alucky@ufl.edu. Website: www.andrealucky.com

UGeorgia EvolutionaryBiology

Graduate study at UGA in Evolutionary Biology

The University of Georgia is recruiting new graduate students in evolutionary biology.

UGA is home to over 50 evolutionary biologists who study diverse questions about the mechanisms and processes of evolution. Many students who are interested in evolutionary biology are admitted through the Integrated Life Sciences program. This is a portal through which students enter and can complete rotations in nearly any life science department before choosing a home laboratory and department. Please find more information about the ILS program at <http://ils.uga.edu/>. Applications to the ILS program for Fall 2016 admission are due December 1, 2015.

We encourage potential students to explore the interests of our faculty, and to be in touch with faculty whose research they are interested in. For a list of evolutionary biology faculty associated with the ILS program, please see <http://evolutionary.genetics.uga.edu/EvoEcol.html>. Athens is a fun and affordable place to live, and is consistently ranked among the nation's top college towns.

Please contact us or any of the faculty in the ILS program with questions.

Kelly Dyer Evolution and Ecology ILS group representative Associate Professor of Genetics kdyer@uga.edu

Walter Schmidt Graduate Coordinator of the ILS program Associate Professor of Biochemistry and Molecular

Biology wschmidt@uga.edu

"kdyer@uga.edu" <kdyer@uga.edu>

UGlasgow 2 EvolEcolTickVectorDisease

The James Hutton Institute/ University of Glasgow joint PhD studentship

Biodiversity impacts on Lyme disease risk and pathogen genetics

This is a joint PhD project between Drs Lucy Gilbert and Justine Irvine at the James Hutton Institute and Dr Roman Biek at the University of Glasgow.

Background: The largest policy-driven land-use change in the UK is currently woodland regeneration/ expansion. The benefits of this include climate change mitigation and enhancing water quality and biodiversity. However, some of this biodiversity plays a role in the transmission of the tick-borne Lyme disease: deer are the most important hosts for ticks, while rodents and birds each transmit their own genotypic strain of *Borrelia*, the bacteria that cause Lyme disease. Most Lyme disease infections in humans are picked up in woodlands, and *Borrelia* is more prevalent in high biodiversity semi-natural mixed woodland than coniferous plantations (James et al. 2013 Parasitology). We now need to identify the host-driven mechanisms for these patterns of Lyme disease risk. This will inform woodland design and access planning. Lyme disease is a potentially debilitating tick-borne disease with a high media profile and is of increasing concern to policy. However, the mechanisms driving the pathogen's abundance and diversity remain poorly understood due to the complex ecology of its multiple hosts and the tick vector. We predict that higher densities of the main tick host (deer) and transmission hosts (rodents) result in higher Lyme disease risk overall and a change in *Borrelia* genotype.

Aims: The overarching aim is to test the role of relative densities of mammalian hosts on *Borrelia* prevalence, density of infected ticks (an indication of Lyme disease risk), and *Borrelia* genotypes. Specifically, using both comparative and experimental approaches we will test the hypotheses that there is greater Lyme disease risk in areas of (1) higher deer density and (2) higher rodent density; and (3) *Borrelia afzelii*, the rodent genotype, is more prevalent with increasing rodent densities.

This 3.5yr studentship is funded under the James Hutton

Institute/University Joint PhD programme, in this case with the University of Glasgow as the degree-awarding partner. Candidates are urged strongly to apply as soon as possible so as to stand the best chance of success. A more detailed plan of the studentship is available to suitable candidates upon application. Funding is available for European applications, but Worldwide applicants who possess suitable self-funding are also invited to apply.

References 1. Millins, C., Magierecka, A., Gilbert, L., Edoff, A., Brereton, A., Kilbride, E., Denwood, M., Birtles, R., Biek, R. (2015) An invasive mammal (grey squirrel, *Sciurus carolinensis*) commonly hosts diverse and atypical genotypes of the zoonotic pathogen *Borrelia burgdorferi sensu lato*. Applied and Environmental Microbiology AEM 00109-15 2. Gilbert, L. (2015) Louping ill virus in the UK: a review of the hosts, transmission and ecological consequences of control. Exp Appl Acarol (published online 27/07/15) 3. James, MC, Gilbert, L, Bowman, AS & Forbes, KG (2014) The heterogeneity, distribution and environmental associations of *Borrelia burgdorferi sensu lato*, the agent of Lyme borreliosis, in Scotland. Frontiers in Public Health 2: 129. 4. Gilbert, L. (2013) Can restoration of afforested peatland regulate pests and disease? J. Appl. Ecol. 50, 1226-1233 5. James, MC, Bowman, AS, Forbes, KJ, Lewis, F, McLeod, JE and Gilbert, L (2013) Environmental determinants of *Ixodes ricinus* ticks and the incidence of *Borrelia burgdorferi sensu lato*, the agent of Lyme borreliosis, in Scotland. Parasitol. 140: 237-246.

For informal inquiries please contact Lucy.Gilbert@hutton.ac.uk

To apply online go to <http://www.hutton.ac.uk/careers/postgraduate> Application deadline: 1 Jan 2016

This is one of two PhD studentships on the evolutionary ecology of ticks and tick-borne pathogens available at the University of Glasgow (also see: <http://www.findaphd.com/search/ProjectDetails.aspx?PJIDi447&LIDU9>). Both positions are competing against other projects advertised at the same time and awards will be made to the strongest candidates or candidate/project combinations.

Dr Lucy Gilbert Senior Animal Ecologist The James Hutton Institute Craigiebuckler Aberdeen AB15 8QH UK Tel: + 44 (0)1224 395187 Fax: + 44 (0)844 928 5429 <http://www.hutton.ac.uk/staff/lucy-gilbert> Lucy.Gilbert@hutton.ac.uk

New tools, old ticks - uncovering the transmission biology of disease

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Uillinois Evolutionary Genomics Informatics

The Catchen and Fuller labs at the University of Illinois at Urbana-Champaign are looking to recruit Ph.D. students interested in evolutionary and comparative genomics of teleost fishes. Projects in the two labs are focused on population genomics, comparative genomics, and the genomic architecture of speciation. Projects related to these topics may include a computational focus, including techniques such as genome assembly, genetic map construction, genotype-by-sequencing analysis, and programming in scripting or low-level languages. The University of Illinois is home to a strong collection of faculty researching ecology and evolution in the Department of Animal Biology and the School of Integrative Biology. Students have the option of applying directly to the department of Animal Biology, or the interdisciplinary Program in Ecology, Evolution, and Conservation Biology (PEEC, [http:// https://sib.illinois.edu/peec/](http://https://sib.illinois.edu/peec/)). Champaign and Urbana are great college towns close to three major cities including Chicago. For more information on the Catchen lab please visit the lab website: <http://catchenlab.life.illinois.edu>; and for the Fuller lab: <http://www.life.illinois.edu/fuller/>. Interested students are encouraged to contact Dr. Catchen (jcatchen@illinois.edu) or Dr. Fuller (fuller@life.illinois.edu). Please include a brief description of your research interests and a CV in your email. Note that the target date for applications for Fall 2016 admission is January 1st, 2016.

“jcatchen@illinois.edu” <jcatchen@illinois.edu>

Lord Kelvin Adam Smith 4-year PhD studentship at the University of Glasgow

UKentucky QuantitativeEvolution

The Van Cleve lab in the Department of Biology at the University of Kentucky is currently recruiting Ph.D. students to join the lab in Fall 2016. The lab is generally interested in quantitative and mathematical approaches to evolutionary biology and ecology and current research areas include social evolution, phenotypic plasticity and bet-hedging, and epigenetic processes including genomic imprinting.

Additionally, the lab aims to be broadly interdisciplinary across complex biological systems from the molecular to metapopulation scales and welcomes applicants interested in quantitative approaches and with diverse backgrounds including (but not limited to) mathematics, physics, computer science, and economics.

The exact research project topics for potential students are flexible, though interested individuals should contact Jeremy Van Cleve (jvanclave@uky.edu) with a CV and short statement of interests before applying.

Applicants should apply to the Department of Biology Graduate program (<https://bio.as.uky.edu/grad-program>), and admission guidelines can be found at: <https://bio.as.uky.edu/admissions-0> . Questions about the Biology Graduate program can be sent to the Director of Graduate studies, David F. Westneat (biodfw@uky.edu).

Please note that applications should be received by January 1st 2016 for full consideration.

– Jeremy Van Cleve

Assistant Professor Department of Biology University of Kentucky E-mail: jvanclave@uky.edu Webpage: <http://vanclave.theoretical.bio> Phone: (859) 218-3020

“jvanclave@uky.edu” <jvanclave@uky.edu>

UKonstanz Germany EvoDevo

PhD POSITION IN EVOLUTIONARY AND DEVELOPMENTAL BIOLOGY: Molecular mechanisms of the repeated evolution of color patterns in cichlid fishes

The Department of Biology, University of Konstanz, Germany and the International Max Planck Research School for Organismal Biology (IMPRS) invites applications for a PhD position (TV-L E13 60%). The position is funded by the Baden Württemberg Stiftung as part of the Eliteprogramm für Postdocs and available from April 2016 or later (application deadline: 15.1.2016). We are seeking highly qualified students holding a M.Sc. (or equivalent) with a strong interest in developmental biology, genetics, and evolutionary biology. High motivation, creativity and a cooperative personality are expected. Applicants should ideally have a background in developmental biology and/or genetics and practical skills in molecular techniques. Prior experience with fish is preferred, but not essential. We offer a PhD position for three years within a highly competitive multidisciplinary and international research environment. The PhD program of the IMPRS graduate school offers a comprehensive mentoring program, specific courses for organismal biology and support for career development.

The project focuses on the molecular mechanisms that underlie the development of coloration traits in cichlid fishes. The distinctiveness of their color patterns is well captured by the German popular name - Buntbarsche, or colorful perches. Many of these exuberant color patterns have evolved repeatedly in different species and even within different lakes. Yet, still little is known about the genetic changes that are necessary to generate these traits. In particular this project addresses the repeated evolution of stripe patterns within cichlids. Here, horizontal stripe and vertical bar patterns occur and evolved repeatedly in different lakes in the African Rift Valley. These are driven by ecological adaptations to similar habitat environments. The project will take advantage of genetic [e.g. QTL (Quantitative Trait Loci) mapping], genomic (targeted genome sequencing) and state-of-the-art molecular and developmental biology approaches (transgenesis, genome editing and chromatin immunoprecipitation). The aim of the project will be to analyze the genetic and molecular basis of an ecologically well- described adaptive phenotype that evolved repeatedly within short evolutionary times.

Application: Application deadline is January 15, 2016. Interested applicants should apply through the IMPRS homepage: www.orn.mpg.de/2383/Application . The University of Konstanz encourages disabled persons to apply. They will be given preference if appropriately qualified. The University is an equal opportunity employer that tries to increase the number of women in research. We are a family-friendly institution and committed to further the compatibility of work and family life.

Contact: Dr. Claudius Kratochwil Axel Meyer
Lab Department of Biology & Zukunftskolleg Uni-
versity of Konstanz 78457 Konstanz Germany
claudius.kratochwil@uni-konstanz.de

More Information: <http://www.orn.mpg.de/3639391/-Meyer-Kratochwil> www.evolutionsbiologie.uni-konstanz.de www.claudius-kratochwil.com – Claudius Kratochwil, PhD Postdoctoral Fellow Department of Biology - Meyer Lab - Room M823 University of Konstanz D-78457 Konstanz, Germany

Tel: +49 (0) 7531 884583 E-mail: claudius.kratochwil@uni-konstanz.de
Homepage: <http://www.claudius-kratochwil.com> Claudius Kratochwil <claudius.kratochwil@uni-konstanz.de>

vector-borne disease ecology, and the processes involved in the emergence of novel diseases or the spread of diseases into new geographic ranges.

For a full description of the project and how to apply see <http://www.nercdtp.leeds.ac.uk/projects/-index.php?id=3D252> or contact Dr Simon Goodman (s.j.goodman@leeds.ac.uk)

Dr Simon Goodman School of Biology University of Leeds Leeds, LS2 9JT, UK

Tel: +44-(0)113-3432561 Email: s.j.goodman@leeds.ac.uk
Twitter: @DrSimon_Goodman
Simon Goodman <S.J.Goodman@leeds.ac.uk>

ULeeds AvianMalariaInGalapagos

PhD studentship open to UK & EU citizens as part of the Leeds-York NERC Doctoral Training Programme (<http://www.nercdtp.leeds.ac.uk/>)

Disease Ecology of Avian Malaria in the Galapagos Archipelago

Jointly supervised by Dr Simon Goodman (School of Biology, University of Leeds, UK), Prof Andrew Cunningham (Zoological Society of London, UK), Prof Patricia Parker (University of Missouri, USA) and Dr Rupert Quinell (SoB, Leeds, UK)

Closing date for applications: 11th January 2016

Project summary : This project will build on our previous studies of the disease ecology and genetics of mosquito-borne diseases in the Galapagos Islands and the implications for health and conservation of endemic bird species in the archipelago. We will examine the role that native and introduced mosquito species play in the transmission of plasmodium parasites, and the potential for spill-over of potentially pathogenic plasmodium strains from migratory and introduced bird species into Galapagos endemic avifauna. The project will generate new knowledge on the disease ecology of plasmodium parasites within Galapagos bird communities and relative roles of native and introduced mosquitoes in plasmodium disease cycles, using a range of ecological, laboratory, and population/evolutionary genetic approaches. The results will help guide conservation strategies and biosecurity policies with regard to avian disease and invasive vectors in Galapagos. The work will also extend our general understanding of avian

ULeicester GibbonEvolGenomics

WHAT: 4 year MIBTP iCASE studentship in Gibbon evolutionary genomics WHERE: University of Leicester, in partnership with Twycross Zoo, UK WHEN: Application Deadline 6th January 2016, Interviews Jan / Feb 2016, Start Oct 2016

Dear EvolDir members,

I am delighted to say that Dr Ed Hollox and I are in receipt of a 4 year fully funded (for UK / EU students) MIBTP (Midlands Integrative Biosciences Training Partnership) PhD studentship under the BBSRCs iCASE scheme. We are looking for enthusiastic graduate students to study the molecular genomics of Gibbon transposable elements and their impact on the genome fluidity in this group of small apes.

The studentship is held in partnership with Twycross Zoo, which has one of the largest primate collections in the world and is a specialist in Gibbon research and conservation. The Zoos Director of Life Sciences, Dr Charlotte MacDonald is Chair of the Gibbon Taxon Advisory Group for the European Association of Zoos and Aquaria, and will be the non-academic supervisor of the project.

The student will work in the Department of Genetics at the University of Leicester on a molecular genomic analysis of Gibbon mobile DNA, but will also undertake placements at Twycross Zoo to study the management, curation and promotion of the Zoos collection of endangered Gibbon species.

Full details of the project, the iCASE MIBTP programme, and how to apply can be found at the MIBTP website: <http://www2.le.ac.uk/colleges/medbiopsych/>

[research/Postgraduate%20Opportunities/mitbp-at-the-university-of-leicester](http://www2.le.ac.uk/colleges/medbiopsych/-research/Postgraduate%20Opportunities/mitbp-at-the-university-of-leicester) Informal enquiries may be made by email.

Best Wishes,

Richard

Dr Richard Badge Lecturer in Bioinformatics

Department of Genetics, University of Leicester, University Road, Leicester, LE1 7RH, UK

T: 0116 2525042 E: rmb19@le.ac.uk

rmb19@leicester.ac.uk

ULeicester NGS wildlifeConservation

A 4year iCASE PhD studentship, fully funded for UK / EU students, is available at the University of Leicester, UK , in conjunction with Illumina (UK) as part of the BBSRC Midlands Integrative Biosciences Training Partnership (MIBTP).

Subject: Next Generation Sequencing for non-human forensics and conservation

Supervisors: Dr Celia A May, Prof Mark A Jobling, Dr Jon H Wetton (University of Leicester) and Nicola Oldroyd (Illumina, UK).

Informal enquiries to primary supervisor Dr Celia May (cam5@le.ac.uk).

Full details of the iCASE MIBTP programme, and how to apply can be found at the MIBTP website: <http://www2.le.ac.uk/colleges/medbiopsych/-research/Postgraduate%20Opportunities/mitbp-at-the-university-of-leicester> Application Deadline: 6 January 2016 Interviews: Week commencing 25 January 2016 Start Date: 26 September 2016

Project Description: Over the last decade, NGS has revolutionised biology allowing cost-effective characterisation of whole genomes; this holds great promise as the next innovation in forensic analysis too. Illumina has developed a human forensic NGS kit that allows simultaneous testing of multiple autosomal and Y-specific STRs, mtDNA and single nucleotide polymorphisms (SNPs). This multi-target approach conserves biological material whilst maximizing discrimination and efficiency. This same approach could be applied to animal and plant forensic evidence allowing both human and non-human tests to be performed using a common platform, bioin-

formatics pipeline, and ultimately reporting procedure.

This iCASE studentship will explore the approach as applied to birds of prey. Theft from the wild for resale to the falconry trade has been a lucrative undertaking and DNA testing via classical approaches has already led to many court cases in the UK. However, nowadays, forensic service providers cannot support such specialised tests but an NGS approach could circumvent this. Furthermore, since birds of prey are indicator species of the environment, the developed multiplexes may also be a useful tool for molecular ecologists and conservation biologists. The project will involve mutation rate analysis to establish exclusion probabilities, creation of population reference databases, and multiplex design, validation and implementation on the Illumina MiSeq platform.

The industrial partner, Illumina is a global leader in genomics, developing and manufacturing platforms and associated consumables as well as providing bioinformatics solutions for modern day analyses of genetic variation. The successful applicant will undertake a placement within Illuminas UK specialist forensic genomics division during which they will

- receive comprehensive practical training on the Illumina NGS platforms,
- be trained in NGS data interpretation, specifically in the context of forensic analysis and case reporting, using ForenSeq analysis software and other data analysis pipeline packages as appropriate,
- be placed within one of Illuminas development teams, working alongside highly skilled application scientists to develop high quality commercial laboratory skills, e.g. working to appropriate ISO accreditation standards,
- be involved in commercial sales and marketing activities such as seminars and conferences with the opportunity to present on project findings,
- be able to take advantage of Illumina internal training programs to gain a wider understanding of all Illumina-supported applications, techniques and technologies.

To reflect industry practice, a performance-dependent annual supplement to the student stipend may be negotiated with Illumina after the first year. Travel and subsistence costs for attendance at and support of Illumina sales and marketing events will also be met.

Dr Celia A May Department of Genetics University of Leicester LEICESTER LE1 7RH tel: 0116 252 3032/3413 fax: 0116 252 3378

“May, Celia A. (Dr.)” <cam5@leicester.ac.uk>

UMacquarie QflyBacteria

A PhD opportunity is available on a project investigating olfactory relationships between *Bactrocera* fruit flies and associated bacteria.

Expressions of interest close at midnight on Friday 15 January 2016

Bacteria are pervasive in the lives of *Bactrocera* fruit flies, some as pathogens, some as symbionts, and some as key elements of nutrition. How do *Bactrocera* fruit flies avoid harmful bacteria and locate beneficial bacteria? This project will investigate the olfactory responses of *Bactrocera* fruit flies, especially Queensland fruit fly, to odors produced by the diverse bacteria with which their ecology is intimately interwoven. Activities will include travel for the collection of bacteria and their odors, qualitative analysis of odors (e.g., by GC-MS), synthesis and testing of each identified component, and assays to test for biological activity (e.g., GC-coupled electroantennogram, wind tunnel, field trials).

The successful candidate will carry out research jointly at Macquarie University in Sydney, Australia, and at New Zealand Institute of Plant & Food Research at Lincoln, New Zealand, and will spend substantial periods working at each institution. Supervision and support at Macquarie University will come from Dr Ian Jamie, A/Prof Joanne Jamie (Department of Chemistry and Biomolecular Sciences, <http://cbms.mq.edu.au/>), and A/Prof Phil Taylor (Department of Biological Sciences, <http://bio.mq.edu.au/>). Supervision and support at New Zealand Institute for Plant & Food Research will come principally from Dr Flore Mas. At each institution, there is ample opportunity for additional collaboration and support as needed for project components that might require additional specialist expertise.

Activities of this project are supported by the \$3.7m Australian Research Council (ARC) Industrial Transformation Training Centre for Fruit Fly Biosecurity Innovation that has its hub at Macquarie University, and nodes at Queensland University of Technology and Western Sydney University. Other partners in the Centre include New Zealand Institute for Plant & Food Research (NZ PFR), New South Wales Department of Primary Industries (NSW DPI), Commonwealth Scientific and Industrial Research Organisation (CSIRO), Queensland Department of Agriculture Fisheries and Forestry (QDAFF), and Ecogrow Environmental Pty

Ltd. Collectively, these institutions bring vast expertise and research capacity to this research program, and maintain a highly collaborative research culture. Accordingly, this project will be very well supported in terms of supervision, collaborative opportunities, facilities and funding.

The successful candidate will join a large community of actively engaged researchers working on diverse aspects of fruit fly behaviour, chemistry, physiology, ecology, genomics, molecular biology, and management. Macquarie University is home to the Biosecurity Futures Research Centre that supports a wide diversity of terrestrial and aquatic biosecurity research. Macquarie University is set in a park-like campus just 20 minutes from the centre of Sydney, next to Lane Cove National Park.

A scholarship is available to eligible candidates to undertake either: * Research Training Pathway (RTP/iRTP) Masters of Research (MRes) Year 2 followed by a 3 year PhD, for candidates with an Honours degree or a Masters degree that includes a minor research component. This is referred to as an MRes/PhD 'bundle offer'. OR * Direct entry into a 3.5 year PhD program, for candidates with a Research Masters degree that includes a substantial research component. The value and tenure of the scholarship is: * The ARC ITTC stipend is \$30,746 pa (2016 rate, subject to indexation, tax free) for up to four years for an MRes/PhD bundle offer or for 3.5 years for direct entry to PhD. * International candidates successful for these scholarships are also awarded a tuition fee scholarship covering tuition fees at Macquarie University for up to four years.

To be eligible for a scholarship, applicants are expected to have a record of excellent academic performance and preferably additional relevant research experience and/or peer-reviewed research activity, awards and/or prizes in line with the University's scholarship rating guidelines. Refer to the Rating Scholarship Applicants section for more information about these guidelines. Students on scholarships are not obliged to contribute to teaching, but may do so to supplement their income if desired. In addition to substantial financial resources to draw on for research, several generous schemes are available to fund travel to visit overseas laboratories or to attend overseas conferences.

Enquiries are welcome, and interested applicants are encouraged to make initial informal contact before applying. Interested applicants should email a letter of interest, academic transcripts, curriculum vitae and

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mcmaster.ca/~brian/evoldir.html

UMontana Evolutionary Genomics

The Good lab at the University of Montana in Missoula is looking to recruit Ph.D. students interested in evolutionary genomics.

Current research projects in the lab are focused on the genetic basis of reproductive isolation, molecular evolution, hybridization in natural populations, and adaptation to novel environments. These topics are addressed using diverse approaches including population genomics, transcriptomics, and quantitative genetics. Based on current project openings, students interested in speciation are particularly encouraged to apply. All lab projects involve the generation and analysis of large-scale genomic datasets, and so a strong interest in genomics is a prerequisite.

The University of Montana is home to a strong collection of faculty researching ecology and evolution. The Division of Biological Sciences hosts an excellent graduate program in Organismal Biology and Ecology (OBE) with an emphasis on interdisciplinary training in evolution, genetics, ecology, physiology, and behavior. Missoula is a great college town in the heart of the Northern Rocky Mountains.

For more information on the Good lab please visit the lab website:

<http://good-lab.dbs.umt.edu/> Interested students are encouraged to contact Dr. Good (jef-frey.good@umontana.edu). Please include a brief description of your research interests and a CV in your email. Note that the target date for applications for Fall 2016 admission to the OBE program is December 1st.

– Jeffrey M. Good, Ph.D.

Assistant Professor Division of Biological Sciences
The University of Montana 32 Campus Drive, HS104
Missoula MT 59812 Phone: 406-243-5771 Fax: 406-243-4184 Website: <http://good-lab.dbs.umt.edu/> jef-frey.m.good@gmail.com

UMontana Microbial Evolution

The Miller lab in the Division of Biological Sciences at The University of Montana in Missoula is recruiting graduate students interested in microbial evolution for Fall 2016.

The lab takes an integrative approach combining genomics, genetics and physiology to understand the origins, maintenance and distribution of microbial diversity, with an emphasis on microorganisms living in extreme environments. Current research projects are focused on adaptation to novel environments and the mechanisms of population divergence along environmental gradients. More information on the Miller lab can be found at hs.umt.edu/dbs/labs/miller.

The Division of Biological Sciences is home to a strong and highly interactive faculty with research interests in evolution and ecology and includes graduate programs in Organismal Biology and Ecology (OBE) and Cellular, Molecular and Microbial Biology (CMMB). Nestled in the heart of the Northern Rockies, Missoula is great college town surrounded by open space with year-round outdoor opportunities.

Please contact Scott Miller (scott.miller@umontana.edu) for more information. Please include a CV and a brief description of your research interests.

“Scott.Miller@mso.umt.edu”
<Scott.Miller@mso.umt.edu>

UMuenster 2 Evolution

2 PhD stipends within the interdisciplinary Muenster Graduate School of Evolution: PhD projects in Biology, Medicine, or Philosophy

The Muenster Graduate School of Evolution (MGSE) offers 2 PhD positions funded by DAAD-stipends for international (non-German) students within the stimulating environment of the University of Muenster, Germany. As an interdisciplinary graduate school, the MGSE uses the unifying concept of evolution to bridge the faculties of Biology, Medicine, Geosciences, Mathematics, and Philosophy. PhD students work on their diverse

disciplinary projects in one of the involved institutes and benefit from interdisciplinary curricular activities as well as a structured supervision and support throughout their PhD. The MGSE is based in the stimulating city of Muenster near Muenster's City Palace and offers a family friendly and international atmosphere.

Location: Muenster, Germany

Working Language: English

Start of the PhD: October 2016

Duration: 3 years (4 years for students from developing and emerging countries)

You can apply for one or several of the following nine projects. Each project involves high-quality research and state-of-the-art techniques and is supervised by excellent researchers.

Please click here to view the project descriptions

- 1) The genetic origin of novel protein coding genes and their evolutionary constraints Supervisor: Prof. Dr. Erich Bornberg-Bauer (Research Group Evolutionary Bioinformatics, Institute for Evolution and Biodiversity, University of Muenster) Co-supervisor: Prof. Dr. Jürgen Gadau (School of Life Science, Arizona State University)
- 2) Epistasis, evolvability and mutational robustness Supervisor: Prof. Dr. Erich Bornberg-Bauer (Research Group Evolutionary Bioinformatics, Institute for Evolution and Biodiversity, University of Muenster)
- 3) Characterization of plasmid diversity and evolution in multi-resistant *Escherichia coli* isolated from humans and productive livestock Supervisor: Prof. Dr. Ulrich Dobrindt (Research Group Microbial Genome Plasticity, Institute of Hygiene, University Hospital Muenster)
- 4) The role of heat shock protein 90 for evolvability Supervisor: Prof. Dr. Joachim Kurtz (Research Group Animal Evolutionary Ecology, Institute for Evolution and Biodiversity, University of Muenster)
- 5) Interactions of animal personality, social environment and immunity Supervisor: Prof. Dr. Joachim Kurtz Co-Supervisor: Dr. Jörn Scharsack (both Research Group Animal Evolutionary Ecology, Institute for Evolution and Biodiversity, University of Muenster) In collaboration with: Prof. Norbert Sachser (Department of Behavioural Biology, Institute of Neuro and Behavioural Biology, University of Muenster)
- 6) Functional consequences of evolutionary conservation vs. variability in the influenza virus genome Supervisor: Prof. Dr. Stephan Ludwig (Institute of Molecular Virology, Center for Molecular Biology of Inflammation, University of Muenster)

7) Mobilome of Apicomplexa parasites Supervisor: Prof. Dr. Wojciech Makalowski (Comparative Genomics, Institute of Bioinformatics, University of Muenster)

8) Circadian rhythm, adaptation and the evolution of immune genes Supervisor: Prof. Dr. Monika Stoll Co-Supervisor: Dr. Shirin Glander (both Genetic Epidemiology, Institute of Human Genetics, University Hospital Muenster)

9) Evolutionary patterns in coding and non-coding genes within a DCM susceptibility locus Supervisor: Prof. Dr. Monika Stoll Co-Supervisor: Dr. Frank Rühle (both Genetic Epidemiology, Institute of Human Genetics, University Hospital Muenster)

More information on the projects can be found here: <http://www.uni-muenster.de/Evolution/mgse/-jobs/index.html> Highly qualified and motivated candidates all over the world are invited to submit their application.

Requirements:

- MSc (or an equivalent degree) relevant for the respective project (Biology, Medicine, Mathematics, or Philosophy). At the time of application, generally no more than six years should have passed since you gained the last degree.
- Excellent academic record, interest to work interdisciplinary, and motivation to actively participate in the structured PhD program of the MGSE.
- Fluency in spoken and written English (or willingness to take part in a respective course).
- Only international (non-German) applicants can be accepted. At the time of application you should not be living in Germany for more than 15 months.
- Applications from women are particularly encouraged. Handicapped candidates with equivalent qualifications will be given preference.

Application procedure:

You can apply for one or several of the listed projects by 10 December 2015. Please send your application (cover letter in English, curriculum vitae, relevant certificates), by email as one PDF file to the MGSE

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UNebraska EvolGenetics

Graduate positions in Evolutionary Genetics and Genomics

University of Nebraska

The School of Biological Sciences at the University of Nebraska has a newly expanded evolutionary genetics group, and we are seeking highly motivated students to join our graduate program in Fall 2016. Our group is especially strong in the areas of functional evolutionary genetics and genomics.

Faculty doing research in evolutionary genetics and genomics at UNL include:

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

Kristi Montooth (<http://montoothlab.unl.edu/>)

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

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

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

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

We offer generous graduate student support, an extremely collegial and interactive environment for doing science, excellent biotech and computational facilities, and access to the Cedar Point Biological Station. Lincoln, Nebraska is a great midwestern college town with a high quality of life, a thriving arts scene, and over 130 miles of bike trails (<http://lincoln.ne.gov/city/parks/-parksfacilities/trails/>).

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

<http://biosci.unl.edu/directory-group> Interested students are encouraged to contact faculty directly with a letter of interest and CV. Deadline for applications is 15 December. For more information, see: <http://biosci.unl.edu/graduate> Jay Storz <jstorz2@unl.edu>

UNeuchatel PlantSystematics

PhD Position in Evolutionary botany (60%) At the Laboratory of Evolutionary botany of the Institute of Biology, Université de Neuchâtel, Switzerland

Starting date : 01.12.2015, or a later date to be agreed
Work place : Université de Neuchâtel, Switzerland

Brief description of the research domain : Plant taxonomy, systematics, pteridophytes, ferns, moonwort, Botrychium (Ophioglossaceae)

Job description : Teaching assistant position in the laboratory of Evolutionary botany. This position involves teaching (undergraduate labs in systematic botany and field botany excursions in Switzerland) and other duties in the laboratory. The project concerns the taxonomy and systematics of the moonwort fern *Botrychium lunaria* (Ophioglossaceae) worldwide. Our recent phylogenetic analyses have identified a number of groups within *B. lunaria* that require further molecular studies and detailed morphological analyses. Generally conservative DNA regions contrast with significant morphological variation. This fern has a circumboreale distribution with disjunct populations in southern latitudes. The greatest gaps in our sampling remain in Asia (Turkey, Caucasus, Russia, Mongolia, China) where fieldwork and local collaboration will be concentrated.

Scientific requirements : The successful applicant is highly motivated and passionate about plant taxonomy, fieldwork, and plant collecting. He or she will also be familiar with the latest laboratory techniques and analytical software in plant systematics. Good knowledge of the central European flora would be beneficial.

Language requirements : Good oral and written communication skills in English are required and knowledge of the French language constitutes an advantage.

How to apply : Applications must be sent by e-mail to Jason.grant@unine.ch, with cover letter, CV (including a brief description of your practical experience and grades, publications if any), a brief statement of scientific interests (no more than two pages) and two academic references.

For further information, please contact Jason Grant, Jason.grant@unine.ch, web (<http://www2.unine.ch/evobot/page-11480.html>; <http://www3.unine.ch/jason.grant> GRANT Jason Randall

<jason.grant@unine.ch>

UNevada Reno EvolutinaryBiol

The Department of Natural Resources and Environmental Science (NRES), University of Nevada Reno (UNR) has 3 graduate teaching assistantships (GTA) for the 2016-2017 academic year that will be awarded on a competitive basis to Ph.D. students. Accepted students will be guaranteed funding for up to four consecutive years. Prospective Ph.D. students must be advised by an NRES faculty member (see <http://www.unr.edu/nres/people>) and are expected to pursue a doctoral degree through one of four interdisciplinary graduate programs that NRES faculty participate in: Ecology Evolution and Conservation Biology (<http://www.unr.edu/degrees/ecology-evolution-and-conservation-biology>); Graduate Program of Hydrologic Sciences (<http://www.hydro.unr.edu/Default.aspx>); Environmental Sciences and Health (<http://www.unr.edu/esh>); and Atmospheric Sciences (<http://www.unr.edu/degrees/atmospheric-science>).

To apply, prospective students should first correspond with an NRES faculty member. The faculty member who has agreed to serve as a major advisor will submit a prospective student nomination packet, which includes curriculum vitae, transcripts, GRE scores, statement of interest, and 3 recommendation letters. Prospective students should also apply for admittance to their desired interdisciplinary program through the UNR Graduate School application web site (<http://www.unr.edu/grad/admissions>) by the application deadline for the desired program or February 1, whichever is earlier. Nomination packets must be submitted by faculty on behalf of the student by February 1, 2016 for full consideration. NRES expects to notify applicants by the end of February about GTA funding decisions.

A land grant university, UNR is classified by the Carnegie Foundation as a high research, comprehensive doctoral university, and as “among the best national universities” by US News and World Report. Reno is located in the Sierra Nevada mountains near Lake Tahoe and was recently rated one of the best small cities in the US for outdoor recreation and overall quality of life.

NRES is one of the premier research units on campus. The Department has over 430 undergraduates, 60 graduate students, 18 full-time faculty, and an annual average of \$4.4 million in awards from state, regional

and national funding competitions. NRES is an interdisciplinary department with strengths in landscape ecology, fate and transport of contaminants in the environment, ecology and conservation of wildlife and their habitats, range and forest ecology, ecohydrology and water quality management, conservation genetics, plant population biology and physiological ecology, soil science, ecological restoration, and ecosystem modeling. More information about NRES is at <http://www.unr.edu/nres>. The University of Nevada, Reno is committed to Equal Employment Opportunity/Affirmative Action in recruitment of its students and employees and does not discriminate on the basis of race, color, religion, sex, age, creed, national origin, veteran status, physical or mental disability, and sexual orientation, or genetic information, gender identity, or gender expression. The University of Nevada, Reno employs only United States citizens and aliens lawfully authorized to work in the United States. Women, under-represented groups, individuals with disabilities, and veterans are encouraged to apply.

mmatocq@cabnr.unr.edu

UOklahoma EvolutionaryGenomics

Graduate student positions are available in the Department of Biology at the University of Oklahoma. Research in the Broughton lab (<http://www.biosurvey.ou.edu/dna/>) involves a range of topics in molecular evolution and evolutionary genomics. We are increasingly interested in evolution of aerobic metabolism pathways in relation to adaptation and organismal performance. Specifically, this includes investigation of how changes in oxidative phosphorylation genes translate to differences in oxphos function and how functional variation may limit or facilitate evolution of diverse energetic lifestyles. Because energy availability has a major influence on adaptation and life history, aerobic metabolism may be an important driver of the diversity of life. In addition, incompatibilities of oxphos genes (e.g. mito-nuclear interactions) may influence hybridization and speciation. We focus primarily on fishes but are also involved with other animal groups. We seek energetic and highly motivated individuals to join our group. Successful applicants will have strong interest (or experience) in several of the following: genomic methodologies (particularly RNA-seq, transcriptomics), computational data analysis, high resolution respirometry and molecular evolutionary/phylogenetic analyses. Those with interests in other aspects of fish evolution

will also be considered. The Biology Dept. at OU is home to an energetic, interactive, and diverse group of students enrolled in the Biology and EEB PhD programs (see <http://www.ou.edu/cas/biology> and <http://www.ou.edu/eeb/>). For more information please contact Richard Broughton (rbroughton@ou.edu). – Richard E Broughton Professor of Biology Oklahoma Biological Survey Department of Biology University of Oklahoma

Richard Broughton <rbroughton@ou.edu>

UOtago EvolutionEpigenetics

PhD position in Epigenetics

We seek a highly motivated and enthusiastic student for a fully funded (Marsden Fund) PhD scholarship position, commencing in 2016. The project will investigate how the accumulation of challenges experienced as males age affects subsequent generations, and identify key candidate genes for transgenerational effects observed. This work will use a vertebrate model, the zebrafish (*Danio rerio*), and involves extensive experimental work manipulating environmental stressors (e.g. toxins, hypoxia, chemical alarm cues), phenotyping to assess personality and life-history traits, breeding the lines through to obtain multigenerational data, and the generation and analysis of next-generation sequence data. The student will join the Behavioural & Evolutionary Ecology Group, led by Dr. Sheri Johnson, in the Zoology Department at the University of Otago in Dunedin, New Zealand.

This project also involves an exciting multidisciplinary team of collaborators: Prof Neil Gemmill (U. Otago), Dr Tim Hore (U. Otago), A/Prof Shinichi Nakagawa (U. New South Wales), and A/Prof Simone Immler (Uppsala University).

For more information on the project: <http://www.royalsociety.org.nz/2015/11/05/do-older-males-deliver-good-epigenetics/>

Selection/admission criteria: We seek a student with a strong academic record, a keen interest in behavioural ecology and/or evolutionary biology, appropriate practical and technical experience, and a demonstrated ability in written and oral communication. The ideal candidate will be interested in both the phenotypic and epigenetic/genetic aspects of the project, but students interested in only the phenotypic aspects (or vice versa) are still encouraged to inquire about the project. The

ideal candidate is expected to hold a relevant Hons / MSc degree and must be eligible to enrol in the University of Otago's PhD (3 year) programme. This PhD scholarship has an annual stipend of NZ\$25,000 (tax free) plus student fees for a period of 3 years, subject to satisfactory progress. International (i.e. non-New Zealand resident) students are welcome and encouraged to apply.

Application: If you are interested in joining our exciting project at Otago, please send an e-mail with an expression of interest and your CV to Sheri Johnson (sheri.johnson@otago.ac.nz), ideally by November 30, 2015 (though the position will remain advertised until filled).

For information on PhD study at the University of Otago, including entry requirements, see: <http://www.otago.ac.nz/postgraduate/index.html> . For information on the Department of Zoology, see: <http://www.otago.ac.nz/zoology> .

UOtago NewZealand ConservationGenomics

Evolution and conservation of the world's rarest wading bird

A PhD position in conservation genomics is available to study the evolution and conservation of New Zealand bird species with Dr Michael Knapp at the University of Otago, Dunedin, New Zealand.

The New Zealand bird fauna is under threat from introduced predators as well as from non-native competitors and interbreeding with closely related introduced species. This project will evaluate the impact of interbreeding between the world's rarest wading bird, the Black Stilt, and its more common, non-native relative, the Pied Stilt. The research will include analyses of modern and ancient DNA and conduct genome wide analyses of both species. Based on the results from these studies, the project will develop conservation strategies for the Black Stilt. The project is part of our new, Royal Society funded research programme, which uses genomic data to address key questions of bird evolution and conservation in New Zealand's unique environment.

The ideal PhD student will have skills in molecular ecology/population genetics and/or bioinformatics and genome data analyses.

For details and instructions on how to apply, please visit

<http://anatomy.otago.ac.nz/phd-opportunities>, where you will find all our currently available PhD positions along with application details.

Please apply by 30/Nov/2015.

Dr Michael Knapp Rutherford Discovery Fellow Senior Lecturer in Biological Anthropology Department of Anatomy University of Otago Dunedin New Zealand

Michael Knapp <michael.knapp@otago.ac.nz>

USheffield EvolutionAgeing

A PhD position is open at the department of Animal and Plant Sciences of the University of Sheffield, as part of the ACCE DTP program.

On: The evolution and genetics of ageing: adapting to changes in life expectancy and reproductive opportunities.

Supervisors: Dr Mirre Simons (University of Sheffield) & Dr Joao Pedro de Magalhães (University of Liverpool). email: m.simons@sheffield.ac.uk

Apply online visit (note UK residency rules apply for stipend): acce.shef.ac.uk/the-evolution-and-genetics-of-ageing-adapting-to-changes-in-life-expectancy-and-reproductive-opportunities

Application deadline: 11 January 2016

Project description (short, for a longer description please follow link):

All organisms age and at first glance this is an evolutionary paradox. Why would organisms age if living longer could increase Darwinian fitness? Evolutionary theory explains that extrinsic causes of death (e.g. harsh weather) select for reproduction at the cost of somatic maintenance, causing physiological ageing. Critically, abrupt environmental change, e.g. global warming, will modulate extrinsic mortality and optimal reproduction, thereby vastly disrupting the selection pressures acting on ageing. To understand such fundamental evolutionary processes and predict responses to environmental change, we need to understand mechanism. To date, however, we have little or no understanding of the mechanisms of ageing. The current project is a multidisciplinary approach to these questions, combining empirical work, genomics and theoretical models.

We seek a hard-working passionate student with a quantitative mind-set and interest in ageing. Candidates

with a diverse life-science background will be considered. The broad scientific expertise of the supervisors ensures a vibrant environment for the student. We will empower the student to pursue his/her own interests and acquire a wide array of skills. Your research will not only have implications for how we understand a key process in evolution, but also for biomedical science in which ageing research is growing in importance.

Mirre Simons <m.simons@sheffield.ac.uk>

USouthCarolina EvolutionaryDiversification

Multiple Ph.D. positions in Evolutionary Diversification.

Ph.D. positions are available in the Dept. of Biological Sciences at USC to join a collaborative project on the evolutionary diversification of photosynthesis in Cryptophytes. Cryptophytes are a widespread group of algae that have a unique and unusually diverse class of photosynthetic pigments (the cryptophyte phycobilins), potentially allowing them to thrive in diverse light environments. Their evolutionary history suggests frequent shifts in the light spectra for which their pigments are specialized. Furthermore, cryptophytes are the product of an ancient secondary endosymbiosis, with nuclear and mitochondrial genomes from an ancestral host, and plastid and nucleomorph genomes from a red algal symbiont. Functional phycobilins require genes from both ancestors, necessitating the evolution of intergenomic cooperation.

Ph.D. candidates will join a project funded by the U.S. National Science Foundation for five years that is aimed at linking variation of spectral irradiance to cryptophyte diversity in environments from ponds to oceans. Ph.D. projects may draw on fieldwork, biogeography, physiological experiments, phylogenomics, molecular evolution, experimental evolution, comparative transcriptomics, and/or phylogenetic comparative analyses. The project is a collaboration between Dr. Tammi Richardson (richardson [at] biol.sc.edu) and Dr. Jeff Dudycha (dudycha [at] biol.sc.edu). Prospective students may contact either Richardson or Dudycha. We anticipate at least one graduate student will join the Richardson lab with a focus on physiological ecology, and at least one graduate student will join the Dudycha lab with a focus on evolutionary genetics. More information about our labs can be found at <http://www.msci.sc.edu/per1> and <http://www.biol.sc.edu/~dudycha>. Information

on the graduate program in biology at USC can be found at <http://www.biol.sc.edu/graduate>. Note that the deadline for application is January 1st. However, we strongly encourage prospective graduate students to contact one or both of us well before then.

The Dudycha lab is also looking to recruit individuals interested in either the diversification of vision, or the role of mutation in the evolution of phenotypic plasticity.

Jeffrey L. Dudycha Associate Professor Dept. of Biological Sciences University of South Carolina Columbia, SC 29208 dudycha [at] biol.sc.edu <http://www.biol.sc.edu/~dudycha> “dudycha@biol.sc.edu” <dudycha@biol.sc.edu>

UStAndrews ComputationalBiol

Microbe Wars: Exploring the Maintenance of Microbial Diversity Using Artificial Life

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

Microbes are the most ubiquitous life form on Earth, found everywhere from exotic locations - black smokers on the ocean bottom - to the inside of every human's gut. They are essential for nearly all life on the planet, driving nutrient cycling in the environment and contributing to the health of plants and animals. Microbes are also critical to industrial biotechnology, especially for fuel, fine chemical and drug production. Thus, understanding how microbial ecosystems are maintained is essential. Evolutionary processes within microbial communities appear fundamentally different than those at play in macro-organisms, requiring specific understanding.

In this studentship, you will develop artificial life simulations to explore evolution and maintenance of biodiversity in microbial communities. You will use machine learning and mathematical modelling to identify and assess strategies leading to stable communities that also maintain biodiversity. You will explore how communities respond to perturbation, corresponding to phenomena such as provision of antibiotics to a patient, and human intervention in industrial and agricultural systems.

Your work will have applications in many areas. It is increasingly clear that the microbial communities within our bodies are key contributors to health: because the beneficial effects of these communities are in danger from both antibiotics and antibiotic-resistant pathogens, understanding how healthy biodiversity can be maintained

in the face of perturbation is essential. Maintenance of soil microbial diversity is important for plant health, and ultimately our food security. Microbial populations in all contexts may share essential features of community assembly, and this project will inform multiple topic areas.

You will gain training in artificial life simulations, genetic algorithms, machine learning, game theory, microbial genomics and metabolism, and mathematical modelling, and will acquire a working knowledge of microbial communities and their importance on our planet.

Your project will take place in St Andrews' Centre for Biology Diversity (CBD) in the School of Biology, and will be jointly supervised by Dr V Anne Smith from the School of Biology, Dr John Mitchell from the School of Chemistry, and Dr Leighton Pritchard from the James Hutton Institute. All three groups work in complementary areas of computational systems biology and machine learning. For more information on their research please visit:

Dr V Anne Smith's research pages: <http://biology.st-andrews.ac.uk/vannesmithlab/> Dr John Mitchell's research pages: <http://chemistry.st-andrews.ac.uk/-staff/jbom/group/> Dr Leighton Pritchard's research pages: <http://www.hutton.ac.uk/staff/leighton-pritchard> EASTBIO - the BBSRC East of Scotland Bioscience Doctoral Training Partnership - is a partnership between the Universities of Aberdeen, Dundee, Edinburgh and St Andrews; the Scottish Universities Life Sciences Alliance (SULSA); and the Scottish Universities Physics Alliance (SUPA). A fully funded 4-year EASTBIO PhD studentship (fees and stipend at the standard rate) is available for Autumn 2016 for candidates with a strong academic record and that satisfy BBSRC studentship eligibility requirements (see <http://www.eastscotbiotp.ac.uk/how-apply-0> if you are unsure - typically UK citizenship required).

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

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

Complete applications must have been received by the University by 14 December 2015.

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

andrews.ac.uk/vannesmithlab/ The University of St Andrews is a charity registered in Scotland : No SC013532

“vas1@st-andrews.ac.uk” <vas1@st-andrews.ac.uk>

USussex Evol GenomicsGuppies

Graduate Position: USussex.Evol.GenomicsGuppies
Genetics of Adaptation in the Trinidadian Guppy

A PhD position is available in evolutionary genetics with Dr. Bonnie Fraser at the University of Sussex (Brighton, UK) in the Evolution, Behaviour, and Environment Group, starting September 2016.

The main goal of our research group (starting at the University of Sussex early 2016) is to investigate how local adaptation shapes evolution at the genomic level using the Trinidadian guppy (*Poecilia reticulata*) as a model system. Guppies in the Northern Mountain Range of Trinidad offer a natural laboratory for studying evolution in action due to their replicated adaptation to different predation regimes. Potential topics include population genomics, quantitative genomics, or comparative genomics. The ideal applicant will have a background in, or desire to learn, bioinformatics (e.g., knowledge of R, Perl, or Python) as well as molecular lab skills. More information can be found on my website (<https://sites.google.com/site/bonniefraserpublish/home>) and the online advertisement (<http://www.findaphd.com/search/ProjectDetails.aspx?PJID=66722>). The position will be co-supervised by Prof. Jeremy Field. More information about the department can be found here: <http://www.sussex.ac.uk/lifesci/ebe/>.

Funding is available for 3.5 years (full fee waiver, stipend Research Council equivalent rate), for UK and EU students only.

Please email me a cover letter/statement of interest, CV, and contacts for two academic references if interested (bonnie.fraser@tuebingen.mpg.de). The application deadline is December 11, 2015, through the University of Sussex website (<http://www.sussex.ac.uk/study/pg/applying/>).

“bonnie.fraser@tuebingen.mpg.de”
<bonnie.fraser@tuebingen.mpg.de>

UtahStateU EvolutionClimateChange

MS opportunity, evolutionary responses to climate change

We seek a Masters student to conduct research on evolutionary responses to climate change. The student will be coadvised by Peter Adler and Zach Gompert at Utah State University. Together we will investigate changes in the genetic diversity of two perennial grass species in a longterm precipitation manipulation experiment in an eastern Idaho sagebrush steppe. We will compare the experimental responses with patterns across an elevation and precipitation gradient. Field sampling will begin in May, 2016. Stipend support will consist of both research and teaching assistantships. To apply, please email a 1) cover letter, 2) CV, 3) description of research experience, and 4) contact information for three references to Peter Adler (peter.adler@usu.edu) by Dec. 1.

zachariah.gompert@aggiemail.usu.edu

UTennessee Knoxville EvolutionaryBiol

Multiple positions are available to join the Department of Ecology and Evolutionary Biology at the U. of Tennessee, Knoxville, to earn your Masters or PhD degree: <http://eeb.bio.utk.edu/graduate-studies/-application-information/>.

Program Highlights:

* Growing department: 2-6 new tenure track faculty starting Aug. 2016.

* Our students have published over 80 papers in the last academic year: Science, Ecology, Systematic Biology, Proceedings of the Royal Society B, American Naturalist, Biological Invasions, Journal of College Science Teaching, and many more.

* PhD graduate placement, for all graduates from 2000-2015: 43% tenure track faculty, 22% postdoc, 15% government, with the others in NGOs, private business, or non-tenure track jobs. For those at least five years after

graduation, 57% tenure track faculty, 3% postdoc, 17% government.

- * Resources to support student research, in addition to external funding (i.e., internal funds, DNA sequencing facility, computer clusters, field station, boats).
- * Available training in teaching best practices, including a certificate in college teaching and training consistent with AAAS national recommendations.
- * Active initiatives to improve diversity in science (i.e., Program for Excellence & Equity in Research (salary, tuition, and training for 2 years), EEB Women in Science (department wide discussion group)).
- * Grad students receive health insurance and a tuition waiver.
- * Guaranteed support for students meeting program expectations (for 5 yrs PhD, 2 yrs Masters).
- * 64% of students supported by TAing, 36% by fellowships, research, or training grants.
- * One in twelve students has received NSF Graduate Research Fellowship funding.
- * Last year students received over \$421K in external funds (in addition to internal research funds).
- * Extensive outreach and service opportunities: students serve on the boards of the Nature Conservancy and American Cichlid Society, do invasive species removal, run taxonomic forays with the broader public, help organize Darwin Day Tennessee, mentor undergraduate and high school researchers, and much more.
- * Nearby locations for research: Great Smoky Mountains N.P. (home to 17,000 documented species, including 1500 angiosperm, 200 bird, 66 mammal, and 67 fish species); numerous cave systems; campus greenhouses; experimental plots; and much more.
- * Affordable cost of living. Living wage (for one adult) in Knoxville, TN \$21,216, Cambridge, MA = \$27,664, San Francisco area = \$28,496 (source: livingwage.mit.edu). Stipends for PhD students start at \$22,000 (\$19,700 for Masters students), but are often higher.
- * Vibrant community: 86 miles of greenways and trails in Knoxville, many festivals and parades, museums, live music, and more.
- * Active departmental graduate student organization (GREBE) to represent and help graduate students.
- * Potential students should contact advisors before applying: we only accept students into a lab (no rotations). For more information, go to <http://eeb.bio.utk.edu/-graduate-studies/application-information/> . Application deadline Jan. 1, 2016.

==Faculty seeking students and sample questions:

The list below is not exhaustive ÅV indeed, far from it. There are other faculty members who will be recruiting students in the Department. Also, the listed faculty members may recruit students who have different interests to those listed. But we prepared this list just to illustrate to prospective students some of the diversity of topics on which we envision recruiting, spanning conservation, macroevolution, global change ecology, molecular genetics, biology education and systematics, among many other topics.

Paul Armsworth (<http://web.utk.edu/~parmswor>)

How can large-scale efforts to conserve biodiversity or ecosystem services, which are led by governments or international nonprofits, most effectively complement bottom-up conservation efforts led by local communities?

Conservation organizations often have a hierarchical management structure ÅV how effectively do hierarchies allocate resources to support conservation of biodiversity and ecosystem services?

Joe Bailey (<http://web.utk.edu/~jbaile29/Default.html>)

How will species range dynamics drive genetic divergence? How do feedbacks reinforce patterns of genetic divergence on the landscape?

Does contemporary evolution along the gradients of global change alter ecosystem function?

Ben Fitzpatrick (<http://web.utk.edu/~bfitzpa1>)

What is the coevolutionary relationship between turtles and Salmonella?

— / —

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>

**UToronto Mississauga
NeuronalEvolution**

The Senatore lab in the Department of Biology at University of Toronto Mississauga (<http://senatorelab.com/>)

is currently recruiting 3 PhD and/or MSc students to conduct research aimed at understanding diversity and evolution of synaptic transmission. The anticipated start date is May or September 2016.

In the lab, we compare what's known about synaptic physiology and structure in mammalian and invertebrate model organisms, with two of the most early-diverging animals: 1) Placozoan *Trichoplax adhaerens*, a simple marine organism that exhibits motile behaviors including feeding, chemotaxis and phototaxis, yet lacks neurons, muscle and synapses; and 2) the comb jelly *Mnemiopsis leidyi*, from the most early-diverging animal phylum Ctenophora, which appears to have independently-evolved synapses.

We focus on i) voltage-gated calcium (Cav) channels, which in humans and invertebrates play crucial roles in synaptic transmission, and on ii) synaptic protein complexing mediated by scaffolding proteins, which play dynamic roles in synapse formation and homeostasis. We are initiating comparative structure-function and physiology studies of Cav channels, comparing human and other invertebrate channels with highly divergent orthologues/homologues from *Trichoplax* and *Mnemiopsis*. Here, objectives are to gain evolutionary insights into the biophysical and pharmacological features of each Cav channel type, and to determine whether the roles that Cav channels play in *Trichoplax* and *Mnemiopsis* resemble known synaptic functions of Cav channels in other well-studied organisms. We are also applying high-throughput proteomics to evaluate if key protein-protein interactions that underlie synaptic scaffolding, including the association of Cav channels with pre-synaptic exocytotic machinery, are absent/present in *Trichoplax*, in accordance with its lack of synapses, and to define the molecular architecture of the independently-evolved and poorly understood *Mnemiopsis* synapse. Students wishing to join the lab should email their CV and the names and contact information of 2 academic references to adriano.senatore@utoronto.ca.

Adriano Senatore Assistant Professor University of Toronto Mississauga William G. Davis Building Room 3033 3359 Mississauga Road Mississauga, ON L5L 1C6 Canada Email: adriano.senatore@utoronto.ca Office phone: 905-569-4322

Adriano Senatore <adriano.senatore@utoronto.ca>

UWindsor MicrobialGenomics

Funded Ph.D. position using advanced genomic and transcriptomic applications for microbial contamination risk assessment

We are looking for a motivated Ph.D. student to develop a direct, rapid and cost-effective method of testing recreational water quality (microbial community) using cutting-edge genomic and transcriptomic methods. These methods will include NextGen sequencing (NGS), qRT-pCR, gene expression and the development of a nano-fluidic qRT-PCR chip. The project also incorporates a microbial ecology component to examine species interactions under different environmental conditions. If successful, this protocol could be adopted world-wide and contribute to the health and safety of beach goers and greater awareness of the ecological dangers our beach areas are facing.

The student will be advised by Dr. Daniel Heath at GLIER and will take advantage of GLIER's well-funded Environmental Genomics Facility (EGF). As part of the larger recreational water quality project, the successful candidate will collaborate with government regulators, other scientists and industry partners. The opportunity to conduct research directly relevant to the growing subsector of water quality, use cutting edge genomics technologies and establish a professional network in government, academia and industry will position the researcher for a successful and competitive launch into the workplace or academia upon graduation.

The successful candidate will start immediately. While the position comes with a stipend, please note there is no extra funding for international student fees. Please send your CV and summary of research interests along with contact information for two references to Dr. Daniel Heath (dheath@uwindsor.ca) as soon as possible.

saraj@uwindsor.ca

UWisconsin-Milwaukee ZooGenomicsPedigrees

Position announcement: PhD position in genomics of captive populations in the lab of Dr. Emily Latch, Department of Biological Sciences, University of Wisconsin-Milwaukee.

The Latch Lab is seeking a highly motivated and enthusiastic graduate student to join the Ecology and Evolutionary Biology program in the Department of Biological Sciences at the University of Wisconsin-Milwaukee. The student would participate in a project focused on integrating molecular data into the genetic management of wildlife breeding programs. Specific aspects of the research will include generating and analyzing genomic (SNP) datasets for captive breeding programs, to be used to develop custom genomic and pedigree-based software tools that can be used by non-experts managing wildlife breeding programs. This project has wide-reaching applications to in situ and ex situ conservation programs. The student will also assist with organizing and participating in training workshops for non-experts, and disseminating research through presentations and publications. This project is a collaboration with the San Diego Zoo.

Qualified candidates should have completed a B. S. in Biological Sciences or a related discipline, and be broadly interested in the conservation and management of vertebrate populations. Qualified applicants will have a strong background in genetic/genomic analysis, bioinformatics, and/or computer modeling. Proficiency in computer modeling skills and one or more scripting languages is preferred. The applicant should have the ability to collaborate well and communicate scientific materials to non-scientists. Funding in the form of assistantships, research support, and travel grants are available for qualified candidates.

Research in the Latch 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 inform conservation and management programs. For more information about the Latch Lab, visit: <http://www.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>. The Department

has an active research group in Behavioral and Molecular Ecology <http://www.preferencefunctions.org/-behavioral-molecular-ecology.html>. If you are interested, please send me an email including a statement of research interests and a CV (including GPA and GRE scores). I will start reviewing applications immediately, and will continue reviewing applications until the position is filled. Qualified candidates will also have to apply to the UWM Graduate School (deadline Jan 1, 2016). Anticipated start date is June or August 2016.

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

Email: latch@uwm.edu Tel: 414-229-4245 Web: <http://www.uwm.edu/~latch> "latch@uwm.edu" <latch@uwm.edu>

Vienna PopulationGenetics

PhD positions in Population Genetics

Over the past years, Vienna has developed into one of the leading centres of population genetics. The Vienna Graduate School of Population Genetics has been founded to provide a training opportunity for PhD students to build on this excellent on site expertise.

We invite applications from highly motivated and outstanding students with a background in one of the following disciplines: bioinformatics, statistics, evolutionary genetics, functional genetics, theoretical and experimental population genetics. Students from related disciplines, such as physics or mathematics are also welcome to apply.

Topics include:

- §Population trees and polymorphism-aware phylogenetic models
- §Inferring evolutionary trajectories from time series data
- §Wolbachia infection dynamics in evolving *Drosophila* populations
- §Functional characterization of beneficial alleles in *Drosophila*
- §Modified evolve and re-sequence design
- §Convergent and adaptive evolution during ecotype formation
- §Population history and adaptation in natural *Arabidop-*

sis populations

Only complete applications (application form, CV, motivation letter, university certificates, indication of the two preferred topics in a single pdf) received by January 17, 2016 will be considered. Two letters of recommendation need to be sent directly by the referees.

Monthly salary of a successful candidate will be according to the regulations of the Austrian Science Fund FWF. All information about the about available topics, the training program and the application procedure can be found at www.popgen-vienna.at – Dr. Julia Hosp Vienna Graduate School of Population Genetics Coordinator www.popgen-vienna.at <https://twitter.com/PopGenViennaPhD> c/o Institut für Populationsgenetik Vetmeduni Vienna Veterinärplatz 1 A-1210 Vienna <http://www.vetmeduni.ac.at/en/population-genetics/> Tel: +43 1 25077 4338 Fax: +43 1 25077 4390

julia.hosp@gmail.com

Virginia Commonwealth U 2 Prothonotary Warblers

Drs. Lesley Bulluck and Rodney Dyer in the Department of Biology and the Center for Environmental Studies at Virginia Commonwealth University are seeking applications for two graduate student positions to work with Prothonotary Warblers beginning April 2016.

One position is for a graduate research assistant who will focus on migratory connectivity using population genetics (co-advised by Drs. Dyer and Bulluck). This position is a research assistantship with two years of stipend and tuition in the Masters program at the Center for Environmental Studies (<http://ces.vcu.edu>). Successful applicants should have experience in molecular techniques salient to creating ddRADseq libraries and ornithological field collection techniques. This individual will be working on exploring the extent to which individuals sampled on wintering grounds can be assigned to specific breeding areas in North America as well as assisting ongoing field studies in this species in Virginia.

The second position is a field crew leader/potential graduate student to lead field work that addresses questions about breeding density and habitat use (advised by Dr. Bulluck). This position does not have funding for student support outside of the field season, however competitive teaching assistantships including tuition and a

monthly stipend may be available in the VCU Biology MS program (<http://biology.vcu.edu>) for very strong applicants. The field crew leader will be responsible for organizing and leading the field effort from April through July along with the field technician and occasional undergraduate technicians from VCU. Strongest applicants will have a competitive GPA and GRE scores and an interest in developing quantitative skills to answer questions about Prothonotary Warbler breeding ecology.

Both positions will involve field work collecting demographic data on this species during the spring/summer of 2016 and 2017. Field work will take place at Fort A.P. Hill and surrounding areas, approximately midway between Richmond and Washington D.C. A \$1200-1500/month stipend (depending on experience) and local housing and transportation will be provided during the field season for both positions. Both positions require prior experience in the field, navigational skills, ability to identify eastern birds by sight and sound, and tolerance for wet, hot, buggy coastal plain conditions in the summer. Especially desirable skills include prior experience mist netting/banding of birds, collecting blood and feather samples, and making detailed field observations using binoculars (including resighting color bands).

VCU, located in Richmond, VA, is the largest public R1 University in Virginia and has an active and diverse Ecology, Evolution, and Environmental Science faculty that are engaged in research around the world. Successful applicants should have a BS in biology (or related field), GPA >3.3, competitive GRE scores, an interest in developing quantitative skills, a high level of self-motivation, and prior research experience.

Interested persons should initially email a letter that summarizes their background, educational goals, and research interests, along with curriculum vitae (include GPA and GRE scores) with contact information for three references to Dr. Lesley Bulluck (lpbulluck@vcu.edu) or Rodney Dyer (rjdye@vcu.edu). Deadline for applications is December 15, but applications will be considered as they are received.

– Rodney J. Dyer, PhD Department of Biology Center for Environmental Studies Virginia Commonwealth University <http://dyerlab.bio.vcu.edu> rjdye@vcu.edu

“joelmcg@vt.edu” <joelmcg@vt.edu>

VirginiaTech MolecularEvolution

The McGlothlin lab at Virginia Tech is looking for an enthusiastic and motivated Ph.D. student, starting fall 2016, to work on an NSF-funded project on the evolution of voltage-gated sodium channels. This project examines the molecular evolution of the Nav family in birds and reptiles in an attempt to understand the origin of predators that consume toxic prey. The student will be encouraged to develop an independent dissertation project that may build on or depart from the funded work.

The McGlothlin lab is part of the growing Ecology, Evolution, and Behavior and Integrative Organismal Biology groups in Virginia Tech’s Department of Biological Sciences. Interested students should contact Dr. Joel McGlothlin (joelmcg@vt.edu), providing a description of your research interests and experience and a CV or resume that includes GPA, GRE scores, and contact information for 3 references. For full consideration, applications to the department should be received by December 31, 2015.

Additional information: Project overview: http://www.nsf.gov/awardsearch/showAward?AWD_ID=1457463 McGlothlin lab: <http://www.faculty.biol.vt.edu/mcglathlin> Graduate program: <http://www.biol.vt.edu/graduates/index.html> Grad app: http://www.biology.vt.edu/graduates/how_to_apply/grad_application_information.html Biological Sciences at VT: <http://www.biol.vt.edu/research/index.html> Ecology, Evolution, and Behavior at VT: <http://www.biol.vt.edu/research/index.html>

Joel W. McGlothlin Virginia Tech, Dept. of Biological Sciences 2125 Derring Hall, 1405 Perry St. Blacksburg, VA 24061 <http://www.faculty.biol.vt.edu/mcglathlin>
Email: joelmcg@vt.edu

WilliamandMary PlantEvolutionaryGenomics

Graduate position: Plant Evolutionary Genomics
The Puzey lab at the College of William and Mary is recruiting graduate students (M.S) interested exploring the evolutionary and genomic consequences of whole genome duplication in plants (<http://puzeylab.weebly.com>). Positions for MS program start Fall 2016. Please contact Josh Puzey (jrpuzey@wm.edu<mailto:jrpuzey@wm.edu>) for more information.

The successful applicant will be passionate about evolution, interested in plants, and keen to use genomic techniques to address their research questions. Previous experience with a computer language and comfort with quantitative analyses is preferred. Students working the Puzey lab get exposure to a wide range of analyses and techniques including next-generation sequencing (DNA, RNA, smRNA), population genomic analyses, and molecular ecology.

Details about the M.S. program in Biology at W&M can be found here (<http://www.wm.edu/as/biology/graduate/>). Full-time students are supported by teaching assistantships and full tuition waivers. Most students complete their master’s degree in two years and go on to pursue either a Ph.D. or M.D. degree. Our program also provides the training required to enter technical positions in industry and government. Recent grads are pursuing Ph.D.s at Duke, UC Davis, Johns Hopkins, and University of Toronto; others are following career paths in biotech, pharmaceuticals, resource management, and environmental consulting.

“jrpuzey@wm.edu” <jrpuzey@wm.edu>

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ArizonaStateU 2 Microbiome

Multiple Faculty Positions on Microbiomes at Arizona State University (JOB # 11403)

https://sols.asu.edu/sites/default/files/resources/-employment/SOLS.MicrobiomicsAd_new.pdf The School of Life Sciences (SOLS) at Arizona State University (ASU) invites applications for up to two tenure-eligible faculty positions in the area of microbiome research. Rank and tenure status will be commensurate with experience. Anticipated start date is August 2016.

We seek to establish a strong group of scientists focused on understanding the functional and structural basis of complex systems of microbes, and their relevance for human, animal and plant biology, the environment, and man-made systems. We envision these individuals

working to advance the discipline by developing and using novel technologies to provide an integrated systems understanding of microbiomes, so as to establish general functional principles that are not only explanatory, but also predictive of the behavior of communities of microorganisms.

Successful candidates will be expected to develop or maintain an innovative, independent, extramurally funded research program, provide excellent classroom instruction as assigned, contribute to curriculum development, mentor students and postdoctoral fellows and interact with a very multidisciplinary group of faculty in the Life Sciences at ASU. Competitive start-up packages will be provided. All candidates must have a doctoral degree by the time of appointment in microbiology or a related field, a proven track record of novel research in microbiome biology, and relevant post-doctoral experience. Desired qualifications include a record of publication in refereed journals, demonstrated excellence in teaching and/or mentoring, and experience working in a multi-disciplinary environment. Candidates for Associate or Full Professor rank must have a

demonstrated record of significant extramural funding. To apply, please send a cover letter that identifies the rank for which you seek consideration. Additional application materials include: curriculum vitae, three representative publications, statement of research vision and plans, teaching statement, and contact information (name, email, and phone number) for three references. References will only be contacted for finalists at a later stage of the search.

Application materials should be addressed to Rajeev Misra, Search Committee Chair, and sent electronically as pdf files to solsfacultysearch1@asu.edu. Only electronic applications will be considered. The initial closing date for receipt of applications is December 31, 2015; if not filled, review will continue every week thereafter until the search is closed. A background check is required for employment.

Arizona State University is a VEVRAA Federal Contractor and an Equal Opportunity/Affirmative Action Employer. All qualified applicants will be considered without regard to race, color, sex, religion, national origin, disability, protected veteran status, or any other basis protected by law. <https://www.asu.edu/aad/manuals/acd/acd401.html> <https://www.asu.edu/titleIX/> “ggile@asu.edu” <ggile@asu.edu>

BostonU MarineGenomics 2

The Boston University Marine Program and Department of Biology recently advertised the availability of a tenure-track faculty position in marine genomics. As the first of an expected series of new faculty positions in Marine Science, we are now expanding the scope of this search to include investigators working in all aspects of marine ecology and evolutionary biology. We have revised the job advertisement accordingly and have extended the deadline for applications until 1 December 2015.

For more information and to apply, please visit AcademicJobsOnline at the following link: <https://academicjobsonline.org/ajo/jobs/6263> Boston University, Marine Ecology

As part of a major initiative in Marine Biology, the Boston University Marine Program and Biology Department invite applications for a tenure-track Assistant Professor position, starting July 1, 2016. Areas of interest include marine genomics, quantitative ecology and

organismal responses to global change. Investigators engaged in integrative research on any marine organisms at any level of biological organization are encouraged to apply.

Applicants must have a PhD in a relevant field, post-doctoral experience, and a strong publication record. Responsibilities include establishing a research program with extramural funding, and teaching at both the graduate and undergraduate levels. Teaching would include a research-based course in the Marine Semester, as well as a lecture course in the Biology Department curriculum. In addition to being an active participant in the Marine Program, the successful candidate will join a strong and growing marine ecology research community at Boston University. The successful candidate will be offered newly renovated laboratory facilities as well as a competitive salary and start-up package.

Review of applications will begin December 1, 2015. Please use AcademicJobsOnline (<https://academicjobsonline.org/ajo/jobs/6263>) to submit a cover letter, curriculum vitae, statements of research and teaching interests, and three representative reprints, and arrange for three letters of reference to be submitted through the same website. Inquiries can be addressed to John R. Finnerty (jrf3@bu.edu), Chair, Marine Ecology Search Committee. Please visit the following websites for additional information about the Marine Program (<http://www.bu.edu/bump>) and the Biology Department (<http://www.bu.edu/biology/>).

We are an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law. We are a VEVRAA Federal Contractor.

Anya Burzynski Assistant to the Chair Department of Biology Boston University

“Burzynski, Anya Carina” <aburzyns@bu.edu>

ColumbiaU EvolutionaryGenomics

ASSISTANT PROFESSOR IN EVOLUTIONARY GENOMICS

The Department of Ecology, Evolution and Environmental Biology (E3B) at Columbia University invites applications for a tenure-track position at the Assistant Professor level to begin July 1, 2016. Preference will be

given to candidates who develop or apply state-of-the-art genomic tools to study evolutionary processes in the lab or field. Relevant research areas include, among others, evolutionary, functional, behavioral, population, or comparative genomics, as well as computational biology and bioinformatics.

Candidates must have a Ph.D. or equivalent in a relevant discipline, and a record of outstanding scholarship that demonstrates originality in addressing significant questions in ecology or evolutionary biology. E3B is part of an extensive network of some of the world's foremost research institutions in the biological, physical and social sciences (<http://www.e3bcolumbia.com>). E3B also has strong links within Columbia to other Departments and to the Mind, Brain, Behavior Initiative, the Center for Integrative Animal Behavior, and the Earth Institute, as well as ties outside of the University to the New York Genome Center, the American Museum of Natural History, and the New York Botanical Garden, among others. The successful candidate will be expected to establish a vigorous, externally funded research program that complements and augments existing strengths within E3B and related institutions, and to participate in undergraduate and graduate teaching.

All applications must be submitted online and must include a cover letter, a CV, a two-page research statement describing significant accomplishments and a vision for the future of the field and the applicant's role in it, a one-page teaching statement, contact information for three reference letter writers, and three PDFs of reprints/pre-prints. For more information and to apply, please go to:

<http://academicjobs.columbia.edu/applicants/-Central?quickFind=3D61743> Review of applications will begin December 1, 2015, and will continue until the position is filled.

Columbia University is an Equal Opportunity/Affirmative Action employer.

Dustin Rubenstein <dr2497@columbia.edu>

DuquesneU Pittsburgh MicrobeEvolution

Duquesne University, Pittsburgh, PA, invites applications for a tenure-track position at the Assistant Professor level in the Department of Biological Sciences. Duquesne is committed to the teacher-scholar model,

where excellence is expected in both education and research. The successful applicant will develop a vigorous, externally-funded, independent research program in the broad area of bacterial, archaeal, or eukaryotic microbiology. Potential areas of study involving microbes include cell biology, development, evolution, virology, pathogenesis, genomics, and immunology. The ability to teach introductory courses and contribute to advanced courses within their area of expertise is required.

Applicants must have post-doctoral experience and are expected to mentor undergraduates and PhD students. Competitive salary and start-up packages are available. Additional information about the Department can be found at <http://www.duq.edu/biology>. Duquesne University is committed to attracting, retaining and developing a diverse faculty that reflects contemporary society, serves our academic mission and enriches our campus community. As a charter member of the Ohio, Western PA and West Virginia Higher Education Recruitment Consortium (HERC), we encourage applications from members of underrepresented groups and support dual-career couples. Motivated by its Catholic and Spiritan identity, Duquesne values equality of opportunity both as an educational institution and as an employer. Founded in 1878 by its sponsoring religious community, the Congregation of the Holy Spirit, Duquesne University is Catholic in mission and ecumenical in spirit.

Duquesne University uses Interfolio to collect all faculty job applications electronically. Please send a letter of application, curriculum vitae, a joint statement covering both research and teaching goals, and the names, addresses, email addresses, and telephone numbers of three references to the attention of Dr. Nancy Trun, Chair, Microbiology Search Committee: apply.interfolio.com/32474 by November 15, 2015.

"seamanm@duq.edu" <seamanm@duq.edu>

Editor Nature Ecol

Nature is seeking to recruit an ecology editor. Applications also welcomed from evolutionary biologists. Application deadline November 29th 2015. Full details here: <http://www.nature.com/naturejobs/science/jobs/558473-ecology-editor>

"Goymer, Patrick" <P.Goymer@nature.com> "Goymer, Patrick" <P.Goymer@nature.com>

Editor Nature EcolEvol

Springer Nature is seeking to recruit associate and senior editors to join Nature Ecology and Evolution, launching January 2017. Application deadline November 30th 2015. Full details here: <http://www.nature.com/naturejobs/science/jobs/558469-associate-or-senior-editor> P.Goymer@nature.com

HarvardU HumanEvolutionaryBiol

“The Department of Human Evolutionary Biology seeks to appoint a tenured professor in the field of human evolutionary biology. We are interested in candidates who address any aspect of humans from an evolutionary perspective, and who complement and add to the strengths of the department and other affiliated departments at Harvard including Anthropology, Organismic and Evolutionary Biology and Psychology, as well as the Broad Institute of Harvard and MIT.

The appointment could begin as early as July 1, 2016.

The professor will teach and advise at the undergraduate and graduate levels.

Candidates are required to have a doctorate.

Demonstrated excellence in teaching and research is desired. Candidates should also evince intellectual leadership and impact on the field and potential for significant contributions to the department, University, and wider scholarly community.

Please submit your materials through the ARIeS portal at <http://academicpositions.harvard.edu/postings/6565>. Candidates are encouraged to apply by December 1, 2015; applications will be reviewed until the position is filled.

Letters of nomination from third parties are welcome. Names of references are not required.

Harvard is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic

protected by law.

Please address inquiries to Professor Joseph Henrich, Search Committee Chair, Department of Human Evolutionary Biology, Faculty of Arts and Sciences, Harvard University at henrich@fas.harvard.edu.”

Lenia Constantinou Staff Assistant Dept. of Human Evolutionary Biology Harvard University 11 Divinity Avenue Cambridge, MA 02138 Ph: (617) 496-1193 F: (617) 496-8041

“Constantinou, Lenia” <constantinou@fas.harvard.edu>

InBIO Portugal EnvironmentalMetagenomics

ERA Chair in Environmental Metagenomics: InBIO - Research Network in Biodiversity and Evolutionary Biology, Portugal

Applications are open between November 28 to December 31, 2015

Applications are open for a Chair in Environmental Metagenomics to be hosted by CIBIO-InBIO - Research Network in Biodiversity and Evolutionary Biology, University of Porto (Portugal). The Chair position will be contracted in the scope of the project EnvMetaGen - Capacity Building at InBIO for Research and Innovation Using Environmental Metagenomics (Reference NÁÂ 668981), funded by the European Commission under the call H2020-WIDESPREAD-2014-2, and with an overall budget of 2.48M (September 2015 - August 2020). The project aims to expand the research and innovation potential of InBIO, supporting emerging research lines in environmental metagenomics for applications in biodiversity surveys, invasive species control, ecosystem services assessment, and environmental (bio)monitoring. The ERA Chair holder will have a leading role in the development of the project, and he/she will be given responsibilities to select the research and support staff of the ERA Chair team, setting the strategic course and coordinating the scientific, networking and capacity building actions of the project.

CIBIO-InBIO is a young and highly dynamic research centre located near Porto, in Northern Portugal, which conducts world-class research in the fields of biodiversity and evolution. It is an inclusive, equal opportunity employer offering attractive conditions and benefits. The Centre offers great opportunities for multidisciplinary research and hosts 20 research groups, which include

over 160 PhD level researchers, and over 100 MSc and PhD students, from across the world. The Centre has state of the art ecology and molecular laboratories and conducts research projects at a global scale. The working language of the institute is English, and it offers a vibrant, multicultural and enthusiastic working atmosphere. In addition, the Northern region of Portugal provides rich cultural and outdoor activities and Porto is a UNESCO world-heritage city and the capital of Port wine.

Requirements

- Internationally Leading or Established Researcher in environmental metagenomics or closely related fields of research - preference will be given to senior researchers (with > 10 years of post-doctoral research experience); less experienced candidates may also be considered in light of their contributions to the research field;
- Proven experience in: managing research teams; supervising graduate students; and in operating with key international funding agencies allowing securing research funding.
- With an established international and cross-disciplinary collaborative network;
- Preference will be given to applicants with experience in the use of metagenomic approaches to address research questions in one or more of the following areas: (i) Biodiversity surveys and assessment; (ii) Environmental biomonitoring; and (iii) Assembling and analysing food webs.

Benefits

- Exceptional research and technical conditions will be offered to the appointed Chair, including:
- Initial appointment for 4.5 years;
- Internationally competitive salary commensurate with qualifications and experience;
- Funding to establish a team of researchers and technical support staff;
- Substantial travel budget for training, conference attendance and networking;
- Access to fully equipped genetics and genomic labs, at the CIBIO-InBIO facilities.

Application

Applicants should submit:

- Detailed Curriculum Vitae;
- The three most important research papers;
- A brief (2-pages) statement of research interests.

Applications should be submitted by mail to cibio.up@cibio.up.pt, in the period between November 28 to December 31, 2015.

The EnvMetaGen project is available upon request to the same mail address.

Evaluation

Candidates will be evaluated by an international selection panel. Short-listed candidates will be invited for an interview.

Employer

ICETA - Instituto de Ci ncias, Tecnologias e Agroambiente da Universidade do Porto (ICETA-UP), on behalf of CIBIO-InBIO.

Websites InBIO

CIBIO

Location CIBIO-InBIO, Campus Agr rio de Vair o, Rua Padre Armando Quintas, 4485-661 Vair o, Portugal (Coordinates: N41.328940, W8.672635).

CIBIO-InBIO Divulga o

JohnInnesCentre ModellingPlantEvoDevo

Human Frontiers Postdoctoral Position @ Maree Lab: Eco-Evo-Devo Multi-level Modelling of “Zombie Plants”

Traditionally biologists study organisms at separate levels, with few studies linking mechanistic aspects of gene function to the ecological niche of the organism and the environment. In contrast, in this project we aim to make causal connections between the gene function within an organism and the impact of this gene function on the pathogen distributions within whole countries.

Aster yellows phytoplasmas represent parasites that excel at controlling their plant hosts, dramatically modifying their development, for example by forcing the plant to form leaves instead of flowers. Such modifications in the development not only affect the plant-parasite interaction, but also the interactions between the plant insect vector, for example by increasing plant attractiveness to the insects. Therefore, the plants developmentally become “zombie”, they cease to reproduce and allow for the quicker spread of the disease.

Unravelling these complex interactions requires an eco-

evo-devo approach, in which the postdoc will develop a multi-level model to zoom out from the molecular up to the ecological level, to unravel the mechanisms by which gene expression impacts development, changes pathogen, vector and host interactions, and modifies spread of the disease over a whole country. By combining input from molecular biology, developmental biology, and ecology, a predictive model will be developed that links all these levels.

The full information and possibility to apply can be found here: <https://www.jic.ac.uk/training-careers/-vacancies/2015/11/postdoctoral-scientist-1002886/> Please contact Stan Maree (stan.maree@jic.ac.uk) for further information.

“Stan Maree (JIC)” <Stan.Maree@jic.ac.uk>

NHM Los Angeles 2 LaBreaCurators

Curators, Rancho La Brea The Natural History Museum of Los Angeles County (NHM) seeks two Curators to lead the research programs and steer the public engagement of its renowned Late Pleistocene Rancho La Brea collections housed at the La Brea Tar Pits & Museum. The successful candidates will conduct collection-based research in evolutionary biology and paleoecology including systematics, biogeography, climate change, and biodiversity science. The NHM, the largest natural history museum in the western United States, has recently finished a dramatic transformation including new ground-breaking exhibitions and a 3 1/2 acre wildlife garden. It anticipates completing a similar transformation at the La Brea Tar Pits & Museum during the next decade. The NHM’s mission is to inspire wonder, discovery, and responsibility for our natural and cultural worlds. Our strategic intent “To be the best at communicating how our planet and life on it changes over time and why this matters” guides our priorities over the next decade. The successful candidates will have a record of outstanding research as well as excellent communication skills, a talent for collaboration across disciplines, and an innate ability to engage and enthuse the public and stakeholders through their work.

The La Brea Tar Pits & Museum constitutes one of the world’s richest Ice Age fossil sites and has yielded an estimated 5 million specimens representing more than 600 species of animals and plants of Late Pleistocene age. These collections afford a huge potential for a broad array of research and public programs and are continuously

growing through ongoing excavations. The successful candidates will be responsible for developing a dynamic, productive, and scientifically significant program of research to build a growing scientific and public profile, overseeing the development and curation of important collections, maintaining and strengthening the NHM’s presence in key professional and governmental networks, and establishing active internal NHM collaborations, especially with the Education and Exhibits, Marketing and Communications, and Advancement Departments.

The successful candidates will have a Ph.D., a strong track record of published research, and experience in generating funding. Experience in collections management would be an advantage, as would an interest in creative ways of engaging the public in research (e.g., citizen science). The Curators will be expected to develop an active and publically engaging research program, develop working relationships with local universities, professional associations, mentor students and postdoctoral fellows, and maintain research through obtaining competitive grants and/or funding from other external sources. They will manage the collection’s growth and undertake research in ways that increase both its scientific and public appeal. The Curators must have the vision and capability to build a research program that can be integrated within the NHM’s ongoing efforts to document and interpret biotic responses to environmental change.

The ability to communicate effectively and engage with a wide variety of audiences, including the public and the NHM’s various stakeholders is paramount. The successful candidates will be expected to help oversee staff and supervise the NHM’s Rancho La Brea program including the collections and excavations. They will actively participate in a broad range of museum activities, such as exhibits, education, outreach, training of educators, public communications, and fundraising. More specifically, the successful candidates will be expected to play a key role in the ongoing transformation of the La Brea Tar Pits & Museum, developing a future vision for this unique fossil site.

This is a full-time position with a salary and title commensurate with experience, plus excellent benefits (<http://www.nhm.org/site/about-our-museums/-working-at-nhm/employee-benefits>).

Application deadline is December 15th, 2015. The starting date is July 1st, 2016. Applicants should send a cover letter, curriculum vitae, salary history, and the full contact information of at least three professional references to thayden@nhm.org, La Brea Tar Pits & Museum Curatorial Search, Research & Collections, Natural History Museum of Los Angeles County, 900 Exposition

Blvd., Los Angeles, CA 90007, USA.

The Natural History Museum of Los Angeles County is an Equal Opportunity Employer. Please, No Phone Calls, No Fax.

nsmith@nhm.org

upload a CV and supporting statement.

Vacancy ID : 121132 Contact Phone : 01865 271278
Closing Date : 21-Dec-2015 Contact Email : personnel@zoo.ox.ac.uk Full details: <http://bit.ly/1MxkwOe>
oliver.pybus@zoo.ox.ac.uk

OxfordU EvolutionInfectiousDisease

Postdoctoral Researcher in Evolutionary and Computational Analysis of Infectious Disease

Full details here: <http://bit.ly/1MxkwOe> Department of Zoology, South Parks Road, Oxford Grade 7: £30,434 - £37,394 with a discretionary range to £40,847 p.a.

The Department of Zoology, seek an ambitious Postdoctoral Researcher with strong quantitative skills to undertake research at the interface of evolutionary biology, infectious disease, computational statistics, and genomics. The position is available immediately for a fixed-term of 3 years (36 months). The candidate will join a productive and award-winning research group under the supervision of Professor Oliver Pybus (@EvolveDotZoo). Funding is available to support training, collaborative visits and conference attendance.

Main responsibilities: - Undertake innovative research in the fields of virus evolution, epidemiology, statistical inference, genomics, population genetics, phylogenetics, quantitative immunology, or mathematical modelling; - Create and apply computational and statistical methods. Develop, maintain and distribute completed software; - Contribute and develop ideas for new research projects; - Participate in and lead the publication of research findings in international peer-reviewed journals and other publications.

The successful candidate will hold a doctoral degree in a relevant field of biology; or a doctoral degree in another science (e.g. computer science, statistics, mathematics, physics, chemistry) with a strong link to the research described and have strong analytical and quantitative skills, including a good working knowledge of probability theory/statistics. They must be competent in scientific computing using at least one programming language (C, C++, JAVA, preferred) and demonstrate the ability to undertake high quality scientific research.

Only applications made online before 12.00 midday on Monday 21 December 2015 will be considered. Please

Philadelphia LabTech Biodiversity

BIODIVERSITY LABORATORY SPECIALIST (PHILADELPHIA)

The Center for Biodiversity at Temple University (Philadelphia) is interested in hiring a Biodiversity Laboratory Specialist. The successful applicant will be responsible for organizing and carrying out research in biodiversity, specifically to maintain a molecular biology laboratory including a frozen tissue collection, collect and analyze DNA sequence data from a diversity of vertebrate species (mostly amphibians and reptiles), and to assist the center and work with students and other users of the laboratory. The successful candidate will also work with whole organisms, the databasing of collections, and organization of project data. A bachelor's or master's degree is preferred.

The Center for Biodiversity is located in the new Science, Education, and Research Center (SERC building) on Temple's main campus (www.biodiversitycenter.org). Interested persons should send an e-mail to the director (S. Blair Hedges, www.hedgeslab.org) at temple.biodiversity@gmail.com, stating their interest in this position, and attach a curriculum vitae that also contains contact information for three references. Review of applications will begin on November 16 and continue until the position is filled. Temple University is located in the heart of historic Philadelphia and is the sixth largest provider of graduate school education in the USA. Situated in close proximity to New York City and Washington DC, Philadelphia is the birthplace of America and home to many academic and research institutions as well as numerous cultural attractions.Â sbh@temple.edu

QueensU Belfast 2yr MarineInvertebrateHistology

Research Assistant

Enhancing the sustainability and market share of crustacean fisheries through advances in determination of age/size relationships

Apply online: <http://www.qub.ac.uk/sites/-QUBJobVacancies/ResearchJobs/> Job reference 15/104266 Salary £26,537 per annum 2-year contract Closing date 4 December 2015 Interviews 18 December 2015 This job is based in the Queen's University Marine Laboratory, Portaferry, Northern Ireland

The idea: Fisheries stock assessments and the setting of minimum landing sizes (MLS) critically depend on robust age and size determinations, and understanding the relationships of age/size with key life history parameters such as maturity and fecundity. A fundamental problem with crustacean fisheries management is that carapace moulting destroys our ability to age individuals, leaving size as an unreliable estimator of age. Crustacean fisheries may be under- or over-exploited until this problem is resolved. Here, we propose to test and further develop a recently published technique to measure crustacean age, involving detection and measurement of internal eyestalk growth bands. This will be achieved with our microtome/microscopy/digital imaging facility, that will allow sectioning and digital imagery of eyestalks from samples of various crustacean species across locations/habitats. Accurate age/size relationships can thus be resolved and the data fed into stock management and fishery practice and policy. The project will be a collaboration with the fishery sector, through Whitby Seafoods, SeaFish the industry authority, and the Queen's University Belfast Marine Laboratory

Any questions, contact: Dr Julia D Sigwart Senior Lecturer & Associate Director Queen's University Belfast, Marine Laboratory Portaferry, Northern Ireland e. j.sigwart@qub.ac.uk

www.qub.ac.uk/qml Find us on Facebook: www.facebook.com/queensmarinelab "j.sigwart@qub.ac.uk"

RutgersU Newark EvolutionaryBiol

Tenure-Track Position Federated Department of Biological Sciences,

Ecology and Evolution Section Rutgers University-Newark

The Federated Department of Biological Sciences at Rutgers University-Newark seeks to hire an evolutionary biologist to fill a tenure-track vacancy in the Ecology and Evolution section of the Department effective September 2016 at the assistant professor level. Applications at the associate and full professor levels will also be considered. We seek applications from researchers who use innovative approaches to address fundamental evolutionary questions firmly grounded in organismal biology. We especially encourage applications from individuals working in one or more of the following areas: systematics, population and evolutionary genomics, species interactions, functional and behavioral biology, population biology, biodiversity, and diversification (speciation rate). This position builds on strengths in areas of organismal biology, ecology, evolution, systematics, and conservation biology. Rutgers University-Newark is a diverse and vibrant community of scholars and the Department of Biological Sciences offers unique opportunities for collaboration, as we are a federated department with the New Jersey Institute of Technology.

More information about the Department and the full posting for this vacancy can be found at <http://www.ncas.rutgers.edu/biology>. The successful candidate will have a Ph.D. and completed postdoctoral work focused on evolutionary biology. The successful candidate will have the ability to collaborate with diverse colleagues and disciplines, a strong publication record, and a demonstrated ability to develop a vigorous, extramurally funded research program. Evidence of or potential for excellence in teaching and mentoring and a commitment to fostering and supporting diversity will be considered.

Rank and salary will be commensurate with qualifications and experience. Interested applicants should submit a Curriculum Vitae, a statement of research and teaching goals, and the names and contact information of three references.

Applications and enquiries should be directed to: Evolutionary Biology Search Committee, Depart-

ment of Biological Sciences Rutgers University-Newark
195 University Ave. Newark NJ 07102 USA
(biosearc@andromeda.rutgers.edu)

Review of applications will begin December 15, 2015.

Rutgers University-Newark encourages applications from women, veterans, people with disabilities, and members of traditionally under-represented populations.

– Dr. Jessica L. Ware Assistant Professor Rutgers, the State University of New Jersey Boyden Hall, room 406 195 University Ave, Newark, NJ, 07102 973.353.5531

A word after a word after a word is power. -Margaret Atwood

Jessica Ware <jware@amnh.org>

through genetic and genomic research. We creatively apply genetic theory and methods to build knowledge about the evolutionary and life histories of animals, to understand the importance of genetic variation to species' survival, and to identify the methods needed to sustain them in captivity and the wild.

To obtain details of the position and to apply, proceed to the USAJOBS website (<https://www.usajobs.gov/-GetJob/ViewDetails/421893900>). For questions about the position please contact Rob Fleischer (fleischerr@si.edu). Information about CCEG and SCBI can also be found at <https://nationalzoo.si.edu/scbi/-cceg/>. This position is open to all U.S. Citizens or U.S. Nationals. The Smithsonian Institution is an Equal Opportunity Employer and Provider.

“Fleischer, Robert” <FleischerR@si.edu>

Smithsonian ComputationalGenomics

The Center for Conservation and Evolutionary Genetics (CCEG), Smithsonian Conservation Biology Institute (SCBI), National Zoological Park located in Washington, DC, invites applications for a permanent Computational Genomics Scientist position.

The purpose of the position is to conduct independent and collaborative research in bioinformatics as applied to biodiversity genomics and conservation biology, provide bioinformatics and computational expertise and training to scientists, and act as a bioinformatics liaison to the Smithsonian Biodiversity Genomics Institute.

Duties of the position include: * Conducts research projects in the area of bioinformatics as applied to biodiversity and conservation biology, including analyses of genomic, transcriptomic, metagenomic, and next generation DNA sequence datasets. * Develops or implements data analysis pipelines for Next Generation Sequence (NGS) or other genomics datasets. * Publishes scientific papers, chapters and books; prepares independent and collaborative research grant proposals and mentors bioinformatics students and postdocs. * Provides informal and formal bioinformatics and genomics training for other scientists in the Center and institution via workshops, seminars or short courses. * Acts as a liaison for bioinformatics activities of the Smithsonian Biodiversity Genomics Institute. * Keeps abreast of new developments and related research conducted elsewhere in order to improve genomics and related research at SI. CCEG works to understand and conserve biodiversity

Smithsonian ComputationalGenomics 2

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in order to improve genomics and related research at SI. CCEG works to understand and conserve biodiversity through genetic and genomic research. We creatively apply genetic theory and methods to build knowledge about the evolutionary and life histories of animals, to understand the importance of genetic variation to species' survival, and to identify the methods needed to sustain them in captivity and the wild.

To obtain details of the position and to apply, proceed to the USAJOBS website (<https://www.usajobs.gov/GetJob/ViewDetails/421893900>). Deadline for applications via USAJOBS website is 18 December 2015. For questions about the position please contact Rob Fleischer (fleischerr@si.edu). Information about CCEG and SCBI can also be found at <https://nationalzoo.si.edu/scbi/cccg/>. This position is open to all U.S. Citizens or U.S. Nationals. The Smithsonian Institution is an Equal Opportunity Employer and Provider.

“Fleischer, Robert” <FleischerR@si.edu>

Smithsonian Panama ResAssist Butterfly Speciation

Internship on butterfly speciation project in the tropics

We are seeking a research intern to work at the Smithsonian Tropical Research Institute (STRI) in Panama from ~mid March 2016 for a period of at least one year. The internship will focus on speciation in *Heliconius* butterflies (for more information please see <http://heliconius.zoo.cam.ac.uk/> < <https://urldefense.proofpoint.com/v1/url?u=3Dhttp%3A%2F%2Fheliconius.zoo.cam.ac.uk%2F&k=-diZKtJPqj4jWksRIF4bjkw%3D%3D%0A&r=-pvv7g3uQoGZXfkmG0YI3Sg%3D%3D%0A&m=-X5%2FGb0Vlr62GFD6CT5gNelvZtreBWzR5L9NXMtGRv6g%3D%0A&s=e728feed3a8a126c19fcd166023f8e9727db9d034f2c2437f7da9631ef917ecb> >).

The intern will join a vibrant community of scientists studying the origins and maintenance of tropical diversity (see <http://www.stri.si.edu> < <http://www.stri.si.edu/> >). The project is based in Gamboa and the intern will be assisting a project investigating the genetic basis of reproductive and ecological isolation between two sympatric *Heliconius* species. The project involves breeding butterflies, managing crossing experiments and conducting behavioural assays. Applicants must be able to work independently and be committed

to spending considerable time in Panama. A knowledge of Spanish and the ability to drive would be useful but are not essential.

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

Please send applications (with a CV and the names and contact details of two referees), or questions, to Richard Merrill (r.merrill@zoo.cam.ac.uk <mailto:r.merrill@zoo.cam.ac.uk>). Please use the subject header: “PANAMA RESEARCH ASSISTANT” before 15th December 2015.

Dr. Richard Merrill Department of Zoology | University of Cambridge

Panama: (+507) 64267029 UK Office: (+44)(0)1223 336644 UK Mob: (+44)(0)7590 984754 Email: r.merrill@zoo.cam.ac.uk Web: <http://www.zoo.cam.ac.uk/directory/richard-merrill> @dick-merrill

“rmm60@hermes.cam.ac.uk”
<rmm60@hermes.cam.ac.uk>

TempleU Evol Genomics

Genome Evolution/Cancer Faculty Position (Assistant Professor)

The Department of Biology at Temple University invites applications for a tenure-track Assistant Professor position at the interface of genomics and somatic evolution in cancer. Successful candidates will join core faculty of the new Institute for Genomics and Evolutionary Medicine (iGEM; igem.temple.edu). We seek candidates who will closely complement our existing strengths in molecular evolution, population genetics, phylogenomics, phylomedicine, and computational biology.

We are interested in scientists who will integrate concepts, methods, and tools from evolutionary and population genomics to address significant questions in cancer biology. Successful candidates will have a primary focus on large-scale analytics and computational science, although experimental approaches will also be considered. Relevant foci for research include “omics” variation associated with cancer predisposition, tumor development, clonal dynamics, metastasis, and response to therapeutics.

Applicants should submit to igem@temple.edu a single

pdf containing

** a cover letter, ** a detailed curriculum vitae, ** a summary of current and future research interests, ** a statement of teaching philosophy, and ** please include in the cover letter a link to a Google Scholar profile.

Applicants should inform the search committee about the transformative and cross-disciplinary aspects of their work within their research and teaching statements. Review of applications will begin on January 15, 2016 and continue until the position is filled. (See advertisement in Nature at <http://bit.ly/113B2yg>)

Temple University is located in the heart of historic Philadelphia, is the sixth largest provider of graduate school education in the USA, and includes the nearby School of Medicine and the NCI-designated Fox Chase Cancer Center. Situated in close proximity to New York City and Washington DC, Philadelphia is home to a large biotech industry and has many outstanding academic and research institutions.

Temple University is an equal opportunity, equal access, affirmative action employer, committed to achieving a diverse community (AA, EOE, m/f/d/v).

Sudhir Kumar, Ph.D. Director, iGEM@Temple (<http://igem.temple.edu>) Institute for Genomics and Evolutionary Medicine Carnell Professor of Biology Temple University (SERC 602A) Philadelphia, PA 19122, USA https://twitter.com/kumar_lab <http://www.kumarlab.net> “s.kumar@temple.edu” <s.kumar@temple.edu>

TempleU GenomeInfo

Informatics Faculty Positions (Assistant/Associate Professor)

The Institute for Genomics and Evolutionary Medicine (iGEM) at Temple University invites applications for tenured and tenure-track faculty positions. We are interested in early and mid-career scientists who are developing theories, methods, algorithms, software, and resources for addressing significant problems related to genome sequence variation. As core faculty of iGEM (<http://igem.temple.edu>), successful candidates will be part of an interdisciplinary team of world-class faculty in biology, genomics and computer and information sciences.

The successful faculty will have their tenure home in

the Department of Computer and Information Sciences. Applicants for the assistant professor position should have the potential to develop a significant, extramurally funded research program. Applicants for the senior position are expected to have an outstanding and continuing track record of research and funding.

Applicants should submit to igem@temple.edu a single pdf containing a cover letter, a detailed curriculum vitae, a summary of current and future research interests, and a statement of teaching philosophy. Please include in the cover letter a link to a Google Scholar profile. Research and teaching statements should inform the search committee about the transformative and cross-disciplinary aspects of the applicant's work. Review of applications will begin on December 15, 2015 and continue until the positions are filled.

Temple University is located in the heart of historic Philadelphia, and is the sixth largest provider of graduate education in the USA. Situated between New York City and Washington DC, Philadelphia is home to a large biotech industry and has many outstanding academic, research, and cultural institutions.

Temple University is an equal opportunity, equal access, affirmative action employer committed to achieving a diverse community (AA, EOE, m/f/d/v).

(See also, <https://chroniclevitae.com/jobs/0000908296-01>)

Sudhir Kumar, Ph.D. Director, iGEM@Temple (<http://igem.temple.edu>) Institute for Genomics and Evolutionary Medicine Carnell Professor of Biology Temple University (SERC 602A) Philadelphia, PA 19122, USA https://twitter.com/kumar_lab <http://www.kumarlab.net> “s.kumar@temple.edu” <s.kumar@temple.edu>

TulaneU 3yr EvolutionaryBiol

The Department of Ecology and Evolutionary Biology, Tulane University, invites applications for one full-time, non-tenure-track Professor of Practice beginning fall 2016. Professors of Practice are appointed for renewable three-year terms, which include benefits but do not lead to tenure. Candidates must hold a Ph.D. in the biological sciences and have teaching experience at the college level, preferably with experience in active learning classrooms. We seek an individual with demonstrated expertise in one or more areas of ecology, evolu-

tion and organismal biology as well as a commitment to excellence in undergraduate education of majors and non-majors, the advancement of science literacy, and the scholarship of teaching and learning. For more details about the position, department, search and applications, see <http://tulane.edu/sse/eebio/about/positions>

Submit a curriculum vitae, statement of teaching philosophy which includes a vision for instruction in introductory biology, evidence of teaching experience and proficiency (with the option to include other relevant documents such as evaluations and/or sample course materials), statement of research experience, and the names and contact information for three references, at least one of whom can speak to teaching experience to <http://apply.interfolio.com/32032>. /*This site will begin accepting applications on September 30*/.

/*Review of applications will begin November 15 2015*/, and the search will remain open until the position is filled. /Tulane is an EOE/M/F/Vet/Disabled employer/.

Additional Information about the Position

* The responsibilities of Professors of Practice are instruction and activities related to instruction, the normal teaching load being three courses per semester. * Professors of Practice largely serve the undergraduate teaching mission, including majors and non-majors, but they may also be involved in graduate education. * Teaching assignments for Professors of Practice will include lecture courses and laboratory courses. We are seeking someone who can contribute to our undergraduate introductory biology course offerings. We also value proficiency in and commitment to active learning/learner-centered teaching styles. * Professors of Practice broaden the scope of undergraduate education in biology within the EEB Department. The research foci of the EEB Department include tropical biology and riverine and coastal ecology. Tenured and tenure-track faculty concentrate their teaching in these areas of inquiry in which they are engaged. Undergraduate educational experiences, however, should be broad. Thus, Professors of Practice provide an important complement to undergraduate teaching, which serves to broaden the undergraduate curriculum in the EEB Department.

Please contact any member of the search committee if you have additional questions

* Dr. Donata Henry (droome@tulane.edu, committee chair) * Dr. Tim McLean (tmclean1@tulane.edu) * Dr. Caz Taylor (caz@tulane.edu)

– Elizabeth Derryberry, Ph.D. Assistant Professor Ken and Ruth Arnold Early Career Professor in Earth & Ecological Science Department of Ecology & Evolutionary Biology Tulane University New Orleans, LA 70118

504-862-8285 (office) 504-862-8706 (fax) elizabethderryberry.tulane.edu

Elizabeth Derryberry <ederrybe@tulane.edu>

UAlberta VertebratePalaeontology

UNIVERSITY OF ALBERTA Department of Biological Sciences

Philip J. Currie Professorship in Vertebrate Palaeontology Assistant/Associate Professor

The Department of Biological Sciences at the University of Alberta invites applications for an endowed professorship in Vertebrate Palaeontology at the Assistant or Associate Professor level; the endowment was established by the “River of Death and Discovery Dinosaur Museum Society” (RDDDMS) and via various stakeholders with commitment to science, research and education. This professorship is designed to recruit a new research leader to Alberta in vertebrate palaeontology. The research program, teaching commitments and service roles of the candidate will be conducted through the facilities of the Philip J. Currie Dinosaur Museum (PJCDM) in Wembley, Alberta, at the University of Alberta in Edmonton, and at various postsecondary institutions within Campus Alberta. The successful candidate will be expected to develop a dynamic and productive world-class research program in the Grande Prairie region and around the world, and will curate those parts of the collections of the University of Alberta Laboratory for Vertebrate Paleontology (UALVP) that will be housed at the PJCDM. The Professorship holder will contribute to the teaching of both undergraduate and graduate students through existing curricula at the University of Alberta, and through the creation of new and innovative programs under the umbrella of Campus Alberta. The Professorship holder will be expected to mentor University of Alberta graduate students at the University of Alberta, and will be committed to student research support via the holding of external research grants (e.g., NSERC Discovery Grants, CFI, etc.). The successful candidate must have a PhD, preferably postdoctoral experience, a strong research and publication record, and a demonstrated potential for excellence in teaching. The University of Alberta offers a competitive salary commensurate with experience, and has an excellent benefits plan. The Department of Biological Sciences (<https://uofa.ualberta.ca/biological-sciences>) with 65 active faculty members and approximately 250 graduate

students, offers an exciting environment for collaborative research with palaeontologists, ecologists, botanists, systematists, and geneticists. Exceptional infrastructure includes state of the art microscopy, SEMs/TEMs, preparation labs, etc. Candidates should electronically submit a curriculum vitae, a two-page summary of research interests, a one-page statement of teaching interests, and reprints of their three most significant publications to recruitment3@biology.ualberta.ca. Please arrange for three letters of reference to be sent to the attention of the Chair to recruitment3@biology.ualberta.ca

All correspondence should be addressed to:

Dr. Michael Caldwell, Chair Department of Biological Sciences CW405 Biological Sciences Building University of Alberta Edmonton, AB Canada T6G 2E9

Closing Date: December 15, 2015 The effective date of employment will be July 1, 2016.

All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority. The University of Alberta hires on the basis of merit. We are committed to the principle of equity in employment. We welcome diversity and encourage applications from all qualified women and men, including persons with disabilities, members of visible minorities, and Aboriginal peoples.

Linda Christensen, Administrative Assistant Department of Biological Sciences University of Alberta CW405 Biological Sciences Building Edmonton, AB T6G 2E9 Phone: 780-492-7348, Fax: 780-492-9234 e-mail: linda.christensen@ualberta.ca

“lindac@ualberta.ca” <lindac@ualberta.ca>

UArkansas ComparativeInvertZoology

ASSISTANT PROFESSOR in Comparative Invertebrate Zoology

The Department of Biological Sciences, University of Arkansas, invites applications for a 9-month tenure-track Assistant Professor position in Comparative Invertebrate Zoology beginning in August 2016. We are particularly interested in candidates with broad training in invertebrate biology that will complement departmental strengths in ecology and evolutionary biology, but other focal areas will also be considered. The successful candidate will establish an extramurally-funded

research program, teach an undergraduate Principles of Zoology course, develop upper-level graduate courses in their field of expertise, contribute to training of undergraduate and graduate students, and participate in professional service.

Minimum requirements include a Ph.D. in biology or related field and a strong research record. Preferred candidates will use a comparative organismal approach and a combination of quantitative, theoretical, or empirical research methodologies.

The Department of Biological Sciences emphasizes cell and molecular biology, ecology and evolutionary biology. Biological sciences maintains one of the largest undergraduate majors in the university. Special topics courses, interdisciplinary graduate programs and undergraduate research opportunities expose students to a rigorous background in basic and advanced biology and allow for specialized coursework. More information about the department can be found at: <http://biology.uark.edu>. The University: The University of Arkansas provides an internationally competitive education for undergraduate and graduate students in a wide spectrum of disciplines. The university contributes new knowledge, economic development, basic and applied research and creative activity while also providing service to academic and professional disciplines. The Carnegie Foundation classifies the University of Arkansas among only 2 percent of universities in America that have the highest level of research activity. Founded in 1871, the University of Arkansas comprises 10 colleges and schools and offers more than 200 academic programs. The university maintains a low student-to-faculty ratio of 19:1 that promotes personal attention and mentoring opportunities. U.S. News & World Report ranks the University of Arkansas 63 among the 623 American public research universities, and the university's goal is to be top 50 by the celebration of its 150th anniversary in 2021.

Submit a cover letter, Curriculum vitae, teaching statement, and research statement to <http://jobs.uark.edu/-postings/10388>. The names, titles, email addresses, and contact numbers of five professional references willing to provide letters of reference will be requested during the application process. Specific inquiries may be directed to the Search Committee Chair, Dr. Michelle Evans-White (mevanswh@uark.edu). Completed applications received by December 12, 2015 will be assured full consideration. Late applications will be reviewed as necessary to fill the position.

The anticipated start date is 15 August 2016.

The University of Arkansas is an Affirmative Action/EOE institution committed to achieving diversity in its faculty and staff. We encourage applications from

all qualified candidates, especially individuals who contribute to diversity of our campus community. The university welcomes applications without regard to age, race, gender (including pregnancy), national origin, disability, religion, marital or parental status, protected veteran status, military service, genetic information, sexual orientation or gender identity. All applicant information is subject to public disclosure under the Arkansas Freedom of Information Act and persons must have proof of legal authority to work in the United States on the first day of employment.

Adam Michael Siepielski <amsiepie@uark.edu>

UBath Evolution 2

I should start by making it clear that the position in evolution at the University of Bath being advertised here is NOT the same as the ones previously announced on Evoldir. Therefore, if you applied for the previously announced positions and are interested in also being considered for this new position, please submit an application through this new call.

We are excited to announce that the University of Bath is currently recruiting an evolutionary biologist (at a level that is essentially equivalent to Lecturer = Assistant Professor). This position is one out of a total of 18 positions being recruited through the 50th Anniversary Prize Fellows program. Six of these positions are in the sciences, with one appointment dedicated to the Evolutionary Biology theme of the Milner Centre for Evolution.

These Fellowship positions are essentially tenure track positions aimed at developing the fellows into permanent academic posts, where Fellows are given the opportunity to transfer into permanent post of Lecturer (Assistant Professor) at the end of year two or exceptionally at the end of year three.

For more information about the positions available in the life sciences see:

<http://www.bath.ac.uk/science/prize-fellows/bio-sci-prize-fellowships-areas.html>

For more information on the Milner Centre for Evolution see:

<http://www.bath.ac.uk/projects/the-milner-centre-for-evolution/> For a general overview of the 50th Anniversary Prize Fellowships program (including the

positions available across all fields) please see:

<http://www.bath.ac.uk/campaigns/50th-anniversary-prize-fellowships/> jason@evolutionarygenetics.org

UCalifornia SantaBarbara FieldLabTech DiseaseDynamics

OVERVIEW: Seeking BS or higher for paid lab/field position based at UCSB working on topics in both community ecology, wildlife decline, and disease ecology

APPLY: Apply at UCSB jobs website - <https://jobs.ucsb.edu/applicants/jsp/shared/frameset/-Frameset.jsp?time1448401823281> . Application review begins on Dec 10, position open until filled.

DETAILS PROVIDED BELOW (details on salary and benefits available at UCSB jobs website). Duration: 1 Year (with possibility to extend) Start Date: Candidates available for start early 2016 Seeking applications from qualified candidates (BS or higher) to help manage field and lab activities, and data entry and analyses for a research project seeking to understand links between community composition and disease dynamics. This is a full-time 1 year placement which includes both field and lab work in the Santa Barbara area. Background in science is necessary. Expertise in GIS and/or phylogenetic comparative methods would be a strong asset but is not required.

Interested candidates please provide in your online application package 1) a CV with GPA and any relevant coursework, 2) a 1-2 paragraph statement of interest, 3) names of 3 references and their contact information, and 4) the date you would be available to start. All details available at UCSB jobs website.

Best regards, Hillary

Hillary S Young Noble Hall 2116 Department of Ecology, Evolution, and Marine Biology University of California, Santa Barbara Santa Barbara, CA Phone: 805-893-4681 <http://www.eemb.ucsb.edu/people/faculty/young>
Hillary Young <hillary.young@lifesci.ucsb.edu>

UCentralArkansas PopEvolGenetics

2

Below is a re-advertisement of our open tenure-track faculty position. Application “deadline” is fast approaching: December 1. Get your applications in to join a dynamic department at an excellent university!

TENURE-TRACK FACULTY POSITION

Population/Evolutionary Geneticist

The Department of Biology at the University of Central Arkansas invites applications for a tenure-track position in the area of Population/Evolutionary Genetics. Teaching responsibilities will include sophomore-level Genetics for majors and upper-division/graduate courses that augment our current programs. The appointment will be at the Assistant Professor level and will begin August 15, 2016. Applications are sought from outstanding individuals who value quality teaching and are dedicated to developing an active research program involving both undergraduate and Masters level students. The position offers a reduced teaching load initially, dedicated research space, start-up funding, and opportunities for internal as well as external grants.

The Department of Biology has 35 full-time faculty, approximately 700 undergraduate majors, an interdisciplinary Environmental Science program, and a growing Masters program that currently enrolls 25 graduate students (18 institutionally supported TA positions). A new research and teaching addition is under construction and scheduled to open January 2017. The department is research active with funding from external, competitive sources (e.g., NSF, NIH, federal and state agencies). Shared research space and instrumentation includes plant growth chambers, three greenhouses, approved animal facilities, a real-time PCR machine, confocal microscope, and a flow cytometer. Please visit our website for more details <http://uca.edu/biology/>. Once on this website, enter 173149 as the Position Number to access the full advertisement.

Submit letter of interest, curriculum vitae, copies of graduate transcripts, statement of teaching philosophy, an outline of research plans indicating where students may participate, and the names and contact information for three references to the on-line application process at <https://jobs.uca.edu>. Review of applications will begin December 1 and will continue until the position is filled.

Questions regarding the position may be sent to Dr. Brent Hill, Interim Chair of Biology (bhill@uca.edu).

Ph.D. required. Post doctoral experience is preferred. Review of applications will begin December 1. UCA is an Equal Opportunity/Affirmative Action Employer.

Matthew E. Gifford Assistant Professor Department of Biology University of Central Arkansas 201 Donaghey Ave. Conway, Arkansas 72035 Office: LSC120, 501.450.5927 Email: megifford@uca.edu Web: giffordlab.weebly.com

Matthew Gifford <megifford@uca.edu>

UCincinnati EvolutionAnimalBehavior

The Department of Biological Sciences at the University of Cincinnati invites applications for a tenure-track faculty position in the area of BEHAVIORAL PHYSIOLOGY at the level of Assistant Professor. We are seeking an individual who uses cellular/molecular approaches to investigate questions about physiological mechanisms underlying the function, development and evolution of animal behavior. Candidates should complement existing departmental strengths in Sensory Biology, Behavior & Evolution, as well as Environmental Change & Biological Resilience. Applicants must hold a Ph.D. and have postdoctoral experience. The successful candidate will build an outstanding, externally funded research program, and contribute to undergraduate and graduate teaching, and fulfill service duties.

For instructions on how to apply, go to <https://jobs.uc.edu> and search for Requisition # 8982. Please address any questions regarding the search to Dr. Bruce Jayne at bruce.jayne@uc.edu.

Review of applications will begin December 7, 2015, and will continue until the position is filled.

The University of Cincinnati is an affirmative action/equal opportunity employer. Women, People of Color, persons with a disability, and covered veterans and disabled veterans are encouraged to apply. We are committed to increasing the diversity of the University community. Candidates who can contribute to that goal are encouraged to apply and to identify their strengths or experiences in this area.

rachelgilbert11@gmail.com

UCincinnati SensoryEvolution

The Department of Biological Sciences at the University of Cincinnati invites applications for a tenure-track faculty position in the area of SENSORY ECOLOGY at the rank of Assistant Professor. We are seeking an individual who brings mechanistic approaches to questions about animal sensory systems of behavioral, ecological or evolutionary relevance, and who will complement existing departmental strengths in Sensory Biology, Behavior & Evolution, as well as Environmental Change & Biological Resilience. Applicants must hold a Ph.D. and have postdoctoral experience. The successful candidate will build an outstanding, externally funded research program, and contribute to undergraduate and graduate teaching, and fulfill service duties. For instructions on how to apply, go to <https://jobs.uc.edu> and search for Requisition # 8981. Please address any questions regarding the search to Dr. Michal Polak at michal.polak@uc.edu. Review of applications will begin December 7, 2015, and will continue until the position is filled. The University of Cincinnati is an affirmative action/equal opportunity employer. Women, People of Color, persons with a disability, and covered veterans and disabled veterans are encouraged to apply. We are committed to increasing the diversity of the University community. Candidates who can contribute to that goal are encouraged to apply and to identify their strengths or experiences in this area.

Michal Polak, PhD Professor Department of Biological Sciences University of Cincinnati Cincinnati, OH 45221-0006 USA Tel: +1 (513) 556-9736 Email: polakm@uc.edu

“Polak, Michal (polakm)” <polakm@ucmail.uc.edu>

UCIrvine EcologyEvolution

The Department of Ecology and Evolutionary Biology at University of California, Irvine, invites applications for a faculty position at the level of Assistant Professor beginning Fall 2016. Faculty research in the department spans a wide range of topics in ecology, evolution, and physiology (<http://ecoevo.bio.uci.edu/>). Candidates for

this position should address the interaction between organisms and the atmosphere. Research topics might include genetics, ecology, or physiology of the emission or uptake of atmospheric constituents; or the impacts of air quality on plants, microbes, animals, or ecosystems. Atmospheric constituents are broadly defined and can include volatiles, trace gases, or particulates. The successful applicant is expected to conduct a strong research program and contribute to the teaching mission of the University of California. This position is part of a high impact hiring cluster at the interface of air quality and climate change. The successful candidate is expected to be an integral part of a campus-wide collaboration under the umbrella of the AirUCI institute (<http://airuci.uci.edu/>).

Applicants should submit a cover letter, CV, statement of research interests, statement of teaching philosophy, 3 letters of recommendation, and up to 3 publications. A separate statement that addresses past and/or potential contributions to diversity, equity and inclusion must also be included in the application materials. Applications should be uploaded electronically by January 1, 2016.

Apply at <https://recruit.ap.uci.edu/apply/JPF03189>
The University of California, Irvine is an Equal Opportunity/Affirmative Action Employer advancing inclusive excellence. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, protected veteran status, or other protected categories covered by the UC nondiscrimination policy. A recipient of an NSF ADVANCE award for gender equity, UCI is responsive to the needs of dual career couples, supports work-life balance through an array of family-friendly policies, and is dedicated to broadening participation in higher education.

– Diane Campbell Professor

Dept. Ecology & Evolutionary Biology University of California, Irvine Irvine, CA 92697 USA

<http://campbell-lab.bio.uci.edu/> “drcampbe@uci.edu”
<drcampbe@uci.edu>

“Lewis, Tina” <Tina.Lewis@liverpool.ac.uk>

UConnecticut ViralCoevolution

The Department of Molecular and Cell Biology at the University of Connecticut is searching for a cell biologist / virologist to join the department at the Assistant Professor level. A candidate doing research on the co-evolution of host and viruses would complement the existing strengths in the Department. For more information see <http://tinyurl.com/virus-host>. J. Peter Gogarten Board of Trustees Distinguished Professor Department of Molecular and Cell Biology Institute for Systems Genomics 91 North Eagleville Road, Unit 3125, BPB 404 Storrs CT 06269-3125, USA

Phone: 860 486 4061 (office) 860 486 1887 (lab) 860 465 6267 (cell) FAX: 860 486 4331 Email: gogarten@uconn.edu www: <http://gogarten.uconn.edu/jpgogarten@gmail.com>

ULiverpool PopulationGenomics

3 Lecturers/Senior Lecturers in Biological Sciences, Institute of Integrative Biology, University of Liverpool

Applications are invited from individuals with expertise in any of the following areas:

- Eco-immunology
- Microbiome Science
- Population Genomics

You should have an established track record of research and experience of undergraduate/postgraduate teaching and have a high quality, relevant publication record and the ability to attract substantial grant funding. You should have a degree and a PhD in a relevant discipline.

Full details available at: <http://www.liv.ac.uk/-working/jobvacancies/currentvacancies/academic/a-589700/> Tina Lewis

Management Services Team Leader Institute of Integrative Biology University of Liverpool Biosciences Building Liverpool L69 7ZB Tel: 0151 795 4406

tina.lewis@liv.ac.uk

<http://www.liverpool.ac.uk//integrative-biology>

UMiami ResTech MarinePopGenetics

The University of Miami is home to some of the brightest minds in the world. At the U, we are committed to attracting and retaining a talented workforce to support our common purpose of transforming lives through teaching, research, and service. We are leaders in the area of education, scholarship, intercollegiate athletics and service. Come join our team!

The Cooperative Institute for Marine and Atmospheric Studies (CIMAS) of the University of Miami invites applicants for a Research Associate III or Senior Research Associate I position in Marine Biology and Fisheries.

We seek a research associate to join our group and work as a laboratory technician in the Marine Mammal Molecular Genetics laboratory. The incumbent’s primary focus will be collecting and analyzing DNA sequence and microsatellite data from a variety of marine mammal populations and species.

Research Associate III Position #:P100009507

Candidates for the Research Associate III position should have: (1) Bachelor’s degree. (2) At least five plus years of relevant work related experience including evidence of research accomplishments leading to the dissemination of new information. (3) Demonstrated experience with molecular biological techniques, particularly DNA extractions and DNA sequencing or microsatellite genotyping methodologies. (4) The ability and desire to work as part of a collaborative team. (5) Excellent problem solving and critical thinking skills, good organizational skills and the ability to plan daily duties.

Senior Research Associate I Position #: P100009509

Candidates for the Senior Research Associate I position should have: (1) Master’s degree in Molecular Biology, Biology or related field. (2) Demonstrated experience with molecular biological techniques, particularly DNA extractions and DNA sequencing or microsatellite genotyping methodologies. (3) Experience with analyses of population structure and diversity from genetic data. (4) The ability and desire to work as part of a collaborative team. (5) Excellent problem solving and critical thinking skills, good organizational skills and the ability to plan daily duties.

The position will be located at the NOAA Fisheries Southeast Fisheries Science Center Protected Resources and Biodiversity Division located in Lafayette, LA. Start date is flexible, but ideally around no later than February 1, 2016.

Apply on line at: www.miami.edu/careers Curriculum Vitae and the contact information for three people who can provide letters of recommendation are required.

The University of Miami offers competitive salaries and a comprehensive benefits package including medical and dental benefits, tuition remission, vacation, paid holidays and much more. The University of Miami is an Equal Opportunity/Affirmative Action Employer.

Follow us on Twitter @univmiamijobs

The University of Miami is an Equal Opportunity Employer - Females/Minorities/Protected Veterans/Individuals with Disabilities are encouraged to apply. Applicants and employees are protected from discrimination based on certain categories protected by Federal law. Click here for additional information.

Patricia Rosel - NOAA Federal
<patricia.rosel@noaa.gov>

UMinnesota EvolutionaryBotany

Tenure Track Botanist Position: University of Minnesota

The College of Biological Sciences at the University of Minnesota announces a tenure-track botanist position at the assistant professor level in the Department of Plant Biology. We welcome applicants working in any area of botany with a focus on organismal biology and botanical diversity. We seek outstanding candidates who employ innovative comparative approaches to gain insight on the evolution, ecology, systematics, biogeography, genetics, physiology, development, or biochemistry of plants. Competitive applicants will have the skills required to establish successful research programs that integrate different approaches including but not limited to herbarium collections, field exploration, experimentation, phylogenetics, modeling, and/or computation.

Interested in joining the CBS faculty? Visit job posting for detailed information (https://www.myu.umn.edu/psprd/EMPLOYEE/HRMS/c/HRS_HRAM.HRS_APP_SCHJOB.GBL?Page=-HRS_APP_JBPST&Action=-U&FOCUS=Applicant&SiteId=-

[1&JobOpeningId05373&PostingSeq=1](#)). Review of applications by the search committee will begin on November 30, 2015.

The College of Biological Sciences at the University of Minnesota recently hired 18 scientists among six interdisciplinary clusters in emerging areas of biology that connect with other STEM disciplines. Find out what makes Minnesota a great place to work and live. Learn more about the College of Biological Sciences (<http://cbs.umn.edu>), the University of Minnesota (<http://umn.edu>) and the Twin Cities (<http://umn.edu/wishyouwerehere>). Questions about the application process may be directed to Michael Ouverson (ouver005@umn.edu). Questions about positions may be directed to the chair of the search committee, George Weiblen (gweiblen@umn.edu).

The University of Minnesota provides equal access to and opportunity in its programs, facilities, and employment without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression. The University supports the work-life balance of its faculty and especially encourages applications from women and members of under-represented groups.

Michael Ouverson <ouver005@umn.edu>

UMontana CraigheadChairConservationEcology

note: this is titled as an ecology position, but outstanding candidates with an evolutionary or genetic/genomic focus (who also fulfill the other requirements of the chair) are encouraged to inquire or apply.

The John J. Craighead Endowed Chair in Wildlife Biology

The Organismal Biology and Ecology program at the University of Montana seeks a leader in Wildlife Conservation Ecology to fill the John J Craighead Endowed Chair. We envision hiring at the associate level but will consider other ranks. This nine-month appointment will have its home with the Organismal Biology and Ecology (OBE) group and will be integrally involved in the Wildlife Biology Program. Wildlife Biology is an interdisciplinary group of faculty from the Division of Biological Sciences, the College of Forestry and Conser-

vation, and the Montana Cooperative Wildlife Research Unit.

The ideal candidate will work at the interface of basic and applied ecology to address fundamental issues in wildlife conservation. OBE and Wildlife Biology are internationally recognized programs comprised of interactive faculty with outstanding records of scholarship and teaching. The Wildlife Biology Program ranks as one of the top Wildlife/Conservation programs in the US. Both OBE and Wildlife have been recognized as Programs of National Distinction by the UM administration. The successful applicant will live and work in Missoula, a beautiful city in the northern Rockies, surrounded by some of the most extensive and wild public lands in the lower 48 states.

Responsibilities: The successful candidate will maintain a vigorous, externally funded research program, participate in our OBE and Wildlife graduate programs, and teach one undergraduate or graduate course per year to facilitate interactions with students.

Academic and Professional Qualifications: The candidate must: 1) have a Ph.D.; 2) demonstrate an internationally recognized record of research achievement and grant funding; 3) demonstrate potential for or a record of teaching excellence, and 4) be able to communicate effectively with conservation stakeholders and the general public.

John J Craighead: This position has been established to honor the remarkable career of Dr. John J Craighead, who called the University of Montana his academic home during 25 years as leader of the Montana Cooperative Wildlife Research Unit. His research experience across diverse taxa contributed to Dr. Craighead's recognition by the National Geographic Society as one of the 20th century's eminent scientists. Dr. Craighead was honored with the prestigious Aldo Leopold Award from The Wildlife Society and with the Individual in Academia Distinguished Service Award by the Society for Conservation Biology. His association with the University of Montana helped establish UM's Wildlife Biology Program as one of the most distinguished programs in the United States.

University of Montana and Missoula: Located in Missoula, the University of Montana is the flagship liberal arts institution in the state. It has approximately 13,000 students, including an active and growing graduate school. The University's strategic goals include expanding total research productivity and growing its doctoral programs. Missoula is a city of approximately 70,000 people offering a high quality of life and many social and cultural amenities. The area includes abundant national and state forests, parks, wildlife refuges,

and wilderness areas that provide diverse research and recreational and opportunities.

Application Information: Applications must be submitted through the University of Montana Jobs website at <http://bit.ly/1408wbio> and include a current CV, a statement of research and teaching interests, three representative publications, and contact information for three references. Screening of applications will begin Jan 10, 2016 and continue until position is filled.

Inquiries pertaining to the announcement can be directed to Creagh Breuner, Search Committee Chair, Ph: 406-243-5585 or E-mail: creagh.breuner@umontana.edu. The University of Montana is an AA/EOE/ADA/Veterans preference employer. Minorities and underrepresented groups are encouraged to apply. Position announcements can be made available in alternative formats upon request. Finalists will be subjected to a background check.

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

lilafishman@gmail.com

UNeuchatel EvolutionaryGenetics

The University of Neuchâtel, Switzerland, invites applications for a position of

Assistant professor in evolutionary genetics

Description of position: the successful candidate will direct a laboratory at the Institute of Biology within the Faculty of Science. We seek applications from excellent candidates, whose research focuses on micro-evolutionary processes and/or speciation, using quantitative genetics or genomics. We particularly welcome applicants who take an experimental and field-based approach to their research. Such research complements existing strengths within the institute and hence facilitates internal collaborations. All teaching duties will be linked to the successful candidate's expertise. The teaching language is English at the Master level and French at the Bachelor level. A non French-speaking appointee would be asked to achieve fluency for teaching in French following a two-year period of adaptation.

Start date: 1st of August 2016 or upon agreement.

Required Qualifications: PhD in Biology and internationally recognized research record in evolutionary ge-

netics

Application Submission Date: 15th February 2016. Applications must be submitted as a single pdf file at the site www.unine.ch/candis (ref. FS-G n tinueEv).

The application will include a letter of motivation, current CV indicating teaching and research experience, a list of received third-party funding, a list of publications, and a copy of diplomas. The candidate will present (3 pages maximum) his/her research interests, his/her scientific vision of the field, and the projects he/she intends to carry out at the University of Neuch tel. The candidate will invite three experts to address each a letter of recommendation per e-mail directly to the President of the Hiring Committee, Prof. Jacob Koella (jacob.koella@unine.ch) also by February 15th 2016..

Further information can be obtained from the President of the Hiring Committee, Prof. Jacob Koella (jacob.koella@unine.ch) or the Dean (doyen.sciences@unine.ch), as well as on the site www.unine.ch/sciences. The University of Neuch tel is an equal opportunity employer.

Neuch tel is located in the French part of Switzerland and is an attractive city with a high quality of life. The city is located on the shore of Lake Neuch tel with the Jura Mountains to the North and a view of the Bernese Alps to the South. For outdoors enthusiasts, this is an excellent area or activities such as hiking, climbing or skiing.

Jacob Koella

Institut de Biologie Universit  de Neuch tel rue Emile-Argand 11 2000 Neuch tel Switzerland

jkoella@gmail.com

UNottingham 3yr AppliedEntomology

Dear EvolDir members,

Issues in insect production (e.g. mass rearing for biological pest control or for other aspects of commercial production) often lie parallel to evolutionary and behavioural ecological considerations, in that both the insect and the producer are aiming to maximise or optimise output of offspring.

We are advertising a 3 year research job in insect nutrition/commercial insect production that may suit en-

tomologists who have hitherto been focussed on evolutionary ecology or behaviour, as well as candidates with other backgrounds.

Details are in the link: <http://www.nottingham.ac.uk/-jobs/currentvacancies/ref/SCI174915X1> This job is based near Royston, Hertfordshire, UK, but the appointed person would be a University of Nottingham staff member.

Please feel free to forward this to any potential candidates. Best regards, Ian Hardy

Dr Ian C.W. Hardy School of Biosciences, University of Nottingham, LE12 5RD, UK

Text of the advertisement:

Knowledge Transfer Partnership Associate Researcher in Insect Nutrition and Production Reference: SCI174915X1 Closing Date: Friday, 4th December 2015 Job Type: Research & Teaching Department: Biosciences (Please note that this role will be located in Royston). Salary:  19000 to  24000 per annum, depending on skills and experience.

A Knowledge Transfer Partnership (KTP) project between Monkfield Nutrition Ltd and the University of Nottingham, School of Biosciences creates an exciting opportunity to undertake and manage this project in a rapidly emerging area of nutrition and agriculture research.

With appropriate training and support, the successful applicant will lead and manage this research project aimed at helping the company increase livestock (insect) yields and open up new markets (for both animal and human nutrition) by utilizing insects as an alternative protein source. This is an opportunity for a graduate to have a significant position in a real-world commercial environment, with the benefit of access to academic research, supervision, support and advice. It represents an ideal opportunity for entry in to the UK Agri-Food Industry which is currently worth over  100billion to the UK economy and is responsible for 13% of national employment.

Whilst an employee of the University of Nottingham, the post-holder will be based at Monkfield Nutrition Ltd.'s insect production facility in rural Hertfordshire (near Royston). They will be supported by regular meetings between academic and industrial partners and have full access to University research facilities.

Candidates should have: . A BSc/BA at 2.1 or above in agriculture, animal science, bioscience, nutrition, veterinary sciences or other appropriate area. . The ability to work within an insect breeding environment in a rural location and environment. . Strong ability to work

independently, prioritize tasks and construct arguments . Analytical skills, problem-solving, systematic information gathering and project management . Ability to work with a range of people including managers, technical staff and clients . Technical capabilities for accurate recording of data, statistical analyses and reporting in verbal and written formats.

Salary will be between £19,000 - £24,000 per annum, depending on skills and experience. An excellent individual training package is also available, including possible registration for a higher degree. This post will be offered on a fixed-term contract for a period of three years and the successful candidate must be post by 1 February 2016 at the latest. Due to the rural location of the facility, free accommodation could be offered to the post-holder if required.

The School of Biosciences is the UK's strongest teaching and research centre for fundamental and applied biological, agricultural, environmental and food sciences.

Informal enquiries may be addressed to Dr Ian Hardy (ian.hardy@nottingham.ac.uk) or Prof. Andy Salter (andrew.salter@nottingham.ac.uk). Applications sent directly to these email addresses will not be accepted.

Knowledge Transfer Partnerships is a government funded technology transfer initiative that supports partnerships between business and universities, placing graduates on challenging, high profile projects. Further information is available at: <http://www.ktponline.org.uk> . . Job Description/Role Profile . Information for candidates (pdf | doc) . Apply Online

Ian Hardy <Ian.Hardy@nottingham.ac.uk>

UPittsburgh LabManager EvolutionLab

Manager/Technician Reply-To: coririchards@gmail.com

The Richards-Zawacki lab at the University of Pittsburgh seeks a Lab Manager who will manage maintenance of laboratory equipment, purchase supplies, and supervise animal (amphibian) care and undergraduate lab assistants. The incumbent will also be responsible for generating and analyzing molecular data for ongoing projects on the topics of amphibian ecology, evolution and conservation, and providing technical assistance to other personnel involved in these projects who are using similar techniques. Management experience and excellent communications skills, as well as experience

with basic molecular and microbiology techniques are required. The incumbent will train new personnel who are recruited to the project and supervise the efforts of undergraduates. This includes regular meetings with personnel and supervision of notebook keeping. This position will report to Dr. Richards-Zawacki and work in collaboration with her to manage laboratory activities.

For more information, and to apply to the position, follow this link.

<https://www.pittsource.com/postings/107516> The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer.

—
Corinne L. Richards Zawacki, Ph.D. cori.zawacki@pitt.edu Associate Professor, Department of Biological Sciences and Director, Pymatuning Laboratory of Ecology University of Pittsburgh

“At night I went out into the dark and saw a glimmering star and heard a frog and nature seemed to say, well do not these suffice?” - Ralph Waldo Emerson

URhodeIsland Bioinformatics

Dear colleagues,

The University of Rhode Island is seeking to hire 3 academic year, tenure-track faculty at the rank of Assistant Professor who are focused on developing or applying big data approaches to investigate problems in various scientific disciplines. We are looking for an active, culturally and academically diverse team of scholar-educator in the following areas: 1) Computer Engineering; 2) Bioinformatics/Computational Biology & Environment Science; and 3) Computational Statistics & Machine Learning. We expect that the successful candidates will be able to work with each other and other faculty at The University of Rhode Island in interdisciplinary teams to develop new technologies and approaches for solving data-intensive research projects.

These positions are part of the University's interdisciplinary initiative to hire a cluster of eight tenure-track faculty members who will apply or develop data- and computation-intensive methodology and systems across the University through interdisciplinary research and teaching. Information about URI's cluster hire initiative may be found at <http://web.uri.edu/provost/cluster-hire-initiative/>; additional information describing the

goals of the Big Data Initiative may be found at: <http://web.uri.edu/BigData> . To Apply: Visit the URI jobs website at: <https://jobs.uri.edu> to apply and view complete details for job postings (Assistant Professor - Computer Engineering - Big Data) #SF00177, (Assistant Professor - Bioinformatics/ Computational Biology and Environmental Science) #SF00178, and (Assistant Professor - Computational Statistics & Machine Learning) #SF00179

Applicants are asked to attach to the electronic application: Please attach 4 (PDF) documents to your electronic Faculty Profile Application: (#1) Cover letter clearly and briefly addressing how the candidate meets the qualifications for the position; (#2) a Curriculum Vitae that includes the names and contact information for three references; (#3) Teaching Statement (no more than 2 pages, but as one complete pdf), (#4) Other Document a research statement that also includes how the candidate would potentially interact with the members of the cluster and faculty at the University of Rhode Island (no more than 3 pages, but as one complete pdf). Questions about the position can be forwarded to the Search Chair: Dr. Marta Gomez-Chiarri, gomezchi@uri.edu

APPLICATION DEADLINE: Search will remain open until filled. First consideration will be given to applications received by December 8, 2015. Second consideration may be given to applications received by January 5, 2016. Application received subsequent to the second consideration date (January 5, 2016) may not be given full consideration.

The University of Rhode Island is an AA/EEOD employer. Women, persons of color, protected veterans, individuals with disabilities, and members of other protected groups are encouraged to apply.

Chris Lane Associate Professor Department of Biological Sciences University of Rhode Island 120 Flagstaff Road Kingston, RI, 02881 Office: CBLS 277 ph (401) 874-2683 fax (401) 874-2065 <http://cels.uri.edu/bio/-lanelab/> Chris Lane <clane@uri.edu>

USydney TranslationalBioinformatics

ASSOCIATE PROFESSORSHIP (LEVEL D ACADEMIC) IN TRANSLATIONAL BIOINFORMATICS - CALL FOR EXPRESSIONS OF INTEREST

The Westmead Millennium Institute of Medical Research (WMI), Westmead Hospital and Marie Bashir Institute for Infectious Diseases and Biosecurity of The University of Sydney, Australia, invite applications for this position from scientists or clinicians whose work falls within the general field of translational bioinformatics. Candidates will have an excellent track record in quantitative, system level research aimed at improving the understanding of mechanisms and/or epidemiology of infectious diseases (and may include the role of the microbiome in human disease). They will also have the leadership, enthusiasm and experience to build on current strengths in microbial genomics across Westmead research precinct and develop their own group. Engagement with colleagues from Sydney Medical School and the Institute of Clinical Pathology and Medical Research V Pathology West within the frame of existing and future research programs is expected. The candidate will take a leadership role in driving the bioinformatic requirements within the research groups. Candidates should hold a PhD or equivalent in mathematics, computer science or biomedicine and demonstrated potential for significant research contribution. Applications from experts in microbial genomics and/or big data analytics will be particularly welcome.

The position will be based at the WMI, Sydney. Informal enquiries may be directed to Professors Tony Cunningham (tony.cunningham@sydney.edu.au), Tania Sorrell (tania.sorrell@sydney.edu.au) or Eddie Holmes (edward.holmes@sydney.edu.au).

PROFESSOR EDWARD C. HOLMES FAA NHMRC
Australia Fellow

THE UNIVERSITY OF SYDNEY Marie Bashir Institute for Infectious Diseases & Biosecurity, Charles Perkins Centre, School of Biological Sciences and Sydney Medical School, The University of Sydney | Sydney | NSW | 2006 | Australia T +61 2 9351 5591 F +61 2 9351 3890 E edward.holmes@sydney.edu.au

edward.holmes@sydney.edu.au

UTennessee Knoxville SpatialConservation

The Department of Ecology and Evolutionary Biology at the University of Tennessee, Knoxville, and the National Institute for Mathematical and Biological Synthesis (NIMBioS) seek an outstanding scholar to fill a tenure-track position in Spatial Biology at the assistant professor level. We particularly welcome applicants who focus on research questions that involve collection, analysis, interpretation and modeling of spatial data to understand biological processes at any scale above the level of that within a single individual. For example, we invite applications from candidates with experience in spatial statistics in environmental or conservation systems including spatial aspects of disease, experience in GIS/Spatial DataBases/remote sensing and application to human/environment systems (including urban), phylogeography, experience in continent-scale large-data analytics as for example arising from NEON, as well as many other topics. The primary appointment will be in the Department of Ecology and Evolutionary Biology and the individual will also be an affiliated faculty member of NIMBioS. The position could, depending upon the applicant, be made jointly with other units including Geography. The successful applicant will benefit from opportunities to collaborate with an active research community in quantitative biology and computational spatial sciences scientists in the University and NIMBioS and at nearby Oak Ridge National Laboratory. The EEB faculty is very interactive and interdisciplinary and Knoxville itself is a vibrant, affordable, family-friendly community benefiting from a wealth of nearby natural areas (Great Smoky Mountains National Park, nearby National Forests, State Parks, etc). The Knoxville campus of the University of Tennessee is seeking candidates who have the ability to contribute in meaningful ways to the diversity and intercultural goals of the University.

Expectations for a successful candidate include an exceptional record of scientific accomplishment, an ability to develop a productive, externally-funded research program, an ability to mentor students from diverse backgrounds, excellent communication skills and application of effective teaching strategies. Interested applicants should send a cover letter, CV, statement of research accomplishment and plans, a description of teaching experiences and interests and the names and contact information of at least three individuals who could write

letters of reference to SpatialBiologySearch@utk.edu. Applicants must have a PhD or equivalent. Applications will be reviewed beginning December 15, 2015, and will continue until filled, with a position start date of August 2016.

For more information, visit <http://www.nimbios.org/-positions/>. All qualified applicants will receive equal consideration for employment and admissions without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation, gender identity, age, physical or mental disability, or covered veteran status. Eligibility and other terms and conditions of employment benefits at The University of Tennessee are governed by laws and regulations of the State of Tennessee, and this non-discrimination statement is intended to be consistent with those laws and regulations. In accordance with the requirements of Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990, The University of Tennessee affirmatively states that it does not discriminate on the basis of race, sex, or disability in its education programs and activities, and this policy extends to employment by the University. Inquiries and charges of violation of Title VI (race, color, and national origin), Title IX (sex), Section 504 (disability), ADA (disability), Age Discrimination in Employment Act (age), sexual orientation, or veteran status should be directed to the Office of Equity and Diversity (OED), 1840 Melrose Avenue, Knoxville, TN 37996-3560, telephone (865) 974-2498. Requests for accommodation of a disability should be directed to the ADA Coordinator at the Office of Equity and Diversity. omeara.brian@gmail.com

UTexas ElPaso 3yr CollectionsManager

POSITION DESCRIPTION COLLECTION MANAGER

Location: University of Texas at El Paso, El Paso, TX, USA Department: Biological Sciences Title: Natural History Collection Manager Classification: Academic staff, exempt Position Duration: 3 years, commencing no later than January 30, 2016 Salary: \$37,277/year + benefits Supervisor: Dr. Eli Greenbaum, Director, UTEP Biodiversity Collections Posting: <http://admin.utep.edu/Default.aspx?tabid=73912> (Job ID:

2384)

The collection manager for the University of Texas at El Paso Biodiversity Collections (UTEP-BC, natural history collections) will administer a world-class collection of specimens. The collections consist of fluid-preserved specimens, study skins, herbarium specimens, invertebrate collections, Cenozoic fossils, frozen tissues, wet and dry skeletons, acoustical recordings, digital and film-image archives, and extensive library holdings. The collections have an historical strength in Chihuahuan desert extant and extinct invertebrate and vertebrate specimens, and recent collections have focused on this region, Central and South America, and Central Africa. University curators and students, and national and international scholars use the collections extensively for research and education. The collections manager is responsible for day-to-day activities in the collection and reports to the director.

Duties: 1. Collections management and conservation (40%)
 • Develop and maintain collection database (Arctos), including data migration from other computer programs to Arctos
 • Ensure long-term integrity and preservation of collections and collection-storage environment.
 • Maintain and improve collection-care protocols.
 • Maintain and organize records of collection activity, use, and status for annual reports, grant submittals, and other documentation.
 2. Acquisition and collection development (10%)
 • Oversee the preparation and staging of newly acquired specimens for their integration into the collection.
 • Organize and prepare documentation necessary for specimen accession, including national and international permits and associated documentation.
 • Electronically catalog specimens and their associated information.
 • Participate in acquisition of specimens for the UTEP-BC by facilitating donations and by occasional fieldwork and expeditions at the direction of the curatorial staff.
 3. Museum operational service (30%)
 • Process all specimen loans, exchanges, and gifts; incorporate received specimens into the collection; maintain appropriate records of such activities.
 • Collaborate with curators to plan and implement divisional goals, priorities, and programs.
 • Collaborate with other museum collections managers to achieve high quality collections care and economy of scale in all collections-related activities.
 • Work proactively to place specimens from the UTEP-BC collection into the hands of qualified researchers for study.
 • Assist and supervise users of the collections.
 • Respond to inquiries from scientists, governmental and consulting agencies, the public, and other users.
 • Participate in the museum's public programming by providing information and specimens and assisting in exhibit design; assist in museum public functions.

Conduct tours for visiting scholars, students, and the public.
 4. Supervision (10%)
 • Hire, train, and supervise undergraduate assistants.
 • Train and supervise volunteers working in the collection.
 5. Professional development (5%)
 • Work closely with the curators to ensure consistency of practice.
 • Participate in collection management training and development through professional societies.
 • Undertake research in area of expertise when not in conflict with collection management duties.
 • Participate in professional scientific societies.
 6. Other duties as appropriate. (5%)

Required qualifications: - A Master's degree or Ph.D. from an accredited university in museum studies, systematics, botany or invertebrate/vertebrate zoology or bachelor's degree plus a minimum of 2 years experience working with museum collections in a position with similar responsibilities.
 • Familiarity with biodiversity informatics, including the database Arctos, web-based applications, and distributed networks.
 • Demonstrable knowledge of care and management of natural history collections, with a special emphasis on preventative conservation, collection-

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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>

UVirginia EvoDevo

Ivy Foundation Pratt Distinguished Professorship in Morphogenesis Department of Biology, University of Virginia

The Department of Biology at the University of Virginia is searching for an exceptional scientist to fill the endowed Ivy Chair in the area of Developmental Biology. The Department of Biology and the School of Medicine have a distinguished history and strong presence in this and related disciplines and the University of Virginia is consistently ranked among the best public universities in the United States.

The Ivy chair was established to enhance the overall strength in modern disciplines associated with Developmental Biology and we expect the holder of the chair to be an intellectual leader in this area with an outstanding record of innovative research, whose interests will complement and synergize with existing strengths

in both the Department of Biology and the School of Medicine. The Department of Biology is broadly based with particular strengths in Developmental Biology, Cell Biology, Neurobiology and Evolution, and together with the school of Medicine we also have a community with extensive interest and strength in regeneration and stem cell biology. We invite applications from scholars who have made significant contributions to Developmental Biology, broadly defined, including those with complementary research foci connected to one of the areas noted above.

This endowed chair will be at the rank of Full Professor with tenure; promotion from the Associate rank will be considered for qualified candidates. In addition to being a distinguished research scientist the successful candidate will have the interest and ability to provide scholarly education to our talented undergraduate and graduate students, and mentor junior faculty.

Additional information about the Biology Department and the Cell and Developmental Biology research groups associated with the School of Medicine Biomedical Sciences Graduate program can be found at www.virginia.edu/biology and <http://bims.virginia.edu/research-discipline/cell-developmental-biology/> respectively.

Candidates must apply through Jobs@UVa (<https://jobs.virginia.edu>) and electronically attach a cover letter stating interest in the position, along with a CV, statement of research interests and statement of teaching philosophy; search on posting number 0617550. Letters of reference will be discreetly solicited later in the application process.

For further inquiries or referrals, please contact Robert Grainger at rmg9p@virginia.edu. The search will be carried out with full confidentiality. The Search Committee will begin reviewing applications on November 27, 2015, but will continue to review applications until the position is filled.

The University will perform background checks on all new faculty hires prior to making a final offer of employment.

The University of Virginia is an equal opportunity/affirmative action employer committed to developing diversity in faculty and encourages applications from women, minorities, veterans and persons with disabilities.

“bbrodie@virginia.edu” <bbrodie@virginia.edu>

UWyoming ModelingEvolution

The University of Wyoming seeks to hire a tenure-track faculty member with expertise in modeling ecological or evolutionary processes. The appointment will be at the assistant professor level in the Department of Botany. Minimum requirements include 1) a Ph.D. at the time of appointment; 2) a demonstrated ability for developing and maintaining a strong, extramurally funded research program; and 3) a commitment to high-quality undergraduate (incl. in the Life Sciences Program) and graduate teaching. We prefer candidates with

1) postdoctoral experience whose research uses cutting-edge computational statistical methods and high performance computing to understand evolutionary or ecological processes that are strongly connected to plant biology, and

2) whose demonstrated expertise includes analytical methods and biological knowledge that will enhance programs at the university.

Beyond departmental programs, relevant campus resources include: interdisciplinary Ph.D. programs in Ecology and in Hydrologic Science, undergraduate program in Earth System Science and minor in Computational Science, Biodiversity Institute, Advanced Research Computing Center, NCAR-Wyoming Yellowstone Supercomputer, and Stable Isotope Facility. Salary and start-up packages will be competitive. Candidates should email a curriculum vitae and descriptions of research plans and teaching philosophy and contact information for three references to Mr. Rick Matlock at rixdogs@uwyo.edu. PDF formatting is required for these documents. Any questions can be directed to the search committee chair, Dr. Brent E. Ewers at beewers@uwyo.edu. Screening of applications will begin on November 28th, 2015 and continue until a suitable candidate is identified. The University of Wyoming is committed to diversity and endorses principles of affirmative action. We acknowledge that diversity enriches and sustains our scholarship and promotes equal access to our educational mission. We seek and welcome applications from individuals of all backgrounds, experiences, and perspectives.

Rick Matlock <Rixdogs@uwyo.edu>

ZSL London SupportTech

Position: Senior Technician (Full-Time / Permanent)
 Salary: £32,694 per annum (Inclusive of London Weighting) Location: ZSL Institute of Zoology - NW1

About Us: The Zoological Society of London (ZSL), a charity founded in 1826, is a world-renowned centre of excellence for conservation science and applied conservation. ZSL's mission is to promote and achieve the worldwide conservation of animals and their habitats. This is realised by carrying out field conservation and research in over 50 countries across the globe and through education and awareness-raising at our two zoos, ZSL London Zoo and ZSL Whipsnade Zoo, inspiring people to take conservation action.

Overview of role: The Institute of Zoology, the research arm of the Zoological Society of London, affiliated to University College London, invites applications for a Senior Laboratory Technician to provide general support for research across the organisation. The jobholder will also provide hands-on laboratory work which will include assistance for genetic and genomic projects, experimental design, methodology selection and troubleshooting. The successful candidate will also provide training to visitors, students and research staff in molecular techniques and use of laboratory equipment. They will be responsible for assisting the Chief Technician to manage many aspects of a research laboratory, including safety, maintenance of equipment, waste disposal and general duties.

Main responsibilities will include:

- . Providing molecular technical and analytical assistance in relation to laboratory based research across the organisation including: assistance for genetic/ genomics projects, experimental design and methodology selection.
- . Providing training to visitors, students and research staff in molecular techniques and use of laboratory equipment including: advice relating to research projects in respect of molecular biology, training in the use of laboratory equipment.
- . Providing support for chief technician as and when required and assist with general laboratory management including induction of new staff Including: Maintenance

of laboratory equipment, check availability of communal consumables, organisation of freezers space, washing up of lab glass and plastic ware, disposal of hazardous lab waste.

The successful candidate will have:

- . Higher degree in a relevant science subject (such as evolutionary biology) or equivalent qualification.
- . Experience of working in a genetic / genomic laboratory and good knowledge of:

- o DNA/RNA extractions.
- o PCR, qPCR, RT-PCR.
- o Preparation of genomic libraries for next generation sequencing.
- o Operation and maintenance of the Illumina MiSeq.

- . Experience of working in a cell/tissue culture laboratory.
- . Knowledge of Sanger sequencing and bioinformatics will be desirable.
- . Good understanding of population genetics and related analysis software.
- . Good organisational and communication skills.
- . Advanced skills in using MS office packages

This is a fantastic opportunity for an evolutionary biologist looking for employment in a non-for-profit international organisation. You will have exposure to a variety of departments and people who have a passion for Animal Conservation. If you have the imagination to not only problem solve but create new opportunities to support the Institute of Zoology department within ZSL, then we would love to hear from you.

To Apply: Applicants will need to upload their CV and covering letter (detailing relevant experience and skills, stating why they want the position and including details of availability) and can do this by clicking the "Apply for this job online" button on the following link: https://careers-zsl.icims.com/jobs/1080/-senior-technician/job?in_iframe=1 Closing Date: Midnight Sunday 22nd November 2015.

For an informal discussion about the post, please contact Dada Gottelli on Tel: 0207 449 6635 or best email at Dada.Gottelli@ioz.ac.uk The Zoological Society of London is a charity registered in England and Wales: no. 208728.

Aaron Thomas HR & Recruitment Officer Zoological Society of London Regent's Park, London, NW1 4RY T: 02074496253 E: aaron.thomas@zsl.org W: www.zsl.org The Zoological Society of London is a charity registered in England and Wales: no. 208728.

Aaron Thomas <Aaron.Thomas@zsl.org>

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Austin Hughes obituary

With heavy hearts, and on behalf of his former and current trainees, we would like to inform our community that Dr. Austin Leland Hughes, most recently a Carolina Distinguished Professor of Biological Sciences at the University of South Carolina, passed away suddenly on October 31, 2015. Best known for his work on the Major Histocompatibility Complex (MHC) and overdominant selection, he went on to describe the complexities of MHC evolution and also focused on the evolution of the immune system, viral evolution and many other topics. He co-authored over 300 peer-reviewed publications and two books. His contributions to the field of evolutionary genetics are truly invaluable. We will remember him for his razor-sharp mind, critical thinking and fierce loyalty to us and our careers.

Austin is survived by his wife, Andrea, children Helen and Austin, stepsons Harry and Patrick, and nine grandchildren.

Sincerely, Meredith Yeager Helen Piontkivska

“Yeager, Meredith (NIH/NCI) [C]”
 <yeagerm@mail.nih.gov>

CostaRica ResearchMentors

Hello all, I am posting on behalf of a colleague.

CALL FOR RESEARCH MENTORS NAPIRE: Native American and Pacific Islander Research Experience at Las Cruces Biological Station, Costa Rica Mentors needed between June 20th and August 3rd Application Deadline November 30, 2015

The Organization for Tropical Studies (OTS) is seeking Research Mentors (ABD or PhD only) for the Native American and Pacific Islanders Research Experience (NAPIRE) Program funded by the National Science Foundation’s Louis Stokes Alliance for Minority Participation (NSF LSAMP) at the Las Cruces Biological Station in Costa Rica. This is an exciting and highly rewarding research internship program for minority undergraduate students enrolled in accredited institutions in the United States and Pacific Island Territories.

The goal of the NAPIRE Program is to facilitate a successful summer research experience for Native American and Pacific Islander undergraduate students and, therefore, strengthen their interest and potential for pursuing careers in biology or environmental science. The program seeks to provide a quality, safe environment where students are motivated to learn scientific skills, such as: - Critical thinking, - Hypothesis building and testing, - Research design and sampling, - Statistical analysis skills, and - Scientific writing and presentation.

Mentors will live at the Las Cruces Station where they will provide personal, direct guidance in ecological research for one or two (typically) undergraduate students. Mentors will guide students as they work to develop an answerable research question, design their research goals and data collection methods, analyze data, and interpret and present results. In addition, mentors will also participate in symposia, evaluations, and ethics discussions.

Mentors do not receive honoraria, but NSF funds their transportation to and from Costa Rica, as well as room, board, station use, research permits, in-country transportation, and needed equipment and supplies. The Las Cruces Station offers excellent installations, logistics, and other conditions for long-term research projects in forest ecology, climate change, ecological restoration, habitat fragmentation, and other similar studies.

NAPIRE Mentors are needed between June 20th and August 3rd, 2016. Interested researchers should send a letter of interest and a short summary (max 250 words) of potential student research project(s). This summary will be used on the OTS website so that students can select their preferred mentors/projects in their applications. For researchers who have not previously served as mentors in the NAPIRE Program, please also provide a copy of your curriculum vitae and a statement of mentoring philosophy. To allow sufficient time for appropriate matches between mentors and accepted students, please send this information by no later than November 30th, 2015.

Applications should be sent electronically to Barbara Dugelby, Program Coordinator, at barbara@dugelby.com.

Andrés Santana Graduate Program Coordinator Organization for Tropical Studies San Pedro, Costa Rica. 676-2050 (506) 2524-0607 ext. 1511 Skype: andres.santana_otscro // twitter: [@ots_tropicaledu](https://twitter.com/ots_tropicaledu) <https://twitter.com/ots_tropicaledu> www.ots.ac.cr

andres.santana@tropicalstudies.org

DNA extraction from formalin-preserved samples

Dear Evoldir colleagues,

does anybody have experience with DNA extraction from (fish) samples preserved in formalin? And if yes, is there any hint or published protocol you would suggest?

But the main question is: what's the DNA quality one should expect? For which applications?

Thanks a lot in advance

Best Regards

Chiara Papetti (papetti.chiara@gmail.com)

papetti.chiara@googlemail.com

EBI survey

Dear Colleagues

I am forwarding an email from EMBL-EBI for a survey on bioinformatics database and tool usage. EMBL-EBI particularly would like to get responses from non-computational laboratory scientists. Please feel free to forward this as widely as you would like or to post it to bulletin boards etc.

Dear Colleague,

I am writing on behalf of the European Bioinformatics Institute (EMBL-EBI) to request your support in completing our annual survey: a series of 39 questions about how you use bioinformatics databases, tools, and resources. Your answers are important, as they help us better understand how our resources are used.

If you are a laboratory scientist, or if you only rarely (or never) use bioinformatics services, we still value your input! The more users tell us about their experiences, the better, so please feel free to forward this message to your colleagues.

The survey will take 15–20 minutes to complete, and it will close on Friday 29 November.

We really appreciate your participation in our annual survey, as we know you have many demands on your time. As a token of our appreciation anyone who completes the survey will have the opportunity to enter a drawing for one of six Raspberry Pi 2 computers.

Click here (or paste the link into your browser) to go to the survey: <https://www.surveymonkey.com/r/-GLD2TD8> Thanks very much, in advance, for your participation.

Sincerely,

Ewan Birney Director European Bioinformatics Institute (EMBL-EBI)

"goldman@ebi.ac.uk" <goldman@ebi.ac.uk>

EvoHack

Dear Colleagues,

We apologize if you have received this e-mail multiple times but we are trying to distribute it widely and thoroughly! Please feel free to pass it on to people you think may be interested.

We are inviting you to apply for the inaugural iDiv Science Hackathon (Groen and Calderhead, 2015, eLife). This year's theme is EvoHack: Evolution and Adaptation. We have three highly motivated, innovative young postdoctoral researchers leading teams in modeling, molecular mechanisms and bioinformatics, and phylogenetics and morphology. Have a look at their profiles on <http://evohack.org/>, where you will also find a video, the Groen and Calderhead reference, and more information on the hackathon. We are now looking for team members.

Please note: the team leads have suggested areas of expertise they feel would be helpful for their projects, but if you can make a case for your interest and potential contribution, we will consider your application regardless of your area of expertise. We aim for interdisciplinary teams.

What is EvoHack? Small groups, each comprising 4-5 scientists from different disciplines, assembled based on common interests and led by one motivated early-career researcher, will spend 3 days intensively working to solve a festering problem in evolution and adaptation research. This might involve e.g. re-analyzing old data in a new light, setting up a meta-analysis to test an important hypothesis, designing a new or renovated model, proposing a novel research structure or facility to fill a gap, or designing a new method. At the end of these 3 days, each team will have (1) a contribution to upload to BioRxiv.org which will be (2) the basis for a publication, grant proposal, or similar.

We invite applicants with diverse backgrounds, and in all stages of their careers. We will select a total of up to 13 researchers to join our three teams, based on participants' and team leaders' common interests. Teams will be organized beforehand, and some basic discussion should already take place before the Hackathon, but the magic (and the work) should happen during the three Hackathon days. The Hackathon will take place on December 4th-6th at Schloss Schkopau ([http://](http://schlosshotel-schkopau.de/)

schlosshotel-schkopau.de/), immediately following the iDiv conference.

The whole experience will cost a maximum of 30 Eur per participant, thanks to funding from iDiv!

Who can join? We will consider applications from all interested researchers, though preference may be given to iDiv members because this is an iDiv-funded event.

How can I apply? Please apply as soon as possible – the sooner we can organize teams, the sooner team members and leads can start thinking and dreaming big! Go to <http://evohack.org/> and fill out the registration form. In the area provided, please give us concise information about your motivation, expertise, and potential contributions. We will notify you about the status of your registration and if we can offer you a spot at the hackathon, we will suggest a team for you to join.

Thank you so much, and we look forward to engaging in groundbreaking biodiversity science together!

If you have any questions, contact Dr. Merry Schuman, leader of the iDiv/MPI-CE Project Group, at mschuman@ice.mpg.de or +49 157 591 612 61.

Yours, The organizing team, in alphabetical order: Nora Adam, Erica McGale, Merry Schuman, Henrique Valim

Dr. Meredith C. Schuman Leader of the iDiv-MPICE-Biodiversity project group Department of Molecular Ecology Max Planck Institute for Chemical Ecology Hans-Knöll-Straße 8 07745 Jena Germany

Office: +49 3641 571116 Mobile: +49 157 591 612 61 URL: <http://www.ice.mpg.de/ext/hopa.html?pers=mesc3399&d=itb&li=ice&pj=home> “Meredith C. Schuman” <mschuman@ice.mpg.de>

Field Evolution Podcast

Hello,

Would you like to participate in an Art and Science Evolution Podcast? Through funding from the European Society for Evolutionary Biology, we are creating a podcast series about major themes of evolution.

It is very difficult for modern humans to simultaneously grasp their insignificance in the evolutionary tree of life, and their tremendous significance with respect to influencing the course of evolution. This fundamental misconception lies at the heart of what has led us to the precipice of another mass extinction event on Earth.

Ode to Evolution is a five episode podcast series, that uses a storytelling approach to relate key concepts in evolution. Each podcast will follow scientists exploring evidence for evolution via examples of current research in the field of Evolutionary Biology, accompanied by 1-2 minute animated videos, and lesson plans for adaptation in schools. Offering the public a deep perspective of the scale of evolution and the human relationship with life on earth, Ode to Evolution provides a valuable perspective at a critical moment in history.

We are looking for volunteers, going to the field in the near future, that would be willing to take a sound recorder (about the size of a pack of cards) with them. We are asking volunteers to record sounds of the place you do research and then answer 10 questions about evolution from the field. All in all, a time commitment of about 30 minutes total.

If you're interested, please email us so we can give you some more information and schedule you time with one of our recording devices.

info@islandsseas.org

Thanks, Lauren & Kat info@islandsseas.org

info@islandsseas.org

Genomics Research Grant

Hi All,

Are you working on a research project that involves genomes (human, plant or animal) or genetic analysis of any kind? If you need more funding to fuel your work, consider joining Instrumentl < <https://www.instrumentl.com/#Genomics> >'s Genomics Challenge*! Instrumentl is pleased to announce that DNAnexus < <https://www.dnanexus.com/> > has partnered with us to power this Challenge, and together we're offering* \$1,500 in Research Grants *that can be applied to your overall crowdfunding campaign. DNAnexus is also offering *\$5000 in computational software*, which will be given out during a "Pop-Up Challenge" that will happen during Week 1 of the Genomics Challenge.

Register HERE < <https://www.instrumentl.com/#Genomics> > by entering your name and email by this *Friday, November 27th, at 11:59 pm PST *(however campaign materials are only due on December 11th)!

Read more about our partnership with DNAnexus here

< <https://medium.com/@BeInstrumentl/dnanexus-and-instrumentl-collaborate-to-fund-genomics-research-c5c641fed2c2#.m5ygoavq2> > .

Have questions? Read more about our Grant Challenges < <https://www.instrumentl.com/grant-schedule/> > or send me an email. I'm happy to answer questions.

Good luck!

Katharine

– Katharine Corriveau Co-founder/COO @ Instrumentl

Follow us on Facebook < <https://www.facebook.com/-Instrumentl> > and Twitter < <http://twitter.com/-BeInstrumentl> > Visit us at www.Instrumentl.com

Genoscope France Internship Zooplankton Genomics

Genoscope is the French National Sequencing Center, a research center specialized in the analysis of genomes, and member of the Tara Oceans consortium (<http://oceans.taraexpeditions.org/en/>). This consortium published recently five articles (<http://www.sciencemag.org/content/348/6237/873.full>) which gave a first insight into the biodiversity present in the oceans through massive sequencing of metagenomics samples. Although, the work accomplished improved significantly our knowledge on marine genomics of viruses, bacteria and protists, some organisms remain not investigated enough, especially those who belong to the zooplankton which represent a large fraction of the marine biomass.

We propose a 6 month internship to a highly motivated master student who wants to learn how to make biological sense out of high-throughput sequencing data in a competitive bioinformatic environment. The first goal of the internship is to learn how to perform large scale comparative genomic analysis of small zooplankton genomes and especially on the genome of the copepod *Oithona nana*. The student will identify the copepod genes involved especially in the biological development and in the response to environmental stresses. The second objective is to integrate the Tara Oceans metatranscriptomic and metagenomics data to follow the genomic diversity and the expression of the copepod genes in the different samples already sequenced at the Genoscope.

Required knowledge: genomics, biosynthesis pathways,

signaling pathways, marine biology

Required scripting skills: Perl/Python, Bash, R

Internship duration: 6 months

Remuneration: around 700 euros

contact:

Dr Mohammed-Amin Genoscope 2 rue Gaston Crémieux
91000 Evry

Email : amadou@genoscope.cns.fr

Validity : 31/12/2015

Link : <http://www.sfbf.fr/content/zooplankton-genomics-and-metagenomics> amin madoui
<amadoui@genoscope.cns.fr>

Madrid StarlingCamp Volunteers

Ornithology volunteers seeked: Starling Camp 2016

Between April and June 2016 we will run our yearly intensive research campaign in our starling colony, 50 kms from Madrid. Around 250 nest boxes are almost daily followed through the two sequential broods that most nests obtain. Field work includes capturing adult birds for measuring and sampling, follow-up of reproduction (egg laying, hatching and fledging), ringing nestlings, setting-up of microchip readers to assess parental care..., as well as other activities related to the specific experiments running in each year.

The field site is a pleasant and undisturbed woodland, an hour from Madrid. Several researchers, PhDs and master students take part in the field work, but to be able to run it properly, we count with the help of a few volunteers every year. We provide free accommodation for volunteers in a nearby field station, transport to and from the field site, and a fantastic team-work atmosphere. We are happy to consider volunteers for any periods of time starting from a minimum of 2 months.

<http://www.behavecol.es/en/opportunities/starling-camp-2016~10> Please contact us asap if interested in taking part in the 2016 campaign, attaching your CV and a short personal statement of your interests.

Diego Gil (diego.gil@csic.es) Museo Nacional de Ciencias Naturales, Madrid, Spain.

Diego Gil Departamento de Ecología Evolutiva Museo Nacional de Ciencias Naturales (CSIC) José Gutiérrez Abascal, 2 28006 Madrid Spain

Tel: 00 34 91 411 13 28, ext. 1141 Fax: 00 34 91 564 50 78

web site: www.behavecol.es Diego Gil
<diego.gil@csic.es>

NatHistCollection survey

Hello (and please excuse our cross-posting),

we encourage you to participate in a short survey that aims at improving the services at NATURAL HISTORY COLLECTIONS. We hope that understanding how the community perceives natural history collections and their roles and services will help collections to consolidate strengths, address shortcomings and adapt to current needs.

The survey encompasses 28 non-mandatory, multiple-choice questions and takes about 10 minutes to complete. Everybody interested in the topic is welcome to participate (anonymously). Results will be made available publicly, and you can furthermore enter your email address at the end of the survey in case you want to be informed on results. To take part in the survey, go to:

<https://de.surveymonkey.com/r/collectionsurvey2015>

The survey CLOSES on November 16, 2015. Thanks in advance for your time!

Hannah Schubert & Jonas Astrin Zoological Research Museum A. Koenig, Bonn, Germany Contact: collectionsurvey2015@gmail.com

"J.Astrin.ZFMK@uni-bonn.de" <J.Astrin.ZFMK@uni-bonn.de>

Phyloseminar SandrinePavoine Dec8

Comparing patterns in phylogenetic and trait diversity Sandrine Pavoine Muséum National d'Histoire Naturelle, Paris Tuesday, December 8, 2015, 8:00 AM PT

Studying the phylogeny led to the emergence of interdisciplinary approaches combining ecology, evolutionary biology and biogeography. The analysis of the phylogenetic relatedness among species complemented the analysis of the functional (trait-based) similarities among

species, and even sometimes replaced it when phylogenetic relatedness was considered as a proxy for functional similarity. The use of phylogenetic diversity as a proxy for functional diversity as been questioned due to the observation of moderate phylogenetic signal in many field studies. From a methodological viewpoint, a fundamental difference between phylogenetic and functional analyses is that phylogeny is intrinsically dependent on a tree-like structure whereas trait data can, most of time, only be forced to adhere a tree structure, not without some loss of information. I will discuss the ways phylogenetic and functional diversity patterns can be compared and the consequences of their simultaneous analyses for conservation and community ecology.

– Frederick “Erick” Matsen, Associate Member
Fred Hutchinson Cancer Research Center <http://matsen.fredhutch.org/> matsen@fredhutch.org

Questions Jackknives Homoplasy Adaptations

Dear Evoldir Listers:

Can a homoplasy be an innovation?

Background: Recently, I had a conversation with a colleague re. evolutionary innovations in the context of their potential associations with biodiversity. My first reaction was to say that, for the group in question, the trait was an inferred synapomorphy after which a great expansion of diversity can be documented. Yet, the colleague argued that, for the group in question, a homoplasy could also be an evolutionary innovation. Can a homoplasy be an innovation?

If you have an answer, please feel free to email me directly (blayj@si.edu). If you know of a better list venue to post this question, please do let me know.

Gratefully,

Jorge

Jorge A. Santiago-Blay, PhD <http://paleobiology.si.edu/staff/individuals/santiagoblay.cfm>
blaypublishers.com 1. Positive experiences for authors of papers published in LEB <http://blaypublishers.com/testimonials/> 2. Free examples of papers published in LEB: <http://blaypublishers.com/category/previous-issues/> . 3. Guidelines for Authors and page charges of LEB: <http://blaypublishers.com/archives/> .

4. Want to subscribe to LEB? <http://blaypublishers.com/subscriptions/>

<http://blayjorge.wordpress.com/> —

Dear Evoldir Listers:

Recently, I came across a paper that used jackknife re-sampling methods for phylogenetics. Some branches were supported > 95%; others < 95%, such as 89% or 86%. Are these values to be treated akin to those used in parametric stats, where typically >= 95% is considered a cutoff value of sorts?

If you have an answer, please feel free to email me directly (blayj@si.edu). If you know of a more biostatistically-oriented list, please do let me know so that I may consider posting the question there as well.

Gratefully,

Jorge

Jorge A. Santiago-Blay, PhD <http://paleobiology.si.edu/staff/individuals/santiagoblay.cfm>
blaypublishers.com 1. Positive experiences for authors of papers published in LEB <http://blaypublishers.com/testimonials/> 2. Free examples of papers published in LEB: <http://blaypublishers.com/category/previous-issues/> . 3. Guidelines for Authors and page charges of LEB: <http://blaypublishers.com/archives/> .

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Reptile SexRatioData

Request for data on sex ratios and sex-specific mortality in reptiles

For a comparative project, I am looking for data on sex ratios and sex-specific mortality rates from well-studied reptile populations. For sex ratios we need percentage of males out of all individuals (males plus females), and for mortality we are looking for annual mortality separately for males and females. Any of these data for either adults or juveniles are welcome (sex ratios and mortality rates are not simultaneously required for the data to be useful).

We appreciate data in the following structure: (i) Scientific name of the species (ii) Juvenile sex ratios (JSR) i.e. proportion juvenile males out of all juveniles (iii) Number of juveniles used to estimate JSR (iv) Adult sex ratios (ASR) i.e. proportion adult males out of all

adults (v) Number of adults used to estimate ASR (vi)
Method used to capture and mark animals

(vii) Time period used to estimate mortality rate

(viii) Coordinates (latitude and longitude) for the location of the population Please also include a reference for the source of the data.

Best wishes,

Ivett Pipoly

Ornithology Research Group University of Pannonia,
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University of Pannonia Tel.: +36 88 624249 Fax: +36
88 624747 pipoly.ivett@gmail.com +36 20 / 9236407

Ivett Pipoly <pipoly.ivett@gmail.com>

RoyalSociety SpecialIssues

We have published 3 titles of interest to EVOLDIR readers but more importantly this content along with ALL Royal Society content is FREE to access until the end of November.

They are - Within-host dynamics of infection: from ecological insights to evolutionary predictions, compiled and edited by Olivier Restif and Andrea LGraham - <http://bit.ly/PTB1675> and the articles can be accessed directly at <http://rstb.royalsocietypublishing.org/content/370/1675> The dynamics of antibody repertoires, compiled and edited by Sarah Cobey, Frederick A Matsen IV and Patrick Wilson - <http://bit.ly/PTB1676> and the articles can be accessed directly at <http://rstb.royalsocietypublishing.org/content/370/1676> The sociality-health-fitness nexus in animal societies, compiled and edited by Peter M Kappeler and Charles L Nunn - <http://bit.ly/PTB1669> and the articles can be accessed directly at <http://rstb.royalsocietypublishing.org/content/370/1669> Felicity Davie Royal Society Publishing T +44 20 7451 2647 <http://royalsociety.org> The Royal Society 6-9 Carlton House Terrace London SW1Y 5AG Registered Charity No 207043 [<http://downloads.royalsociety.org/Images/pubs350.png>] Join us as we celebrate 350 years of scientific publishing <http://royalsociety.org/publishing350>

Software BAMMv2 5 Diversification MajorUpdate

Dear all-

We announce the release of major updates to BAMM and BAMMtools, a Bayesian framework for the analysis of speciation, extinction, and trait evolution on phylogenetic trees. BAMM is available at <http://bamm-project.org> If you are currently using BAMM and BAMMtools, we strongly recommend switching to BAMMtools v 2.1 (now on CRAN) and BAMM v 2.5 (or higher), now on the project website. There are significant changes to the software, including several important bug fixes. There are also some changes to the use of the software.

We have also added a comprehensive explanation of the BAMM model, its assumptions, and the algorithm used for computing the likelihood: <http://bamm-project.org/likelihoodmodel.html> As we discuss, there are several important assumptions and unresolved issues involving the calculation of likelihoods for “rate shift” models. These issues are common to all methods that purport to compute the likelihood of phylogenetic trees with rate shifts and non-zero extinction rates and are not limited to BAMM. Several issues lack a clear theoretical resolution and we’ve flagged them prominently to hopefully inspire more attention from the community. The new release of BAMMtools includes an R-based likelihood calculator that computes the likelihood of diversification shifts on phylogenetic trees exactly as implemented in BAMM to enable users to compare BAMM likelihoods to those from other software implementations. We provide examples on the website showing how this function can be used to test whether the BAMM likelihood function is implemented correctly (<http://bamm-project.org/likelihoodmodel.html#testlikelihood>).

~Dan Rabosky

Dan Rabosky Museum of Zoology & Department of Ecology and Evolutionary Biology University of Michigan Ann Arbor, MI 48109-1079 USA

Dan Rabosky <drabosky@umich.edu>

SSB callProposals AustinTX DeadlineExt

The deadline for applying for funds to present a workshop has been extended to December 1st, 2015. See the opportunity description below for details:

The Society for Systematic Biologists is pleased to invite proposals to organize a one-day workshop at the 2016 SSB meeting in Austin, Texas from June 17-21st. The meeting will be held jointly with the American Society of Naturalists (ASN) and the Society for the Study of Evolution (SSE). The workshop will take place on the first day of the meeting (June 17th).

Proposals should include (1) a descriptive title, (2) one or two paragraphs explaining the purpose of the workshop and its relevance to systematics, (3) a list of presentations (minimum of 4) including proposed speakers, their institutions or affiliations, and their presentation titles, and (4) an indication of whether the speakers have been invited and whether they have agreed to participate.

SSB workshops are full-day events, but the structure is flexible and will be determined by the organizers. For an example, see last year's workshop at <http://2015nsfssbworkshop.weebly.com/schedule.html>. Topics may include any area related to systematics. The society is particularly interested in workshops that cover new theories or methods in the field and that lead to broader participation in systematics. We encourage the inclusion of a diverse group of speakers from multiple career stages. ****\$4000**** in funds will be provided to support the participation of workshop organizers/presenters. The venue will accommodate up to 60 participants.

The deadline for full consideration is December 1st, 2015. Proposals should be emailed (Word or PDF format) to the Program Chairperson, Stacey D. Smith, Stacey.D.Smith@Colorado.edu (Department of Ecology and Evolutionary Biology, University of Colorado, Boulder, CO, 80309-0334). Please use the subject heading: SSB Workshop Proposal. The program chair will confirm receipt of submitted proposals; please inquire if you do not receive email confirmation.

dewitt832@gmail.com

Systematics Research Fund

The call for the 2015/16 round of the Systematics Research Fund is now open.

The Councils of the Linnean Society of London and the Systematics Association jointly administer the Systematic Research Fund.

Typical activities supported include contributions to fieldwork expenditure, the purchase of scientific equipment or expertise (e.g. buying time on analytical equipment), specimen preparation (including the cost of temporary technical assistance), and contributions to publication costs (although we are unable to support article processing charges). Projects of a more general or educational nature will also be considered, provided that they include a strong systematics component. Typical activities not supported include attendance at scientific meetings and contributions to student maintenance or tuition fees. The fund does not provide payments for Bench Fees. Projects already substantially funded by other bodies may be disadvantaged.

Successful projects are selected by a panel of systematists who represent a wide range of conceptual interests and taxonomic groups. The value of any single award will not exceed A£1500.

The application form may be found at:

<http://www.systass.org/awards/srf.shtml> and

<http://www.linnean.org/The-Society/-awards.and.grants/Systematics+Research+Fund>

Please read the "Guidelines for applying for SRF funding" before completing the online application form. Please note that only applications made using the online form are acceptable.

Questions about the application procedure can be sent to Mark Carine (m.carine@systass.org).

Dr Mark Carine Plants Division, Department of Life Sciences The Natural History Museum Cromwell Road London SW7 5BD United Kingdom

Tel: 020 7942 5541

Mark Carine <M.Carine@nhm.ac.uk>

UKentucky REUSummerProgram2016

Research Experience for Undergraduates University of Kentucky Summer 2015 Suburban Ecology And Invasive Species

– 10 wk summer program, 31 May - 5 August 2016 for 10 students – Intensive research projects available on plants, insects, herps, and birds, in terrestrial or aquatic habitats – Mini-course and weekend field trips to areas of interest – \$5000 stipend, housing & an allowance for food provided – Applications due February 15, 2016

For more information and to apply, please visit: <http://darwin.uky.edu/~erec/reu/> Or contact David Westneat (david.westneat@uky.edu)

Jeremy Van Cleve

Assistant Professor Department of Biology University of Kentucky E-mail: jvancleve@uky.edu Webpage: <http://vancleve.theoretical.bio> Phone: (859) 218-3020

“jvancleve@uky.edu” <jvancleve@uky.edu>

UMelbourne VolFieldAssist AvianPersonality

Volunteer field assistant

We are looking for a field assistant to help monitor a colour-banded population of superb fairy-wrens near Melbourne, Australia, for a study on animal personality. Duties include mist-netting birds and conducting personality tests after the breeding season, censusing colour-banded birds, behavioural observations, video analysis, and data proofing. Working days can be long, with early starts six days a week. The volunteer should be an early riser, able to work in a variety of conditions, and enjoy basic shared accommodation. Enthusiasm, self-motivation, and a strong work ethic are a must. The study is based at Serendip Sanctuary, a small reserve on the outskirts of Melbourne.

Time period: From early January 2016 to March 2016.

Qualifications: Must be very experienced with mist-netting and banding small passerine birds; ideally also experienced at re-sighting small colour-banded birds.

Compensation: Free onsite accommodation in a house with shared dorm-style room is provided. Assistant to cover travel to the site and own food costs. The project will reimburse up to AUD\$750/mo towards receipted food and travel expenses.

Contact: For more information, email Michelle Hall (hall.mATunimelb.edu.au). To apply, please email a letter outlining previous relevant field research experience, and a resume including names and contact information for 3 referees that are familiar with your mist-netting and banding experience.

Dr Michelle L Hall Research Fellow School of BioSciences Building 147 (Old Zoology) University of Melbourne Melbourne, Vic, 3010 Australia Email: hall.mATunimelb.edu.au Web: <http://michellehall.wordpress.com/> “hall.m@unimelb.edu.au” <hall.m@unimelb.edu.au>

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AMNH NewYork Bioinformatics

Gerstner Postdoctoral Fellowships in Bioinformatics and Computational Biology

The American Museum of Natural History seeks highly qualified applicants for its Gerstner Postdoctoral Fellows program in Bioinformatics and Computational Biology. Successful applicants must be able to work effectively in applying innovative techniques to pursue independent and collaborative bioinformatics and computational research in integrative studies of genomics or spatial bioinformatics or biodiversity informatics, alongside faculty and other researchers interested in phylogenetics, phylogeography, evolutionary studies, and phenomics (the use of high-throughput computational methods to analyze morphological, physiological, and other phenotypic form and function). Fellows will also participate in the design, development and implementation of new algorithms, bioinformatics tools and infrastructure and computational methods to facilitate genomic assemblies and analyses, as well as developing methods to catalyze ongoing synthesis of phylogenetic information and address

âbig data' issues from a computational perspective.

A portion of each Fellows' efforts also will include: 1) teaching, training and workshops, 2) research collaboration with and assistance to faculty, postdoctoral fellows, students, and other Museum colleagues in accessing computation resources, including data storage, retrieval, and assembly; and 3) maintaining software and related resources.

The initial appointment will be for one year, potentially renewable for one to two additional years based on performance.

Requirements: Applicants must have a PhD in Biological Sciences, Bioinformatics, Computational Biology, Computer Science, Molecular Biology, Genomics, or a related discipline, with experience in computational biology, bioinformatics, creating databases and computational pipelines, and analysis of large biological data sets. Proficiency in programming and scripting required (ideally Python, Perl, and R), and familiarity with other languages, such as mysql, C++/C, or Java, is desirable. For bioinformatics and computational biology tool development, candidates should have documented skills in various areas of expertise, such as next-generation sequence processing (quality screening and error correction), de novo and reference guided assembly for non-

model eukaryotic whole genomes and transcriptomes, read mapping, gene annotation and discovery, and/or processing phenomic, transcriptomic, and phylogenomic datasets. Experience in a bioinformatics setting and in operating and maintaining high performance linux/unix servers preferred. Candidates should have extensive research experience with a solid publication record, ideally with some experience in phylogenetic methods, and excellent interpersonal, writing and problem-solving skills.

Application: Applicants should submit the following materials electronically, preferably as PDF files, via a single email message to Gerstnerbioinfopostdoc@amnh.org

(Subject line: 2016 Gerstner Bioinformatics-Computation Postdoc: Your Name):

- 1) a cover letter in which you indicate your interest, experience, and qualifications for the position;
- 2) a 150-word summary abstract and a short (2-4 page) prospectus of the type of research project(s) and bioinformatics-computational biology tools you propose to develop during the postdoctoral appointment,
- 3) a Curriculum Vitae; and
- 4) PDF files of up to five recent publications, or other documentation of relevant accomplishments in bioinformatics/computational biology.

Applicants also must arrange for 2 academic reference letters to be sent by the due date to Gerstnerbioinfopostdoc@amnh.org (Subject line: 2016 Gerstner Bioinformatics-Computation Postdoc Reference Letter: Applicant Name).

DUE DATE: December 15, 2015

The American Museum of Natural History is an Equal Opportunity/ Affirmative Action Employer. The Museum encourages Women, Minorities, Persons with Disabilities, Vietnam Era and Disabled Veterans to apply. The Museum does not discriminate due to age, sex, religion, race, color, national origin, disability, marital status, veteran status, sexual orientation, or any other factor prohibited by law.

Beth G. Kneller, M.Ed.

Director of Administration Richard Gilder Graduate School The American Museum of Natural History 79th St. at Central Park West New York, NY 10024-5192

Tel. 212-769-5143 Fax. 212-769-5257

bkneller@amnh.org <http://rggs.amnh.org> Beth Kneller <bkneller@amnh.org>

Aperiomics Bioinformatics

APERIOMICS - Postdoctoral Fellow in Bioinformatics/Software Development

Aperiomics is a service company that conducts pathogen diagnostics through a novel combination of genomics and informatics. <http://www.aperiomics.com> Description: We are seeking a highly motivated postdoctoral fellow to join an early stage company and contribute to the successful outcome of an NSF SBIR Phase II award. This company provides next-generation sequencing services to various markets and is developing new data analysis tools for fast, robust metagenomic analysis of complex samples.

The postdoctoral fellow will work with a dynamic team to refine and optimize analysis tools and develop software to implement these tools for the purpose of detecting pathogens through metagenomic data from agriculture samples. The overall goal of this research is to refine and optimize analysis tools, as well as building a user interface and visually-rich digital report for internal use.

Desired Knowledge: Applicants must possess: - PhD in a relevant discipline (Computer Science, Computational Biology, Bioinformatics preferred but related fields in Microbiology, Mathematics, Statistics, with programming experience are acceptable) - Strong experience in bioinformatics, metagenome data analysis, and an understanding of the key issues and relevant tools in the field. - An understanding of statistics is essential. - Strong quantitative background and good programming skills (e.g., Python, R, C) are all required. - Cross-disciplinary and strong analytical skills. - Broad experience using computational methods, databases, software, and hardware.

Preference given to applicants with experience with DNA and RNA extraction, library prep, and sequencing methodologies.

The NSF funding opportunity supporting this position is committed to having a diverse community of postdoctoral research scholars and we encourage applications from qualified individuals who may meet the NSF diversity criteria (women, persons with disabilities, African Americans, Hispanics, American Indians, Alaska Natives and Pacific Islanders).

To apply follow this link: <https://nsfsbir.asee.org/jobs/>

704 Please direct inquiries about this position to:

Crystal R. Icenhour, PhD CEO, Aperiomics cicenhour@aperiomics.com

ArizonaStateU TermiteProtistEvolution

Postdoc: termite protist evolution

The Gile Lab in the School of Life Sciences at Arizona State University seeks a Postdoctoral Researcher to study the diversity and evolution of microbial eukaryotes from termite hindguts. The termite-protist digestion symbiosis began in an ancient ancestor of termites and has persisted over 175 million years to the present day. In that time, several lineages of protists have diversified and become large and morphologically complex. The overall evolutionary pattern of the symbiosis is of vertical inheritance punctuated by occasional lateral transfers of protists, with protists out-speciating their hosts by approximately 5:1. We are interested in evolutionary rates, speciation, morphological convergence, and instances of lateral transfer of symbionts among termite host species. Research duties may include, but are not limited to, field collection, metagenomic and community-wide amplicon sample preparation for sequencing, assembly and analysis of next-generation sequence data, phylogenetic analysis, and biochemical pathway analysis. Opportunities will be provided for conference travel and networking.

Applicants must have a PhD in biology, microbiology, ecology, or other relevant discipline, excellent communication and interpersonal skills, and a strong publication record. Candidates with bioinformatics skills and expertise in microbial community analysis, phylogenetics, or population genetics are preferred. The fellowship duration will be three years, contingent on satisfactory performance (assessed yearly) and continued availability of funds. Interested applicants should provide a brief (one page) cover letter, CV, and three letters of support sent directly from referees. Send application materials to ggile@asu.edu.

Initial review of applications will begin on January 4, 2016. Applications will be reviewed every two weeks until the search is closed. Start date is flexible but ideally no later than June 30, 2016. A background check is required for employment. Arizona State University is an equal opportunity/affirmative action employer committed to excellence through diversity. Women and

minorities are encouraged to apply. For additional information on this position and the School of Life Sciences, please visit <https://sols.asu.edu/resources/employment>.

Gillian Gile Assistant Professor School of Life Sciences Arizona State University 427 E Tyler Mall, LSE 607 Tempe, AZ 85287-4501 USA office: 480-727-4761 lab: 480-727-4295 fax: 480-965-6899

“ggile@asu.edu” <ggile@asu.edu>

BangorU FreshwaterEnvDNA

Understanding the ecological relevance of eDNA in freshwater lotic ecosystems

We are looking for a dynamic researcher to fulfil a leading role in a new, collaborative and multidisciplinary team working at the leading edge of environmental DNA (eDNA) analyses in order to advance our knowledge of the ecological relevance of eDNA in freshwater systems (<http://mefgl.bangor.ac.uk/news/4-y-24937>). Molecular biodiversity identification is emerging as a high throughput and cost effective alternative to traditional approaches and in particular, the analysis of 'free' environmental DNA (eDNA) provides an opportunity to measure biodiversity in space and time at unprecedented scales. Understanding how sources of eDNA relate to living biodiversity, land use and associated ecological function are focal aims of the project.

The 4 year, £1.25M project led by Si Creer (<http://mefgl.bangor.ac.uk/staff/si.php>) is funded by the first round of NERC Highlight Topic funding (<http://www.nerc.ac.uk/research/portfolio/strategic/topics/>) and features collaborations with Cardiff University (Isabelle Durance; Steve Ormerod), the NERC Centre for Ecology and Hydrology (Jack Cosby, Bridget Emmett) and the Birmingham Joint Centre for Environmental - Omics (JCEO - John Colbourne). The project will utilise novel molecular ecological workflows, including genomic approaches to assess biodiversity, employing bioinformatics/ecological modelling and working with a large team of collaborators and an international steering committee comprising leading representatives from the field of eDNA (including David Lodge, Mike Pfrender, Pierre Taberlet, Holly Bik, Peter Kille, Kristy Deiner and Xin Zhou), end-users and stakeholders.

Candidates should possess a doctoral degree in related areas such as natural sciences, ecology, evolu-

tion/genomics and should have previous experience of fieldwork, molecular ecology, high throughput sequencing, bioinformatics and modelling. A driving licence, fieldwork skills, excellent team working and communication skills are essential. The successful candidate (£31,656 - £37,768 pa; Grade 7) will be expected to commence in January 2016, or as soon after as possible. Applications will only be accepted via the on-line recruitment website (jobs.bangor.ac.uk). However, in cases of access issues due to disability, paper application forms are available by telephoning +44 (0) 1248 383865.

Closing date for applications: 8th December, 2015 with interviews scheduled in the first week of January

Please contact Si Creer (s.creer@bangor.ac.uk; <http://mefgl.bangor.ac.uk/staff/si.php>) in the first instance, copied to Mark De Bruyn (markus.debruyne@gmail.com) and Gary Carvalho (g.r.carvalho@bangor.ac.uk) for further information.

About MEFGL Bangor The MEFGL (<http://mefgl.bangor.ac.uk/index.php.en>) is one of Europe's largest research centres focusing on population, species and community diversity of aquatic animals. Bangor is located in North West Wales, UK, situated in an area of outstanding natural beauty between Snowdonia National Park and the sea, providing an opportunity for a very high standard of living amongst a spectacular natural environment. International links are facilitated easily via both Liverpool and Manchester airports and London is just over 3 hours away via high speed trains.

Simon Creer

Senior Lecturer Molecular Ecology and Fisheries Genetics Laboratory School of Biological Sciences Environment Centre Wales Bangor University Gwynedd LL57 2UW

Tel: +44(0)1248 382302 Fax: +44(0)1248 382569

web: <http://mefgl.bangor.ac.uk/si.php> Skype: spideycreer Twitter: @spideycreer

Rhif Elusen Gofrestredig 1141565 - Registered Charity No. 1141565

Simon Creer <s.creer@bangor.ac.uk>

Barcelona InsectEvoDevo

Postdoc position

Origin of insect metamorphosis: dissection and evolution of the metamorphic gene toolkit

Our research objective:

Insects have undergone radical evolution in their development since their origination from arthropod ancestors, such that three types of metamorphosis have emerged: ametaboly, hemimetaboly and holometaboly. These three forms of metamorphosis represent an evolving sequence from the primitive ametabolous (direct-developing) to hemimetabolous (incomplete metamorphosis) to the most derived holometabolous type of metamorphosis (complete metamorphosis). Unfortunately, the nature of the changes underlying the appearance of Holometaboly remains a puzzling problem in evolutionary and developmental biology. To this aim, the main goal of the EvolMeT project is to characterize the molecular mechanisms underlying the origin of complete holometabolous metamorphosis.

Eligibility

The successful applicant will hold a PhD in the biological sciences with a strong background in *Drosophila* genetics, and/or developmental biology. A proven experience in molecular biology, and genetics is essential. Microscopy techniques are desirable although not essential. We are looking for highly motivated applicants that feel comfortable undertaking the challenges of learning new experimental techniques. You must have excellent scientific communication, presentation and writing skills, as well as very good critical and analytical problem solving skills.

Conditions

We offer a contract for 12 + 12 months, starting ideally by 01/01/2016. This position may be further extended, subject to satisfactory progress.

We offer an exclusive working environment in a modern research institute with an excellently equipped laboratory. The Institute of Evolutionary Biology (Spanish Research Council-Pompeu Fabra University) (see <http://www.ibe.upf-csic.es/>) is located in Barcelona's seafont, adjacent to the Biomedical Parc of Barcelona (PRBB) and Hospital del Mar. The candidates will join the EvoDevo Lab (PIs: Xavier Franch-Marro, David Martin

and Elena Casacuberta).

If interested, please apply by sending a cover letter that describes the motivation to work on the project, a CV with detailed technical experiences, and contact information for at least two academic references as PDF files to elena.casacuberta@ibe.upf-csic.es, xavier.franch@ibe.upf-csic.es, david.martin@ibe.upf-csic.es. Application can be in Catalan, Spanish or English. Web page of the Evo-Devo lab is under construction.

Elena Casacuberta, PhD CSIC Scientist Institute of Evolutionary Biology IBE CSIC- Pompeu Fabra University (UPF) Passeig Marítim de la Barceloneta, 37-49. E-08003 Barcelona (Spain) Tel: 34 932309637 elena.casacuberta@ibe.upf-csic.es

Elena Casacuberta <elena.casacuberta@ibe.upf-csic.es>

BordeauxU Bioinformatics

Here attached a post doc proposal in bioinformatic.
 WHERE: EA Enology Bordeaux University FRANCE
 WHAT: Post doc position for 18 months in Bioinformatics
 DESCRIPTION:

Comparative genomics of industrial wine yeast.

Position: Postdoctoral or engineer in bioinformatics

Location: Oenology lab, University of Bordeaux-IRNA-IPB, ISVV 210 Chemin de Leysotte 33882 Villenave d'Ornon, France.

Funding: Région Aquitaine (Collaborative project with the Biolaffort company).

Duration: 18 months

Estimated gross salary: 2400 €

Deadline for application: 15 december 2015

Expected startup: January 2016.

Proposed work: The microbiology team of the enology laboratory investigates the molecular determinism of wine microorganisms adaptation such as yeast and bacteria. By using QTL mapping approaches and comparative genomics we have identified several natural genetic variations explaining the phenotypic discrepancies observed within the *Saccharomyces* genus. In order to better understand how industrial yeast starters are adapted to winemaking, we are sequencing a large set of wine starters (Illumina PE 300 bp, >100X coverage) and

we aimed to analyze their genomes differences at different levels (SNP/small INDEL, LOH, gross chromosomal rearrangement/CNV). The candidate will setup a local bioinformatics server (galaxy) and implement existing bioinformatics tools for analyzing and visualizing the genetic variability of wine yeast. Several achievements are expected:

- Installation of a local galaxy server.
- Implement a workflow for raw sequencing data (Illumina and proton)
- Implement a workflow for SNP calling and CNV.
- Implement a workflow for de novo analysis and chromosomal rearrangement identification
- Implement a genome browser
- Transferring the tools to the other members of the lab

These tools will support various ongoing programs in the laboratory including QTL mapping and sequence analysis of clones obtained by directed evolution. Once the tools were implemented, the candidate will focus its investigation on the impact of industrial propagation by comparing the genome of various strains before and after industrial production.

Skills required: PhD in bioinformatics or a bioinformatics engineer with a professional experience >2-years. Autonomy, organizational skills and ability to interact with the others lab members and to transfer developed tools. Good oral and written English skills are required

Please submit a motivation letter, a detailed CV (including a list of publications) and the names and emails of two references for the application.

Philippe MARULLO, HDR

EA. ISVV 210 chemin de Leysotte 33882 Villenave d'Ornon philippe.marullo@u-bordeaux.fr 06 71 52 94 32/05 57 57 58 64

Lab references: <https://www.researchgate.net/profile/Philippe-Marullo> philippe.marullo@u-bordeaux.fr

CornellU QuantitativeGenetics

Cornell_University_Quantitative_Genetics

Use quantitative modeling to predict functional alleles with fitness consequences.

Summary: Leading quantitative genetics lab at Cornell University is looking to hire four postdocs with a background in computational modeling, bioinformatics of genomic and molecular data, and/or statistical genetics.

We are looking to hire four researchers with a background in machine learning, bioinformatics of genomic and molecular data, and/or statistical genetics. Strong skills in computer programming and modeling are necessary. Researchers with experience in human, animal, and other model organisms and evolution are especially encouraged to apply.

Join Ed Buckler and his group at Cornell University and help develop models based in genomics, molecular biology, and large-scale field evaluations to predict fitness consequences of mutations. We have a history of bridging quantitative genetics and genomics and applying this knowledge to improving crops with the aim of reducing hunger and environmental impact. Crop genomics is at a key moment, where the technologies to design crops have never been more powerful (genomic selection and genome editing). However, to effectively apply these technologies, we must first improve our capacity to predict the functional consequences of deleterious and adaptive alleles so that candidates can be developed. We are looking for researchers wanting to tackle these important problems.

The four specific efforts we are focused on are: (1) Basic research to identify the deleterious mutations in the maize genome. This research will help address the basis of dosage, heterosis, and crop yield. (2) Developing genomic breeding models and compare the genetic architecture of the maize, wheat, rice, chickpea, and sorghum. These models will be used to by global breeding efforts in the developing world. (3) Developing system based models in Sorghum that integrate genetic variation and detailed physiology. (4) Data mining to prediction adaptive and deleterious mutations in cassava - a key crop for food security in Africa.

Interested candidates should submit a cover letter and CV to Sara Miller at sjm336@cornell.edu.

Qualifications: Ph.D. in Biology, Bioinformatics, Computer Science, Genetics, or related field.

“Sara J. Miller” <sara.miller@cornell.edu>

CUNY NewYork EvolutionAdaptation

Brooklyn College - CUNY Research Associate (Post-Doctoral Fellow) - Biology CUNY Job ID: 13931

The Brooklyn College Department of Biology seeks applications for a research Associate (Post-Doctoral Fellow) who will assist the Principal Investigator with research activities in evolutionary biology, and work with student researchers. The Principal Investigator’s research uses computation and theory to explore how complex adaptations evolve.

Under the mentorship and guidance of the Principal Investigator, the Research Associate (Post-Doctoral Fellow) will perform the following duties: - Develop plans, and collect and analyze data based on projects prepared by the Principal Investigator. - Prepare reports of completed projects for publication in scientific journals, academic presentations or for further applied or theoretical research activities. - Develop, plan and conduct new research projects. - Provide administrative support to the Principal Investigator including, but not limited to: managing laboratory budgets and ordering supplies. - Maintain laboratory computers and research equipment for accurate operation. - Train and supervise undergraduate and graduate researchers.

Potential projects include: - Extending a model of stochastic gene networks to answer evolutionary questions about plasticity and evolvability - Applying math and computation to understand adaptation on fitness landscapes, with applications to evolution experiments. - Modeling virus life-histories to make predictions about host shifts.

For more information, please contact the Principal Investigator, Dr. Jeremy Draghi, at Jeremy.Draghi21@brooklyn.cuny.edu or visit www.jeremydraghi.com . *This appointment is for one year and, any reappointment is contingent upon satisfactory performance and financial availability.

MINIMUM QUALIFICATIONS Doctoral Degree in a related field and demonstrated research ability.

OTHER QUALIFICATIONS - Published research in

evolutionary biology. - Experience with one or more programming environments, especially C, R, and Mathematica. - Experience with the mathematical analysis of models. - Outstanding communication and writing skills. - A history of successful collaborative work and mentoring.

COMPENSATION \$44,849; All appointments are subject to financial availability.

BENEFITS CUNY offers a comprehensive benefits package to employees and eligible dependents based on job title and classification. Employees are also offered pension and Tax-Deferred Savings Plans. Part-time employees must meet a weekly or semester work hour criteria to be eligible for health benefits. Health benefits are also extended to retirees who meet the eligibility criteria.

HOW TO APPLY Applicants must upload their cover letter (referenced Job ID # 13931), resume, and contact information (name, phone number and email address) for three references in rtf, doc or pdf format.

To apply, please visit www.brooklyn.cuny.edu/adminjobs.

For more information, please visit www.jeremydraghi.com. To apply, please visit www.brooklyn.cuny.edu/adminjobs. CLOSING DATE December 19, 2015

EQUAL EMPLOYMENT OPPORTUNITY We are committed to enhancing our diverse academic community by actively encouraging people with disabilities, minorities, veterans, and women to apply. We take pride in our pluralistic community and continue to seek excellence through diversity and inclusion. EO/AA Employer.

Jennifer Tsui <JTsui@brooklyn.cuny.edu>

Debrecen Hungary PDF PhD SexRatioEvolution

Breeding system variations in vertebrates: the significance of adult sex ratio

To continue a successful research programme on sex ratios, mating systems and parental care, we are recruiting a post-doctoral researcher and a PhD student. Both positions are available from 1 January 2016 and will be funded for 3 years. The project is based at Debrecen University, Hungary (<http://www.unideb.hu/portal/en>). The positions are funded by the Hungarian Scientific

Research Fund (OTKA).

PROJECT SUMMARY The evolution and diversity of breeding systems are among the most fascinating aspects of behavioural biology. During the last couple of years, our group has discovered that mating system and parental care are influenced by adult sex ratio (ASR or tertiary sex ratio, the proportion of males in the adult population) in birds: the rarer sex in the population has more favourable mating opportunities (and more reluctant to provide care) than the more common sex. In this new project we are looking to continue this successful line of research and extend it to vertebrates in general, including mammals, reptiles, amphibians and fishes. We will focus on major questions in an explicit phylogenetic framework, by using phylogenetic comparative analyses based on data in the literature. We expect that the analyses, which will cover over 500 million years of evolutionary history, will reveal fundamentally novel patterns underlying the ecological, demographic and genomic causes of ASR variation, as well as elucidate the relationship between ASR, mating systems and parental care evolution across vertebrates. This project will have implications for evolutionary biology, population demography and conservation biology, and may serve as a benchmark for understanding ASR variation in humans.

PRINCIPAL INVESTIGATORS Prof Tamas Szekeley (University of Bath, UK), Prof Andras Liker (Pannonia University, Hungary), Prof Zoltan Barta (Debrecen University) & Prof Robert F Freckleton (University of Sheffield, UK). The project will be based at the Dept of Evolutionary Zoology, Debrecen University (<http://zoology.unideb.hu/home/>).

RESPONSIBILITIES POST-DOC. The post-doc will carry out the major analysis and write publications on some of the main issues targeted by the project. We are seeking candidates with a PhD in evolutionary biology, behavioural ecology or population biology, excellent quantitative skills and ability to programme in R. Previous experience in phylogenetic and/or comparative analyses is advantageous but not essential. The post-doc will also oversee the PhD student's work on a daily basis, and coordinate data collection for the whole projects. His/her major tasks will include preparing manuscripts for publication, presenting seminars and research talks at conferences, and disseminating research results both nationally and internationally. Short visits to collaborating institutions (Bath, Sheffield) will be funded. The post-doc should be able to work independently on her/his own initiatives. Salary will be up to 400,000 HUF/month depending on experience (this figure is substantially higher than a normal post-doc salary in Hungary).

PhD STUDENT. The student will focus on sex ratios in certain vertebrate taxa (e.g., bony fishes, amphibians, mammals) and explore the causes and implications of ASR variations. The student will register for the PhD programme of Debrecen University, and her/his main tasks will be collecting data from the literature, phylogenetic analyses and preparation of research papers. We are seeking candidates with an undergraduate degree (BSc and Master or equivalent) in evolutionary biology, behavioural ecology, population biology or zoology, good quantitative skills including programming, and ability to work as part of an international team. The stipend will be up to 150,000 HUF/month (substantially above the normal PhD stipend in Hungary).

APPLICATION PROCEDURE The application should have three parts combined into a single file: 1. Cover letter (max 2 pages) 2. CV (max 3 pages) 3. Names and contact details (institution, email address) of 3 referees. Application deadline: 30 November 2015. Interviews will be in early December. The applications should be submitted to T.Szekely@bath.ac.uk. Only applicants invited for the interview will be notified.

BACKGROUND READINGS 1. Pipoly, I. et al. 2015. The genetic sex-determination system predicts adult sex ratios in tetrapods. *Nature* 527: 91 - 94. 2. Reme¹, V. et al. 2015. The evolution of parental cooperation in birds. *Proceedings of National Academy of Sciences, US* (in press online). 3. Liker, A, R. P. Freckleton, & T. Székely. 2014. Divorce and infidelity are associated with skewed adult sex ratios in birds. *Current Biology* 24: 880-884.

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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>

INRA-AngersFrance FungalPathogens

Please find below an offer for a 2-year postdoc position on fungal pathogens in Angers, France. The position is open for non-French citizens only.

All the best, Ludovic

—

Ludovic Duvaux, Postdoctoral Research Associate

University of Sheffield Department of Animal & Plant Sciences - Alfred Denny Building Western Bank Sheffield, S10 2TN United Kingdom

Tel: +44 (0) 1142220113

A 2-year postdoc position is available at INRA in Angers, France, to study the adaptation of the scab fungus *Venturia inaequalis* to different host plants. Could you please forward this advert to anyone who might be interested in this position? Thank you, Best wishes Jerome Jérôme Collemare UMR1345 IRHS-INRA 42 rue Georges Morel 49271 Beaucouzé Cedex France (+33) 02 41 22 57 15 <tel:%28%2B33%29%2002%2041%2022%2057%2015> jerome.collemare@angers.inra.fr

*A two-year postdoctoral position in molecular plant pathology at INRA** **Angers, France*

Applications are invited for a postdoctoral position to study molecular determinants underlying adaptation of pathogenic fungi to their host plants, in the EcoFun team of the Horticulture and Seed Research Institute (IRHS). Our lab conducts research on the interaction between the scab fungus *Venturia inaequalis* and its host plants, including domesticated and wild apple trees, and firethorn. Host shifts between these hosts have been reported, making this pathosystem an adequate model to identify genes involved in fungal adaptation to different host plants. The research will employ interdisciplinary approaches, including molecular biology, microscopy and RNA-seq analyses. The first task of this position will be to take ownership of population genomic resequencing data to identify genes present in isolates that are pathogenic on a single host only. The second task will be to determine at which stages of the infection process genes involved in adaptation to different host plants are expressed, using confocal and MEB microscopy of incompatible interactions. This knowledge will be used in a third task to harvest infected leaves for deep transcriptome sequencing (RNA-seq) and identify genes that are specifically expressed on a given host. The successful candidate is also expected to contribute to the writing of research publications and to help with student supervision.

Job requirements Candidates should have or expected to obtain a PhD in Biology, Molecular Biology, Functional Genomics, or a closely related subject. Skills in Next Generation Sequencing data analysis are highly desirable. Candidates with a PhD in Bioinformatics are also highly encouraged to apply. Experience in fungi and practical knowledge in molecular biology, microscopy and bioinformatics are advantageous. Candidates must have proficiency in oral and written English. This position is available for non-French citizens only.

Job details The position is full-time for 24 months and is available to start as early as 1st January 2016. Basic gross salary on appointment will be between 2,200 and 3,100 per month depending on experience. The applicant will have the possibility to obtain an additional mobility allowance from the AgreeSkills and AgreeSkills+ schemes, ranging from 1,300 to 1,700 per month depending on experience (www.agreenskills.eu).

Application The position is open until filled. Applications should include a cover letter summarizing your experience and describing your research interests, a curriculum vita, and at least two references. Applications should be emailed to jerome.collemare@angers.inra.fr. For further information, please contact Dr. J. Collemare (email: jerome.collemare@angers.inra.fr; tel.: +33(0) 2 41 22 57 15)

Organization description Institut de Recherche en Horticulture et Semences (IRHS) UMR1345 INRA - Université d'Angers - Agro Campus Ouest Evolutionary Ecology of Fungi (EcoFun) 42 rue Georges Morel 49071 Beaucouzé Cedex <http://www6.angers-nantes.inra.fr/~irhs/Recherche/EcoFun> The candidate will be located in IRHS, Angers, which leads research on Rosaceae plants and seeds in France, including research on fungi and bacteria pathogenic on apple, pear and rose. The position will provide access to local excellent technical centres in molecular biology and microscopy (laser-scanning confocal microscope, table electron-scanning microscope). The candidate will have the opportunity to interact with other research teams within the institute; and will interact with scientists with knowledge in functional genomics, population genetics and genomics, epidemiology and modelling within the EcoFun team.

Life in the Loire Valley The laboratory is located near Angers, in the Loire Valley. This region is often called the garden of France because of fruits and vegetables production, and green calm landscapes. It is also famous for a gentle

— / —

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Liverpool Bioinformatics

Senior Research Associate in Bioinformatics

This position, funded by a grant from Bill & Melinda Gates Foundation, is for a bioinformatician or structural biologist with coding experience. The project is a part of a research consortium 'Realizing Increased Photosynthetic Efficiency for sustainable increases in crop yield' performed in a close collaboration with the groups of Drs Spencer Whitney (Australian National University) and Martin Parry (Lancaster University) who are attempting to make a major step forward in increasing photosynthetic efficiency by making improved version of Rubisco (Ribulose-1,5-bisphosphate carboxylase/oxygenase) for crops.

The project will involve analysis of plant transcriptomes and proteomes as well as structural analysis of proteins. The researcher will be expected to interact closely with the experimentalists in the consortium to ensure that appropriate constraints are measured. There will be ample opportunity for the researcher to travel to the laboratories of the consortium partners and ideally, to learn some experimental techniques to go alongside their computational skills.

An interest in computational comparative genomics, structural biology or in translational bioinformatics would be an advantage. The position will be initially for a one year. However, the contract could be potentially extended up to three years subject to the performance review by the funders.

The candidate should have a successful track record in bioinformatics. The successful applicant will work in close collaboration with Dr Maxim Kapralov at Liverpool John Moores University and experimental collaborators in Canberra and Lancaster.

The appointment will be on the Grade 7 scale for professional and management staff on a starting point within the range £30,434 - £37,394 per annum. The annual holiday entitlement will be 38 days (including days taken on fixed dates at Christmas and Easter and 8 public holidays).

Closing date: Sunday 22nd November 2015. Starting date: as soon as convenient

Any questions to Dr Maxim Kapralov (m.v.kapralov@ljmu.ac.uk)

The formal advertisement will appear soon at the website of Liverpool John Moores University.

Dr Maxim Kapralov Lecturer || Liverpool John Moores University || School of Natural Sciences and Psychology || Life Sciences Building || Room 2.07 || Byrom Street || Liverpool || L3 3AF || United Kingdom || +44 0151 231 2273 || email: m.v.kapralov@ljmu.ac.uk || <http://scholar.google.co.uk/citations?user==>

[3DqTUIBcYAAAAJ&hl=3Den&oi=3Dao](https://doi.org/10.1093/evo/evv105) “Kapralov, Maxim” <M.V.Kapralov@ljmu.ac.uk>

McMasterU ModelingEbola

<http://tinyurl.com/Dushoff-Ebola-Research> Ebola research position

A postdoctoral scientist (or post-masters research associate) position in modeling infectious disease data (1 year, renewable depending on funding) is available at McMaster University in the group of Dr. Jonathan Dushoff (Department of Biology). The postdoc will join a diverse team, including collaborators in the United States and South Africa, to analyze the recent West Africa Ebola outbreak and build tools for rapid quantitative analyses to be used in future outbreaks of Ebola and other diseases.

We require a candidate with strong quantitative, computational and communication skills. Applicants should have experience with dynamical modeling of ecological or infectious disease systems and parameter estimation for statistical models (Bayesian or frequentist). A Ph.D. is preferred, but because of the limited term and short notice, highly qualified candidates at the Masters level will also be considered.

The candidate should be available to start between January and March of 2016. Review of applications will begin on Dec 15, 2015, and continue until the position is filled. To apply, please e-mail Jonathan Dushoff (dushoff@mcmaster.ca) with a curriculum vitae (CV), a one-page statement of how your research interests and experience relate to this position, and contact information for 3 references.

More information on our group’s research can be found at <http://tinyurl.com/DushoffLab>. McMaster is located in Hamilton, Ontario, less than an hour from both Niagara Falls and from Toronto (and convenient to the latter by public transportation). The campus is large, green and conveniently located.

– McMaster University Department of Biology <http://lalashan.mcmaster.ca/theobio/-DushoffLab/> https://twitter.com/jd_mathbio <http://jd-mathbio.blogspot.com/> “Dushoff, Jonathan” <dushoff@mcmaster.ca>

NatIU Singapore ButterflyEvolution

Postdoctoral position in Evolutionary Functional Genomics

Dept. Biological Sciences, National University of Singapore

A postdoctoral position is available in the lab of Antónia Monteiro to study the genetic basis of morphological variation in butterfly wing patterns. The project will involve using functional genetic tools, such as CRISPR-Cas9, to examine the function of genes and/or cis-regulatory elements that have been identified as candidate loci producing differences in eyespot number across populations of *Bicyclus anynana* butterflies.

The position is initially for two years and can start immediately. Salary will be competitive and commensurate with experience. Candidates with experience in molecular biology, cloning, and functional essays, are especially welcome to apply. Bioinformatics expertise is also welcome.

The Department of Biological Sciences offers world-class research labs and infrastructure and a convivial and collaborative environment. Singapore is a lush, green city offering tropical weather year around, a diversity of food, and nearby exotic locations.

Interested applicants should contact Antónia Monteiro (antonia.monteiro@nus.edu.sg) with a CV, a brief statement of research interests, and the names of three references.

Lab web site can be found here: <http://lepdata.org/monteiro/> Antónia Monteiro <antonia.monteiro@nus.edu.sg>

NHM London OriginLantPlants

Postdoctoral Research Assistant (PDRA) ’ Origin of Land Plants: Genomes, Rocks, Biogeocycles

Host Institute: Natural History Museum Department of Life Science, London SW7 5BD, UK

Job Description: Applications are invited for a two-

year position as part of the NERC funded research project ³Origin of Land Plants: Genomes, Rocks, and Biogeocycles². The successful candidate will join an interdisciplinary team of evolutionary biologists, palaeontologists, plant scientists, phylogeomicists, and biogeochemical modellers located at some of the world's foremost centres for palaeo- and biodiversity research namely Natural History Museum, Earth Sciences at Bristol, Earth & Ocean Sciences at Cardiff, Animal & Plant Sciences at Sheffield, and GEE at University College London. The main objective of the project is to reconstruct the colonization of land by plants, and its impact on Earth Systems by reconstructing the phylogeny and divergence times of allextant land plant lineages and their Paleozoic fossil relatives.

The PDRA will be mainly responsible to carry out the phylogenomic analyses, the integration of the fossil taxa into a phylogeny reconstructed using both genomic and morphological evidence, and the establishment of a robust divergence time frame using newly developed methods that allow a more realistic integration of fossil evidence into DNA based divergence time estimations.

The PDRA is expected to collaborate with all researchers involved in the proposal but especially with Philip Donoghue (Bristol), Harald Schneider (NHM), and Ziheng Yang (UCL). THE PDRA is expected to take the lead on the publication of the research results of the component on phylogenomics and divergence time estimates beside the communication of the research to both expert and non-expert audiences.

Desired Skills and Experience: We are looking for a highly motivated early-career evolutionary biologist with experience in assembling datasets for phylogenomic analyses, phylogenetic analyses using phylogenomic datasets, and divergence time estimates using bayesian analytical tools. A background in statistics and bioinformatics will be appreciated, whereas documented expertise in oral and printed communication of research results is a requirement.

Starting data: January/February 2016.

Salary: following the NERC guidelines (basic annual salary 29,174 GPP)

About the Employer Natural History Museum, London, UK

Applications are expected to include: Cover letter, CV, and PDFs of recent publications.

Contact: Prof Harald Schneider, Department of Life Sciences, Natural History Museum, London, UK. Email: h.schneider@nhm.ac.uk

The position is open until filled. The interviews are

expected to happen in early December 2015.

Harald Schneider <h.schneider@nhm.ac.uk>

OregonStateU 2 EvolutionaryGenomics

Cluster Hire: Two Postdoctoral Research Positions in Evolutionary Genomics of Mate Choice

The Coastal Oregon Marine Experiment Station at Oregon State University invites applications to fill two Postdoctoral Researcher positions in Evolutionary Genomics. The successful candidates will work with PIs and agency colleagues (Oregon Department of Fish and Wildlife, NOAA Northwest Fisheries Science Center, and US-FWS Abernathy Fish Technology Center) to resolve evolutionary mechanisms underpinning observed fitness differences between hatchery and wild salmon, recommend strategies to mitigate for those differences, and attend to overall goals of maximizing Oregon's fishery and conservation objectives.

Primary responsibilities will be to use total lifetime fitness estimates from previously established Chinook and coho salmon genetic pedigrees to determine if observed fitness differences between hatchery and wild salmon can be explained by additive and/or non-additive effects of mate choice. While both positions will use genomic analyses to study mate choice among hatchery and wild salmon mate pairs, one position will focus on coho salmon from Calapooya Creek, Oregon while the second position will focus on Chinook salmon from the South Fork McKenzie River, Oregon.

Initial funding is expected for two years, but positions are renewed annually in June with the potential for additional support contingent on performance and funding.

Salary: \$45,600

Start Date: February 1st 2016

To apply for both positions:

See: <https://jobs.oregonstate.edu/applicants/jsp/-shared/position/JobDetails.css.jsp?postingId=429304>
 Posting number: 0016312 Search for Location: Newport, Department: COMES, Position title: Research Associate (post doc)

Closing date: 04-Dec-2015

Informal Enquiries: Michael Banks (coho salmon study) michael.banks@oregonstate.edu Kathleen OMalley (Chi-

nook salmon study) kathleen.omalley@oregonstate.edu
 Michael A. Banks Director, CIMRS Professor, Marine Fisheries Genetics & Conservation Coastal Oregon Marine Experiment Station, HMSC Department of Fisheries and Wildlife, OSU 2030 SE Marine Science Drive, Newport, Oregon 97365 Landline: 541-867-0420 Cell 541:272-7057 <http://hmsc.oregonstate.edu/cimrs> "Banks, Michael" <michael.banks@oregonstate.edu>

OregonStateU SalmonDomestication

We're looking for someone to study how salmon adapt to hatcheries

Mentors and Affiliations: Michael Blouin, Department of Integrative Biology, College of Science, Oregon State University <http://people.oregonstate.edu/~blouinm/> David Noakes, Department of Fisheries and Wildlife, College of Agriculture, Oregon State University <http://fw.oregonstate.edu/content/david-noakes> Open Date: now Close Date: Until filled.

Job Description: Candidate will work primarily with Michael Blouin to develop and execute studies to identify the behavioral, physiological, or other traits associated with domestication (adaptation to hatchery culture) in salmonid fish. The long-term goal of the work is to identify ways in which hatchery culture could be changed to reduce the intensity of domestication selection. We are looking for a creative, well-read person who can bring new ideas to this question, in addition to executing current projects. This position is funded by the Oregon Department of Fisheries and Wildlife (ODFW), through the Oregon Hatchery Research Center (a joint venture between OSU and the ODFW; Dr. David Noakes, Senior Scientist. <https://olis.leg.state.or.us/liz/2015R1/-Downloads/CommitteeMeetingDocument/76849>). Candidate will have access to facilities at the OHRC, and to production hatcheries run by the ODFW. The intellectual environment at OSU includes Blouin's lab, which uses a variety of gene mapping and other genomics technologies to study adaptive variation, in addition to colleagues at OSU in the departments of Integrative Biology and of Fisheries and Wildlife. This is a full-time (1.0 FTE), 12-month, fixed-term Postdoctoral Research Scholar position, renewable yearly at the discretion of mentor. The position is available immediately.

Required qualifications and experience: PhD in relevant field. Excellent written and verbal communication skills are critical, as the candidate will need to work in a re-

search team and closely with agency staff at hatcheries. Must be within 5 years of PhD to qualify for the post-doctoral research scholar position

Preferred Qualifications and Experience: A background in fish physiology or behavior would be very desirable Experience working with salmon Experience with hatcheries Demonstrated ability to publish their work

More info or to apply: For more information or to apply, contact Michael Blouin at blouinm@science.oregonstate.edu, and include "hatchery postdoc position" in the title of your email. To apply, include a curriculum vitae that includes the names of at least three professional references, their email addresses and telephone contact numbers. Include a cover letter indicating how your qualifications and experience have prepared you for this position, and what interests you about coming to Oregon State University to work on this project.

Thanks!

Michael Blouin Dept. Integrative Biology, Oregon State University Corvallis, OR 97331-2914 <http://oregonstate.edu/~blouinm/> Tel: 541-737-2362 Fax: 541-737-0501

"blouinm@science.oregonstate.edu"
 <blouinm@science.oregonstate.edu>

OxfordU DiseaseEvoAndComputationalAnalysis

Postdoctoral Researcher in Evolutionary and Computational Analysis of Infectious Disease

Full details here: <http://bit.ly/1MxkwOe> Department of Zoology, South Parks Road, Oxford Grade 7: £30,434 - £37,394 with a discretionary range to £40,847 p.a.

The Department of Zoology, seek an ambitious Postdoctoral Researcher with strong quantitative skills to undertake research at the interface of evolutionary biology, infectious disease, computational statistics, and genomics. The position is available immediately for a fixed-term of 3 years (36 months). The candidate will join a productive and award-winning research group under the supervision of Professor Oliver Pybus (@EvolveDotZoo). Funding is available to support training, collaborative visits and conference attendance.

Main responsibilities: - Undertake innovative research

in the fields of virus evolution, epidemiology, statistical inference, genomics, population genetics, phylogenetics, quantitative immunology, or mathematical modelling; - Create and apply computational and statistical methods. Develop, maintain and distribute completed software; - Contribute and develop ideas for new research projects; - Participate in and lead the publication of research findings in international peer-reviewed journals and other publications.

The successful candidate will hold a doctoral degree in a relevant field of biology; or a doctoral degree in another science (e.g. computer science, statistics, mathematics, physics, chemistry) with a strong link to the research described and have strong analytical and quantitative skills, including a good working knowledge of probability theory/statistics. They must be competent in scientific computing using at least one programming language (C, C++, JAVA, preferred) and demonstrate the ability to undertake high quality scientific research.

Only applications made online before 12.00 midday on Monday 21 December 2015 will be considered. Please upload a CV and supporting statement.

Vacancy ID : 121132 Contact Phone : 01865 271278
Closing Date : 21-Dec-2015 Contact Email : personel@zoo.ox.ac.uk Full details: <http://bit.ly/1MxkwOe>
Oliver Pybus <oliver.pybus@zoo.ox.ac.uk>

Paris HumanPopulationGenomics

A one-year post-doctoral position is open from 2016 in the Human Population Genetics team at the Musée de l'Homme in Paris, France, in collaboration with the Inserm U946 located at the CEPH-Fondation Jean Dausset.

The project aims at analyzing 120 whole-genomes from 4 Asian populations having different kinship systems and consanguinity levels. We aim at investigating the influence of kinship systems on the evolution of deleterious mutations.

Skills in Population genetics, statistics and bioinformatics are required. Start date no later than Spring 2016.

This project involves Evelyne Heyer, Anne-Louise Leutenegger and Raphaëlle Chaix. The position is funded by the Emergence programs of COMUE Sorbonne Paris Cité and Sorbonne Université. We are willing to extend this position for another two years

depending on funding opportunities.

If you are interested, please send your CV to anne-louise.leutenegger@inserm.fr, hey@mnhn.fr and chaix@mnhn.fr before the 10th of December 2015.

Raphaëlle Chaix <chaix@mnhn.fr>

PennsylvaniaStateU HunterGathererEvolGenomics

Postdoc Scholar in hunter-gatherer functional evolutionary genomics

The laboratory of George (PJ) Perry in the Departments of Anthropology and Biology at The Pennsylvania State University is seeking applications for a postdoctoral scholar. The postdoc will have the opportunity to lead multiple functional and evolutionary genomic studies of DNA and cell line samples from human hunter-gatherer and their neighboring agriculturalist populations. Additional research project opportunities in non-human primate evolutionary genomics, with parasite proxy models for human evolutionary history, or in other areas based on individual interests, are also possible. For more information about our lab: www.anthgenomicslab.com

In addition to a demonstrated record of publication, the ideal candidate will have expertise with both cell culture and genomics/bioinformatics and interest in applying these techniques to the study of human evolution. Candidates with genomics/bioinformatics expertise and some wetlab experience not including cell culture will also be considered. The position will start between March and October 2016 and may be renewed annually. A qualified candidate must hold a Ph.D. degree or have completed all of the requirements for a Ph.D. by the time of appointment. To apply for this position, submit 1) a cover letter, 2) your CV, 3) the names and contact information of three people who can be contacted for letters of reference, and 4) up to three of your publications at <https://psu.jobs/job/60649> CAMPUS SECURITY CRIME STATISTICS: For more about safety at Penn State, and to review the Annual Security Report which contains information about crime statistics and other safety and security matters, please go to <http://www.police.psu.edu/clery/>, which will also provide you with detail on how to request a hard copy of the Annual Security Report.

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to all qualified applicants without regard to

race, color, religion, age, sex, sexual orientation, gender identity, national origin, disability or protected veteran status.

grgperry@gmail.com

PennsylvaniaStateU StressEvolution

Understanding the adaptive potential of maternal stress.

An NSF-funded postdoctoral position is available immediately in the laboratories of Michael Sheriff (<http://michaeljsheff.weebly.com>) and Tracy Langkilde (<http://langkildelab.weebly.com>) at The Pennsylvania State University. The aim of this project is to understand how maternal stress alters the morphology, behavior and physiology of offspring, and how these changes ultimately affect offspring survival “in both highly stressful and benign environments. The main duties of the postdoc will be to conduct field and lab experiments and surveys aimed at unraveling ecological and evolutionary consequences of maternal stress for survival of offspring in high-stress fire ant conditions. The postdoc will be expected to play an important role in developing this research, in collaboration with graduate and undergraduate students involved in the project. This project bridges the fields of behavior, physiology and ecology.

The successful candidate will have a PhD in ecology or evolutionary biology, with a focus on ecological endocrinology. Previous field experience and publication of papers in leading journals in the field is a must. Candidates with experience in the fields of behavior, morphology, and stress ecology, and research in reptilian systems, are especially encouraged to apply. The postdoc will be based at the University Park campus of Penn State University. Field research trips totaling up to 3 months per year will be conducted in semi-remote locations throughout the Southeastern USA. Must possess a valid driver's license and be willing to drive long distances. Since this position requires that you operate a motor vehicle as part of your job duties, successful completion of a motor vehicle records check will be required in addition to standard background checks.

Target start date of January ” March 2016. The initial contract is for one year, with possible extension for up to three years pending satisfactory performance and available funding. Interested applicants should upload a CV, a short (1 page) statement of research interests, lab and field experience and why they are a good fit for this position, as well as contact information of three

references. Review of applications will begin immediately and continue until the position is filled. Apply online at <https://psu.jobs/job/58634> CAMPUS SECURITY CRIME STATISTICS: For more about safety at Penn State, and to review the Annual Security Report which contains information about crime statistics and other safety and security matters, please go to <http://www.police.psu.edu/clery/>, which will also provide you with detail on how to request a hard copy of the Annual Security Report.

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– Michael J Sheriff Assistant Professor, Mammalogy and Ecology Department of Ecosystem Science and Management Penn State University phone. 814 863-0135 <http://michaeljsheff.weebly.com> “mjs72@psu.edu” <mjs72@psu.edu>

SaoPaulo AmazonianBiogeographicAnalysis

We are seeking a postdoctoral fellow to contribute to the project “Dimensions US / Biota São Paulo - Assembly and evolution of the Amazonian biota and its environment: an integrated approach”, co-funded by the São Paulo Research Foundation (FAPESP, Brazil), the National Science Foundation (NSF, USA), and NASA.

The Amazon is Earth's most iconic center of biological diversity and endemism, harboring the world's largest freshwater ecosystem, and contributing substantially to shaping the Earth's climate. Despite this importance, we still have an incomplete understanding of how this biome developed over time, which in turn limits our ability to understand future impacts of biodiversity loss and climate change. The project “Dimensions US - Biota São Paulo: Assembly and evolution of the Amazonian biota and its environment: an integrated approach” seeks to understand the evolutionary and environmental-ecological history of Amazonia over the past 10 million years, through a comparative approach integrating systematic biology and phylogenetics, phylogeography, population genetics, ecosystem structure and function, geosciences, and paleoenvironmental history.

The ideal candidate will have a PhD in Biological Sciences, combining a solid knowledge of population genetic, phylogeographic, phylogenetic, and/or diversification analyses of Neotropical diversity and of Neotropical environmental history. The candidate is also expected to have experience in analyzing genomic data, particularly data obtained with ultraconserved elements (UCE) probes, but should have a good understanding of other types of NGS data. A track record of publication in international journals and relevant statistical and programming skills are expected. The appointee will analyze population genomic datasets of Amazonian birds and primates; address biogeographic questions and test hypotheses of the assembly and evolution of Amazonian biota; interact with Earth scientists to interpret biogeographic patterns and processes, and to disseminate their findings by publishing in internationally renowned journals and presenting in scientific conferences. The results of these analyses will have a major impact on the interpretation of the evolutionary history of the Amazon Basin.

Particulars of the position:

The fellowship will start in February/March 2016 and last until August 2017 (19 months), with possible renewal for another 5 months. The appointee will be based at Dr. Diogo Meyer's lab (S  o Paulo University - USP, S  o Paulo, Brazil), but due to the focus and collaborative nature of this project, the appointee will work closely with the laboratories of Dr. Camila Ribas (INPA, Manaus, Brazil), Dr. Alexandre Aleixo (MPEG, Bel  m, Brazil) and Dr. Tomas Hrbek (UFAM, Manaus, Brazil). The appointee will also directly interact with our international partners, Dr. Joel Cracraft (AMNH, New York, USA) and Dr. John Bates (FMNH, Chicago, USA). Candidates must be proficient in oral and written English and the ability to communicate in Portuguese or Spanish is highly desirable.

The monthly salary is of R\$ 6,143.40 while in Brazil (at current exchange rate approximately \$ 1,600 / 1,500), allowing for comfortable living, and includes additional Research Contingency Funds equal to 15% of the annual salary for covering research-related expenses. Moving expenses are covered for candidates from outside the State of S  o Paulo. Full details can be found at <http://www.fapesp.br/en/5427> . How to apply

Candidates of any nationality eligible for a VITEM I Brazilian visa may apply. A cover letter, CV, up to three relevant publications and the names of three contacts able to provide letters of recommendation should be emailed to amazonianbiota@gmail.com. Applications are due by Dec 31st, 2015.

Informal inquiries may be made to Diogo

Meyer (diogo@ib.usp.br), Camila Ribas (camilaribas@inpa.gov.br), Alexandre Aleixo (aleixo@museu-goeldi.br), and Tomas Hrbek (hrbek@evoamazon.net). tomas@evoamazon.net

SeoulNatIU EvolutionDiseaseResistance

We are seeking to appoint a Post-Doctoral Fellow to work on a three-year project on "Ecological Immunogenetics and Behavioral Responses to Disease" funded by the National Research Foundation of Korea.

This project addresses the interaction of disease, adaptive immune function, and the evolution of behavioral strategies to effectively respond to emerging infectious pathogens. Recent data show that amphibians can rapidly evolve immunogenetic defenses to pathogens, such as the amphibian chytrid fungus. However, these adaptations potentially entail life-history costs that otherwise decrease fitness. The project examines from an integrative perspective how immune system genes, through the interaction of major histocompatibility complex molecules and their regulation of microbial assemblages, produce social signals that enable individuals to recognize genetically compatible partners. The research further assesses the fitness consequences of mate choice under different conditions of disease prevalence.

The research involves collaboration between the School of Biological Sciences and the College of Veterinary Medicine at Seoul National University. The successful candidate will have ample opportunities to interact with colleagues both within Korea and with our international collaborators in Australia, Panama, the United Kingdom, and the United States.

Experience in molecular biology with a strong interest in evolution is desirable. Research will be conducted in well-equipped, modern laboratory facilities.

Seoul National University is one of the leading universities in Asia and ranks internationally 31st overall and 24th in natural sciences (QS World University rankings, 2014). The campus is nestled in a mountain reserve on the outskirts of Seoul and offers excellent opportunities for outdoor activities as well as the full range of cultural activities of an exciting city that combines traditional and modern lifestyles.

Highly subsidized housing and meals are available on campus. English is widely spoken and Seoul is home to

a large international community.

Applications should include a curriculum vitae, names and contact details for two referees, and a brief statement of research interests and goals. In accordance with program deadlines, applications received by 26 November will receive prioritized consideration. Therefore, even if you are unable to prepare a full application by the deadline, if you might be interested, please enquire as soon as possible.

For more information, please contact Prof Bruce Waldman, email: waldman@snu.ac.kr; telephone +1 512 782 9905 (USA) or +82 10 8686 2121 (Korea).

Bruce Waldman School of Biological Sciences Seoul National University 1 Gwanak-ro, Gwanak-gu Seoul 08826 South Korea

<http://biosci.snu.ac.kr/behavior>

“bw@bronze.lcs.mit.edu” <bw@bronze.lcs.mit.edu>

SLU Alnarp PlantHerbivorePollinator Interactions

Postdoc in Plant-Herbivore-Pollinator interactions: Does plant resistance improve pollination at the population level?

Herbivore-damaged strawberry plants deter pollinators, leading to reduced pollination success. However, wild strawberry (*Fragaria vesca*) genotypes differ in their resistance against herbivores. The importance of plant resistance has previously been tested in a mixed common garden where herbivores as well as pollinators are free to interact with resistant or susceptible plants. Such experimental 'cafeteria situations' are, however, quite different from wild populations and commercial plantations where plant-genetic variation within a site typically is lower.

The aim of this postdoc project is to investigate how plant resistance against herbivores affects plant-herbivore-pollinator interactions at the population level. Experimental all-resistant and all-susceptible plantations were established for this purpose in 2015. Please find the online ad here: <http://www.slu.se/sv/om-slu/fristaende-sidor/-aktuellt/lediga-tjanster/las-mer/?eng=1&Pid=2106>
Best regards, Johan

Johan A. Stenberg Associate Professor

Sveriges lantbruksuniversitet Swedish University of Agricultural Sciences

Department of Plant Protection Biology PO Box 102, SE-230 53 ALNARP Visiting address: Sundsvägen 14 Tel: +46 40 41 53 78 johan.stenberg@slu.se, www.slu.se/stenberg “Johan.Stenberg@slu.se” <Johan.Stenberg@slu.se>

SMNH Sweden BirdsOfParadiseGenomics

Postdoctoral/research position on Birds-of-Paradise (avian phylogenomics)

DESCRIPTION

We are seeking a highly motivated researcher to join the avian DNA research group at the Swedish Museum of Natural History (SMNH) in Stockholm. The objective of our research program is to investigate the evolutionary history of birds using comparative genomics. The principal task for the postdoc/researcher is to lead the analyses of the NGS data. The position is for two years.

We are currently generating and analyzing genome data in several projects. One of these concerns the birds-of-paradise. Besides clarifying their phylogenetic relationships we also want to identify genomic regions of differentiation to explore to what extent these are related to different sexually selected traits in the birds-of-paradise. Another aim is to examine the importance of gene flow in the speciation process, as well as to what extent adaptive introgression has contributed to the evolution of homoplastic phenotypic traits. Our aim is to sequence the genomes of all ca 100 described species and subspecies of birds-of-paradise. So far we have sequenced and assembled five de novo genomes (at 80-100X coverage) and re-sequenced the genomes of the remaining 34 species (at 15-25X coverage)

ENVIRONMENT

The position will be based at the Department of Bioinformatics and Genetics at the Swedish Museum of Natural History (NRM). The museum is located in Stockholm, which by many is regarded as one of the most beautiful capitals in the world and is home to a vibrant scientific community with several leading research institutes, including Stockholm University and the Science for Life Laboratory. The NRM has a strong mission in natural history research, and its research division has more than 170 employees. The Department of Bioinformatics

and Genetics hosts three research groups, focused on avian systematics and biogeography (PI: Dr. Martin Irestedt), ancient DNA and population genetics (PI: Dr. Love Dalén), and phylogenomics (PI: Prof. Fredrik Ronquist).

QUALIFICATIONS

The ideal candidate is a creative and independent researcher, who by the start of the project has obtained a PhD in biology or a related field. A record of scientific achievement in bioinformatics and computational genomics is essential, as is previous experience in handling NGS data using scripts and analysis pipelines. Additional merits include experience in computer programming, phylogenetics, selection scans, as well as proficiency in genome assembly and annotation.

The start date of the position is flexible, but should be no later than July 1, 2016. The position is for two years full-time and the employment will either be as Postdoc or Researcher, depending on whether the applicant was awarded his/her PhD degree less or more than three years before the application deadline.

For further questions regarding the position, please contact Dr. Martin Irestedt (martin.irestedt@nrm.se<mailto:martin.irestedt@nrm.se>). Union representative is Bodil Kajrup SACO-S. Both can be reached at telephone number +46 8 519 540 00.

HOW TO APPLY

Applicants should submit a CV including a publication list, and cover letter describing their research interests, qualifications and reasons for applying. The cover letter should also indicate the applicant's ideal starting date and a list of two persons who may provide references. Please submit the application as a single pdf document, marked with dnr 2.3.1-749-2015, to rekrytering@nrm.se or to Swedish Museum of Natural History, P.O. Box 50007, SE-104 05 Stockholm, Sweden, no later than December 18, 2015.

Love Dalén <Love.Dalen@nrm.se>

TGAC Norwich PopulationGenomics

The Genome Analysis Centre (TGAC) currently has an exciting opportunity for a Postdoctoral Researcher to join our Vertebrate and Health Genomics Group.

Starting salary range: £30,500-33,750 per annum (de-

pending on skills and experience) Duration: 3 years fixed term Location: Norwich, UK

The post holder will be responsible for executing research tasks and participating in data analysis associated with non-coding RNA based projects. The main goal is to investigate the evolution, expression and functionality of non-coding transcribed sequences in Eukaryotes. A specific focus of the research is to better understand the impact of nucleotide variation within long non-coding RNAs on individual fitness. The work will be conducted in several model organisms including human, mouse, fruitfly and *Caenorhabditis elegans*. Through an existing external collaboration, experimental validation and fitness assays of knockout mutants will be performed in *C. elegans*.

To be considered for the post, you will possess the following skills, qualifications and experience: - PhD in Computational Biology, Population Genetics, Biology or related subject - Experience in transcriptomic and/or genomics data analysis - Extensive knowledge of programming languages: Perl or Python, R - Excellent problem solving skills with the ability to solve problems with numerous and complex variables - Experience with next generation sequencing and analysis: genomics and genetics projects molecular evolution and population genetics (desirable) non-coding RNA analysis (desirable) - Excellent oral and written skills - Able to communicate with an interdisciplinary group including data analysts, computer scientists, proteomics specialists, clinicians and laboratory biologists

As a user of the disability symbol, we guarantee to interview all disabled applicants who meet the minimum essential criteria for this vacancy.

TGAC is a vibrant, contemporary research institute and a UK hub for innovative Bioinformatics through research, analysis and interpretation of data sets. We hosts one of the largest computing hardware facilities dedicated to life science research in Europe and our aim is to ensure that biological science in the UK has access to a skill base in genomics and bioinformatics to deliver programmes leading to improved food security, advances in industrial biotechnology and improved human health and wellbeing.

At TGAC we offer competitive salaries, excellent defined contribution pension scheme, life assurance, tailored learning and development and onsite sports facilities that are available to all staff and their guests.

For further information, including a full job description and details of how to apply, please visit <http://-jobs.tgac.ac.uk/> . Closing date for applications: 2nd December 2015

“Wilfried.Haerty@tgac.ac.uk”
<Wilfried.Haerty@tgac.ac.uk>

UAustraldeChile ClimateAdaptation

Call for a Postdoctoral Position to join the Wine, Biodiversity & Climate Change Program

The Wine, Biodiversity & Climate Change Program is a scientific initiative of the Institute of Ecology and Biodiversity, developing strategies for biodiversity conservation along with Chilean wine industry. The project's objective is to develop and promote conservation planning in human dominated ecosystems Application Deadline: December 31, 2015.

This program was initiated in 2008 to engage wine-growers in the protection of the Chilean Mediterranean ecoregion, which lacks adequate protection within the Chilean Protected Areas Network, is highly impacted by human activities, and contains more than 50% of native Chilean vascular plants and vertebrates. Our primary interest has been to study how this ecosystem can continue providing ecosystems services to the wine industry and the local community today, and under future climate change scenarios. We aim to generate research and conservation plans, promoting stewardship of these ecosystems by knowledge transfer to wine growers and local communities.

We are looking for a postdoctoral fellow with strong expertise in metagenomics and bioinformatics, preferably with additional knowledge on community & ecosystems ecology, to join our research team aiming at linking microbial diversity and ecosystem services provision. The post will be based at the Instituto de Ciencias Ambientales y Evolutivas, Universidad Austral de Chile, in Valdivia, Chile. The candidate is expected to travel to winegrowing regions of Chile and Santiago for meetings. The post requires a valid driving license and a minimum level of Spanish. Additional Spanish language training will be available.

The position will be initially for two years, starting at the latest in March 2015.

Applications and other queries should be sent directly to Dr. Olga Barbosa (olga.barbosa@uach.cl) Applications should include: CV Certificate of Doctoral Degree Cover Letter describing professional motivation for this position. Two letters of recommendation. Only letters from researchers that demonstrate an extensive knowledge of

the applicant will be considered.

More info: www.vccb.cl / www.ieb-chile.cl / olga.barbosa@uach.cl

Leonardo D Bacigalupe Instituto de Ciencias Ambientales y Evolutivas Facultad de Ciencias Universidad Austral de Chile Campus Isla Teja s/n Valdivia Chile

<http://iconosquare.com/lbacigal> Leonardo Bacigalupe
<lbacigal@gmail.com>

UBritishColumbia Biodiversity

Postdoctoral Fellowship Opportunity

The next application round begins November 1, 2015. The deadline is January 13, 2016.

We seek applicants for a 2-year postdoctoral fellowship in the U.B.C. Biodiversity Research Centre (www.biodiversity.ubc.ca/). The Centre is made up of over 50 faculty members 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. Postdoctoral fellows funded by the Biodiversity Research Centre typically interact with several lab groups. Candidates are welcome to contact potential collaborating labs in the Centre to inquire about current and potential research activities, but it is not necessary to apply to work with a specific faculty member.

Starting date, 1 September 2016. Salary \$48,000 per yr. Research stipend: \$7,000 per yr. Send curriculum vitae, three letters of reference, and a statement of overall scientific goals and interests (approximately 2 pages) to the address below. Applications and Reference letters will be accepted electronically; reference letters must be sent directly by the referee. Search Chair, Biodiversity Research Centre, U.B.C., 6270 University Blvd., Vancouver, B.C., Canada V6T 1Z4. (e-mail biodiversity.centre@ubc.ca). Closing date for application, 13 January 2016.

The University of British Columbia hires on the basis of merit and is committed to employment equity. We encourage all qualified candidates to apply.

Katie Beall

Administrator Biodiversity Research Centre brcadmin@biodiversity.ubc.ca

Tel: 604-822-0862

Katie Beall <brcadmin@biodiversity.ubc.ca>

UCalifornia Berkeley Evolutionary Genetics

Postdoctoral Scholar Position Available in the Department of Plant and Microbial Biology - Evolutionary and Ecological Genetics

There is an opening for a postdoctoral position available in the lab of Dr. Benjamin Blackman. The aims of the position will be tailored to the expertise of the successful applicant and complement the Blackman Lab's broad interests in the genetic basis of adaptation and domestication, the ecology and evolution of plant development, and mechanisms of organism-environment interaction.

Applying tools from evolutionary genomics, molecular genetics, and field ecology in sunflowers (*Helianthus*) and monkeyflowers (*Mimulus*), our research addresses the following questions: How do plants cope with daily and seasonal environmental fluctuations? How and why do these response evolve along environmental gradients? How are multi-trait adaptations assembled over evolutionary time? Current NSF-funded work is focused on following the history and function of sunflower domestication alleles with ancient DNA and gene expression studies as well as the genetics of natural variation in solar tracking. Additional lab and field work in wild sunflowers and monkeyflowers centers on the genetic changes and ecological pressures contributing to clinal variation in developmental plasticity, with an emphasis on responses to seasonal cues.

The postdoc will work closely with the PI, collaborators, and lab personnel to design and lead research in the lab and field. The position also involves preparing grant proposals and manuscripts, data management and dissemination, and mentoring graduate and undergraduate students.

Basic Qualifications: Candidates must have completed all degree requirements except the dissertation or be enrolled in an accredited PhD or equivalent degree in Biology or related field at the time of application.

Additional Qualifications: Candidates must have a PhD or equivalent degree in Biology or related field by ap-

pointment start date.

Preferred Qualifications: The ideal candidate will demonstrate the ability to integrate across biological disciplines, identify and troubleshoot promising new methodologies independently, and use the appointment to develop and pursue novel, exciting questions. Demonstrated expertise in evolutionary genetics and evolutionary ecology is essential. Expertise in analysis of genomic or transcriptomic datasets, programming for bioinformatics, biostatistics, selection analysis, QTL mapping, or gene expression studies is desirable.

Appointment: The targeted start date for this position is mid-January 2016. The initial appointment is for one-year, however, appointment may be renewed for an additional one-year increments, contingent upon available funding and satisfactory performance. This is a full-time appointment.

Salary and Benefits: Salary will be commensurate with qualifications and experience and based on UC Berkeley Postdoc salary scales. The salary range for this position is \$42,840 to \$50,112. Generous benefits are included (<http://vspa.berkeley.edu/postdocs>)

To Apply: <https://aprecruit.berkeley.edu/apply/-JPF00892> Interested individuals should include a 1-2 page cover letter that summarizes research interests and professional goals, along with a current CV and the names and contact information of three references. Letters of reference may be requested for finalists. It is optional to include a statement addressing past and/or potential contributions to diversity through research, teaching, and/or service.

This position will remain open until filled.

Questions regarding this recruitment can be directed to Dr. Benjamin Blackman at bkblackman@berkeley.edu.

All letters will be treated as confidential per University of California policy and California state law. Please refer potential referees, including when letters are provided via a third party (i.e. dossier service or career center) to the UC Berkeley Statement of Confidentiality (<http://apo.berkeley.edu/evalltr.html>) prior to submitting their letters.

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status. For the complete University of California nondiscrimination and affirmative action policy see: <http://policy.ucop.edu/doc/4000376/-NondiscrimAffirmAct> The Department is interested in

candidates who will contribute to diversity and equal opportunity in higher education through their research or teaching.

The University of California, Berkeley has an excellent benefits package as well as a number of policies and programs in place to

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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/evodir.html>

UCalifornia Berkeley PopulationGeneticsTheory

Dear Colleagues,

I am searching for a postdoc in the area of theoretical population genetics. Please bring this ad to the attention of suitable candidates.

Yours sincerely, Monty Slatkin

Postdoctoral Scholar Theoretical Population Geneticists
- Integrative Biology

The Department of Integrative Biology at UC Berkeley is seeking a highly motivated individual to carry out research in theoretical population geneticists.

Responsibilities:

The main responsibility will be research in population genetics including the population genetics of humans, Neanderthals and Denisovans, models of range expansions, genomic tests of inbreeding and relatedness, and genomic tests of soft and hard selective sweeps.

Minimum/Basic Qualifications Required (By the time of application): Ph.D. or equivalent in Integrative Biology or related field.

Additional Required Qualifications (By start date): - Training in analytic theory -Programming skills in Python, R or Perl and a low-level language such as C++. -The starting date is negotiable but must be within three years of when the Ph. D. or equivalent degree was awarded.

Appointment:

This position reports to Dr. Montgomery Slatkin. The initial appointment will be for {100% time for 1 year

with the possibility of extension based on performance and funding. The approximate start date for this position is February 1 2016

Salary: \$42,840 - \$50,112 depending on qualifications. This position provides full benefits.

To Apply: <https://aprecruit.berkeley.edu/apply/-JPF00912>. Also send email to slatkin@berkeley.edu

Interested individuals should submit application documents as PDFs, which includes, an updated curriculum vitae , and names with contact information for 3-5 individuals who have agreed to provide a reference for this specific position and a cover letter. Letters of reference may be requested for the finalists.

This recruitment will remain open until the position is filled.

All letters will be treated as confidential per University of California policy and California state law. Please refer potential referees, including when letters are provided via a third party (i.e., dossier service or career center), to the UC Berkeley statement of confidentiality (<http://apo.berkeley.edu/evalltr.html>) prior to submitting their letters.

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status. For the complete University of California nondiscrimination and affirmative action policy see: <http://policy.ucop.edu/doc/4000376/-NondiscrimAffirmAct>. The department is interested in candidates who will contribute to diversity and equal opportunity in higher education through their work.

slatkin@berkeley.edu

UCalifornia LosAngeles PlantTraitDiversity

A post-doctoral position is available (start date flexible, can start as early as January, 2016) in the group of Dr. Van Savage (<http://faculty.biomath.ucla.edu/vsavage/>) in the Department of Ecology and Evolutionary Biology at UCLA. This position will be supported by a recently awarded NSF grant and will involve collaboration with researchers at Oxford University, University of Arizona, and the Carnegie Department of Global Ecology at Stan-

ford University. Savage combines mathematical models with analysis of large datasets to uncover insights into the function, structure, and evolution of biological systems. The project has the potential to involve theory development for trait-based models, analysis of large datasets for plant traits based on LIDAR, hyper-spectral, and field measurements, as well as numerical simulations for how plant traits determine forest dynamics and carbon production by responding and potentially evolving to impacts of drought and climate change in the Amazon. Results from this project will help lead to a deeper understanding of how individual plant traits influence ecosystems and also to project future productivity, diversity, and distributions of trees in the Amazon. Savage will mentor the postdoc in designing and conducting research projects, writing papers, giving talks, and applying for jobs.

UCLA is a major research university with the Faculty of Arts and Sciences, Medical School, and Engineering School all on the same campus, allowing access to myriad researchers and resources that could be useful to this project. UCLA is consistently in the top 5 in terms of federal research funding awarded to universities. Los Angeles is a vibrant, diverse city with outdoor activities available nearby, including beaches and mountains. L.A. also has a wide array of arts and culture, including world-class museums, theater, music, and of course, movies.

Candidates are expected to be independent, highly motivated problem solvers who communicate well and enjoy working in a collaborative environment. The ideal candidate would have a background in mathematical modeling, knowledge of plant traits and trait-based models, and experience with programming languages such as Matlab, IDL, ArcGIS, R, Mathematica, C, and Python. Applicants with only a subset of these skills are encouraged to apply. Applications and any questions should be sent to vsavage@ucla.edu. The application should include a Curriculum Vitae that details education, past research, and publications. Applicants should also submit a cover letter that describes their interest in the project and the names of three references. Review of applications will begin immediately and continue until the position is filled.

UCLA is an AA/EOE that is strongly committed to diversity and excellence among its researchers.

Van Savage <vsavage23@gmail.com>

UCologne Arabidopsis Evolutionary Genomics

Adaptive evolution of stress responses in the genus *Arabidopsis* Lab. J. de Meaux - Cologne

The University of Cologne invites applications from motivated and committed candidates for a postdoc position in the research group of Prof. Juliette de Meaux in the faculty of Natural Sciences.

A significant part of adaptation occurs by the accumulation of small effect mutations, which cannot be tracked individually but have to be analyzed collectively at the system level. Research in the de Meaux lab intends to understand whether the collective molecular activity of cis-acting mutations can reveal novel insight into the molecular biology of adaptation. Time-dependent data of transcriptomic, metabolic and phenotypic data in response to applied stresses will be used to reconstruct how cis-acting changes modify cellular and metabolic phenotypes. Because our data examines phenotypically divergent populations, we hope to disentangle the impact of neutral vs. selective evolutionary forces on cellular modifications. The postdoctoral research associate will design analytical strategy to describe the evolution of gene network and evaluate the impact of selective forces. He will work in collaboration with our international team

The applicant must hold a PhD in Evolutionary Biology (Comparative Genomics, Evolutionary Genetics or Population genetics) and hold advanced skills in bioinformatic programming. Language in the lab is English. Applications or questions regarding the position should be sent by mail to jdemeaux@uni-koeln.de, with the following subject line: - Postdoc application adaptation *Arabidopsis* genus - de Meaux lab. A letter of motivation, a CV and the contact of 3 referees should be provided, all in a single pdf file. Revision of applications will begin in Nov. 21, 2015 and continue until the position is filled. Funding is for one to four years starting in Spring 2016 (flexible starting date). For more information on our lab and research visit our website <http://www.botanik.uni-koeln.de/1146.html>. Applicants still in the process of completing their PhD are encouraged to informally contact the PI if they have questions concerning the position. The University of Cologne is an equal opportunity employer in compliance with German laws. People with disabilities are strongly encouraged

to apply. Women are also strongly encouraged to apply. Cologne is Germany's vibrant Metropolis on the Rhine. The city is well known for its wild carnival, its famous Kölsch beer, its Cathedral and its vivid contemporary art and musical scene. Cologne is the fourth biggest city in Germany with over a million inhabitants from all over the world and an interesting mix of restored historic buildings and modern post-war architecture. Most importantly, Cologne University is one of the oldest and largest Universities in the Country. Our research group is hosted at the Biological Center of the University of Cologne and associated to the Collaborative Research network SFB680 (<http://www.sfb680.uni-koeln.de>) and to the Excellence Research Cluster CEPLAS (<http://ceplas.eu/de/>), which fosters active interactions between plant scientists of the Universities of Cologne, Düsseldorf and the Max Planck Institute of Plant Breeding Research. In this context, our PhD students are assured to start their scientific career in a world-class scientific environment.

Juliette de Meaux <jdemeaux@uni-koeln.de>

UCopenhagen Experimental Host-Pathogen Evolution

Postdoc in Experimental Host-Pathogen Evolution Department of Plant and Environmental Sciences Faculty of Science University of Copenhagen

A 2-year postdoc position is available at the Department of Plant and Environmental Sciences, Section for Organismal Biology, commencing 1 February 2016 or as soon as possible thereafter. The position is part of a grant from the Villum Foundation.

The study of host-shift-speciation has significant ramifications for epidemiology, biodiversity and the emergence of new diseases in plants, animals and humans. The project will use a newly established laboratory host-pathogen system of the fungal pathogen *Entomophthora muscae* and Dipteran insect hosts for exploring genome-wide modifications that follow controlled host shifts, including analyses of gene expression and epi-genetic modifications with bioinformatics methods.

The successful candidate will be working with Assistant Professor Henrik de Fine Licht within the Research Group of Insect Pathology and Biological Control at the department. This research group has close collaboration with other research projects on host-parasite

interaction at the Section of Organismal Biology and is affiliated with the Center for Social Evolution (CSE) at University of Copenhagen. The project pursues internationally competitive excellence in a multinational research environment where English is the working language. The department research laboratories are located at the Frederiksberg Campus of the University.

Please apply via the University link: <http://employment.ku.dk/faculty/?show=3D3D778802> Inquiries about the position can be made to Assistant Professor Henrik de Fine Licht, Department of Plant and Environmental Sciences, e-mail: hhdefinelicht@plen.ku.dk.

The position is open from 1 February 2016 or as soon as possible thereafter.

Interviews will be held from 4 to 8 January 2016

Henrik Hjarvard de Fine Licht, Assistant Professor, PhD Section for Organismal Biology, Department of Plant and Environmental Sciences University of Copenhagen, Thorvaldsensvej 40, 1871 Frederiksberg C. Denmark Tel: +45 3532 0097 Email: hhdefinelicht@plen.ku.dk

Homepage: <http://plen.ku.dk/english/employees/?id=3D3D194704&vis=3D3Dmedarbejder> hhdefinelicht@plen.ku.dk

UEdinburgh Human Statistical Genetics

We are looking for a bright and driven statistical geneticist to work on cancer susceptibility. We are specially interested in candidates willing to dedicate time to develop their own independent fellowship proposals in the broad area of statistical/quantitative genetics within our group.

The post description can be found at

https://www.vacancies.ed.ac.uk/pls/corehrrecruit/-erq_jobspec_version_4.jobspec?p_id=034768 If you would like to discuss further, please, contact me at Albert.Tenesa@ad.ac.uk .

Best wishes, Albert

TENESA Albert <Albert.Tenesa@ed.ac.uk>

UGlasgow EvolutionTraitsGenomes

For genome-fascinated, ich- and herp-friendly evolutionary biologists We have an excellent opportunity for a postdoctoral researcher at the University of Glasgow's Institute of Biodiversity, Animal Health & Comparative Medicine (IBAHCM) in the College of Medical, Veterinary and Life Sciences (MVLS), working in the Evolutionary Analysis Group and the research team of Kathryn Elmer (<http://www.gla.ac.uk/-researchinstitutes/bahcm/staff/kathrynelmer/>).

We are seeking a motivated, creative and enthusiastic postdoctoral researcher for a project on 'major evolutionary transitions'. The primary research effort will be genome research on a NERC-funded project studying the molecular mechanisms underlying different reproductive modes (live-bearing vs egg-laying) in squamate lizards. Complementary projects on speciation, evolution and genomics in 'ichs and herps' are also possible.

Bioinformatic experience and expertise in whole genome assembly and analysis is imperative, ideally with relevant experience contributing to a complex de novo genome project. Skills in quantitative trait mapping, comparative genomics, ecological and/or population genomics, and phylogenetics are also sought. Team working and positive attitude also a must. A track record of excellent genomic, evolutionary and/or ecological research is necessary, and on fishes and/or reptiles is a benefit. Candidates must have completed their PhD by the start of contract.

The position is for 1.5 years (with possibility for extension) starting as early as 1 Feb 2016, and is funded through the NERC grant 'Unravelling the genetics of a major evolutionary transition' to Kathryn Elmer, Maureen Bain and Rod Page.

IBAHCM is a stimulating and interactive research environment with a wealth of opportunities for discussion, collaboration and cutting edge research in evolution, ecology, and disease. The University of Glasgow ranks in the world's top 100 universities. The city of Glasgow is lively and cultural, and sits on the doorstep of the great outdoors of the Scottish Highlands, islands, and coast.

The official job description and application requirements are available on <http://www.jobs.ac.uk/job/AMM768/-research-associate/> and the University of Glasgow home-

page (under 'current vacancies'; <http://www.gla.ac.uk/-about/jobs/vacancies/>) at job reference 011679. Applicants must apply through one of those website sites. Informal inquiries to K. Elmer welcome in advance. The advertisement closes 4 January 2016.

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

UGothenburg MarinePopGenomics

Postdoc position 2 y in marine population genomics; local adaptation and speciation in Littorina Department of Marine Science, University of Gothenburg, Sweden

Closing date: 2015-12-01

A collaborative project between the research groups of Kerstin Johannesson and Roger Butlin are currently generating massive sets of genetic and phenotypic data in order to increase our understanding of the molecular mechanisms of local adaptation and evolution of reproductive isolation under gene flow.

We have phenotypic and genotypic data covering 3000 snails distributed over 4 contact zones of two ecotypes including exact positions, measurements of morphology and behaviour and are now generating individual genotype data using capture DNA sequencing. We are also generating pool-seq data from populations of the two *L. saxatilis* ecotypes from several different countries, in addition to samples of nearby species/subspecies. In addition, we are generating genotype data and morphological data for comprehensive analysis of quantitative traits (QTL mapping) deriving from F2 and F3 generations bred from crosses between the two ecotypes. There are also several different transcriptomes generated from separate tissues of the species. Simultaneously, we are making progress with the genome assembly of *Littorina saxatilis* and we expect a final draft assembly to be finished by the end of this year based on 600X coverage of Illumina sequencing, supported by 50X PacBio sequencing and genetic mapping. We now seek a person with strong competence and interest in bioinformatics and evolutionary genetics to contribute to the analyses of these large sets of phenotypic and genetic data. Further information at http://cemb.science.gu.se/News/-News_detail//postdoc-position-available-in-marine-population-genomics.cid1330454, or send a mail to Kerstin.Johannesson@gu.se

Kerstin Johannesson

Kerstin Johannesson <kerstin.johannesson@marine.gu.se>

UHaifa LocalAdaptation

We invite candidates to apply for two postdoctoral fellowships on local adaptation, phenotypic plasticity and gene expression on two closely related species of fire salamanders -*Salamandra atra* in Israel and *Salamandra atra* in Germany (see abstract below). This is a joint project funded by DIP (German-Israeli Project) in collaboration with Leon Blaustein (University of Haifa, Israel), Alan R. Templeton (University of Haifa, Israel), Sebastian Steinfartz (Technical University of Braunschweig), and Arne Nolte (Max Planck Institute for Evolutionary Biology, Plön). The title and abstract of the grant that funds this project is pasted below. The successful candidate(s) will be responsible largely for designing and conducting the ecological experiments and conducting and analyzing gene expression patterns. Ideally, one postdoc will have expertise in experimental and quantitative ecology (experience in amphibian ecology a plus but not essential) and the second postdoc will have expertise in ecological genomics. The work is largely to conduct research in Israel, and the opportunity exists to spend 1-2 months per year in Germany to conduct ecological field experiments and lab work on gene expression. Interested candidates should send a letter explaining research interests and how their background fits to this study, (2) cv and (3) arrange 2-3 letters of recommendation to both Leon Blaustein (leon@research.haifa.ac.il) and Alan Templeton (temple_a@wustl.edu).

Ecological genomics: Analysis of gene expression underlying parallel habitat adaptation in distinct salamander species

Abstract In a continuously changing world, adaptation to new or altering environmental conditions is one of the most elementary and important biological processes. Although we have much data on the consequences of habitat adaptation at the phenotypic and population structure levels, we are currently missing, with a few exceptions, deeper insights into the genetic architecture of habitat-dependent adaptation. The study of parallel adaptive evolution can illuminate underlying processes and mechanisms. Unlike any other vertebrate group, amphibian species can show a fascinating breadth of habitat-specific adaptations to aquatic and terrestrial

habitats. The research teams of this proposal have studied parallel ecological adaptation to larval reproductive habitats in two distinct species of fire salamanders - *Salamandra atra* in Germany and *Salamandra atra* in Israel. By integrating a strong ecological context with genomic approaches, this research proposal aims at extending the ecological-genetic framework of parallel habitat adaptation to the level of the transcriptome in order to simultaneously screen a large number of genes for patterns of evolutionary divergence. We will design species-specific oligonucleotide microarrays based on EST sequences of the larval transcriptomes for each species. These microarrays can then be used to analyze gene expression patterns under fully natural conditions and in experimental setups, whereby analyses are inspired by field studies that analyze the ecology of salamander larvae. As salamander larvae are accessible in large numbers and can be easily manipulated in common environment experiments, this study system is suited to explore gene-expression responses to habitat-specific cues or selection pressures in dedicated experiments reflecting distinct larval habitat types and ecological parameters. The resulting data will reveal whether plastic phenotypes contribute to adaptive phenotypic change and whether they are enhanced by the emergence of genetically fixed traits. In addition to traditional computational methods, we shall use a newly developed individual-centered approach, using a new vector-correlation measure to identify genes that are co-expressed in individuals as opposed to differential expression of genes across populations.

Leon Blaustein

Director, Kadas Green Roofs Ecology Center Head, Community Ecology Laboratory Institute of Evolution and Department of Evolutionary & Environmental Biology Faculty of Natural Sciences, University of Haifa 199 Abba Hushi Rd, Haifa, 3498838, Israel Tel. 972-4-8240736 (office); 972-4-9998881 (home) Cell: 054-268-8290; Institute Fax: 972-4-8246554 <http://leonblaustein.wikidot.com> <http://kadasgre.haifa.ac.il> Alan R. Templeton Charles Rebstock Professor Emeritus of Biology and Genetics Professor of Evolutionary and Environmental Biology

Department of Biology Washington University St. Louis, MO 63130-4899 USA Institute of Evolution, and Department of Evolutionary and Environmental Biology University of Haifa Haifa 31905, Israel p. 314-935-6868 f. 314-935-4432 e. temple_a@wustl.edu

<http://pages.wustl.edu/templeton>

UMichigan EvolutionaryGenomics

Two Postdoctoral Positions in Evolutionary Genomics at University of Michigan

Two postdoctoral positions are available in the laboratory of Jianzhi “George” Zhang at University of Michigan, Ann Arbor, Michigan.

Position I: Computational evolutionary genomics

The ideal candidate will use computational and theoretical approaches to study evolutionary processes at the genomic scale in any organism. Potential topics include but are not limited to (1) the molecular and genomic mechanisms of adaptation, (2) evolution of gene expression level and noise, (3) biological significance of RNA modification and processing such as RNA editing and alternative splicing, (4) evolution of noncoding RNAs, and (5) the emergence of systemic properties in evolution. The position requires a motivated individual with an interest in evolution and expertise in computational biology. Prior experience in analyzing next-generation DNA sequencing data or functional genomic data is desired.

Position II: Experimental yeast evolutionary genetics and genomics

The ideal candidate will use the budding yeast *Saccharomyces cerevisiae* and its relatives as model organisms to study evolutionary processes. Potential topics include but are not limited to (1) the fitness effects of various mutations including gene duplication, (2) genic/genomic basis of reproductive isolation, (3) evolution of dominance, (4) genetic mechanisms of heterosis, and (5) evolution of gene expression level and noise. The position requires a motivated individual with an interest in evolutionary genetics and experience in molecular genetics or genomics. Prior training in yeast genetics is a plus but not required.

Applicants should email a short statement of research interests, CV, and contact information of three references to jianzhi@umich.edu. For further information about the Zhang lab, see <http://www.umich.edu/~zhanglab/>. “jianzhi@umich.edu” <jianzhi@umich.edu>

UNebraska MolecularEvolution

POST-DOCTORAL POSITION in Molecular Evolution
University of Nebraska, Lincoln, NE

A post-doctoral position is available in the Storz lab at the University of Nebraska. This is one of two possible positions associated with NIH- and NSF-funded studies of molecular evolution. The projects are designed to assess the roles of different factors (mutational pleiotropy, epistasis) in shaping trajectories of protein evolution. The projects involve the use of protein-engineering approaches to explore the mutational landscape of hemoglobin function in experimentally defined regions of sequence space. The work integrates evolutionary analyses of sequence variation with functional analyses of native and recombinant hemoglobins from a diverse range of animal taxa. The post-doc’s work would involve ancestral sequence reconstructions, phylogenetic analyses, and comparative genomics, and there is also the opportunity to get involved in experimental aspects of the projects involving protein biochemistry.

The ideal candidate would have expertise in molecular evolution, bioinformatics, and genomics and an enthusiasm for integrative evolutionary biology.

For more information about research in the lab, see:

<http://storzlab.unl.edu/> If interested, please send a CV and contact information for a few references. The position is available now, but the start-date is flexible. Funding is potentially available for 3+ years. Salary will be determined by the NIH pay scale and will include full benefits. Please feel free to contact me (jstorz2@unl.edu) with any questions.

Lincoln is a great midwestern college town with high quality of life and 130+ miles of bike trails. The School of Biological Sciences at the University of Nebraska has a great core group of evolutionary biologists.

I will be attending the SMBE satellite meeting on protein evolution (8-11 Nov) and I would be happy to meet with prospective candidates in person.

Jay Storz

Jay F. Storz Susan J. Rosowski Associate Professor of Biology School of Biological Sciences University of Nebraska Lincoln, NE 68588

Phone: 402/472-1114 E-mail: jstorz2@unl.edu

storzlab.unl.edu Jay Storz <jstorz2@unl.edu>

UNebraska PopulationBiology POEFellow

POPULATION BIOLOGY POSTDOCTORAL RESEARCH FELLOWSHIP

THE UNIVERSITY OF NEBRASKA-LINCOLN is seeking applications for a 2-year postdoctoral position in the Population Biology Program of Excellence.

The goal of the Population Biology-POE Postdoctoral Fellowship is to stimulate synergistic interactions between faculty and postdoctoral scholars interested in the broad area of Population Biology. We are seeking applications from recent PhDs who show promise of conducting cutting edge research related to, and expanding upon, faculty research areas in the Ecology, Evolution & Behavior (EEB) section in the School of Biological Sciences (<http://biosci.unl.edu/research-specializations>). The POE also seeks to identify potential postdoctoral fellows who will enhance graduate education, serve as a model for graduate students in career development, and promote interactions among faculty at UNL. Qualified candidates are required to submit a single, coherent 2-year research proposal to be completed under the guidance of a faculty member in the Ecology, Evolution & Behavior (EEB) section in the School of Biological Sciences. The position does not include research funds so the extent of contributions from the faculty sponsor should be addressed in the proposal. While in residence, the postdoctoral fellow will be expected to lead a seminar, symposium or outreach project that will appeal to Population Biologists across campus. Applications must include a CV, a 1-page description of previous or current research and a 2- 3 page description of proposed research. Additional proposal guidelines and suggestions should be obtained from the proposed faculty sponsor. In addition, the applicant must arrange for two recommendation letters from non-UNL faculty, and one from the UNL faculty sponsor (a total of 3 letters) to be emailed to the address below. The expected salary will be \$45,000 per year with a start date of late August 2016. Priority will be given to applicants who have completed their degree and are new to UNL. Research descriptions for past and current POE postdoctoral fellows can be viewed at <http://biosci.unl.edu/population-biology/>. Application materials should be emailed to: Dr. Gwen Bachman at: gbachman1@unl.edu. The subject line

should read "Population Biology Post-doc application". Applications should be received by January 22, 2016. We anticipate notifying the successful applicant by February 12, 2016. We strongly encourage applications from women and members of minority groups. The University of Nebraska is committed to a pluralistic campus community through affirmative action, equal opportunity, work-life balance, and dual careers. We assure responsible accommodation under the Americans with Disabilities Act.

Kristi Montooth Associate Professor of Biology University of Nebraska kmontooth2@unl.edu

kmontooth2@unl.edu

UOxford PlantEvolutionaryGenomics

Postdoctoral Research Assistant in Plant Evolutionary Genomics

Department of Plant Sciences, South Parks Road, Oxford, United Kingdom

A two-year postdoctoral position. The work will be conducted in the labs of Simon Hiscock and Dmitry Filatov in the Department of Plant Sciences, Oxford. The project is aimed at understanding the genomic bases of rapid speciation and adaptation. The successful candidate will complete the final stages of the bioinformatic analyses of the *Senecio* genomes data, and be responsible for the preparation of associated manuscripts. Another important aspect of the work will be to extend preliminary bioinformatic analyses of genomic regions containing candidate genes for various phenotypic traits, including self-incompatibility (S-locus) and ray flower development.

Applicants should have a PhD or equivalent in evolutionary genetics/genomics, bioinformatics). Strong publication record. Extensive experience in bioinformatics, preferably genome analysis. Experience of standard molecular biology techniques (e.g. nucleic acid extraction, cDNA library construction, PCR, DNA sequencing etc.) High motivation. Ability to work independently and manage multiple tasks. Ability to manage the day-to-day running of a research project, including supervision of research students (undergraduate or postgraduate). Excellent oral and written communication skills, including ability to present research at national and international symposia. Experience of research in plant

reproductive biology. Experience in high-throughput sequence data analysis in any species. Expert knowledge of one or more scripting or programming languages (e.g. Perl, Python, Ruby, C++ or Java etc.).

This is a full-time position. Salary according to grade 7: 30,434 - 37,394 UK pounds per annum.

Excellent benefits include 38 days' leave.

The closing date for applications is 12.00 noon on Friday 20 November 2015

Informal enquiries: Dmitry.Filatov@plants.ox.ac.uk

Formal application (Vacancy ID : 120473): <http://www.plants.ox.ac.uk/vacancies> Prof. Dmitry A. Filatov, PhD

Associate Professor in Evolutionary Genetics Department of Plant Sciences, University of Oxford, South Parks Rd, Oxford OX1 3RB United Kingdom

[Dmitry Filatov <dmitry.filatov@plants.ox.ac.uk>](mailto:dmitry.filatov@plants.ox.ac.uk)

UPennsylvania EvolutionCellBiology

Title: UPennsylvania.Evolution&CellBiology

The Levine Lab (www.levinelab.io) at the University of Pennsylvania is recruiting a postdoctoral research fellow to start spring 2016. Our lab integrates evolutionary genetics, genomics, and cell biology to address questions in chromatin biology and epigenetics. The successful applicant will work on several exciting projects investigating the causes and functional consequences of rapid evolution of DNA packaging proteins in *Drosophila*. Only candidates with a PhD in Evolutionary Genetics/Genomics or Cellular/Developmental Biology will be considered. Preference will be given to candidates with experience in generating and analyzing next generation sequencing data.

The Levine Lab is housed in Penns Department of Biology (www.bio.upenn.edu), a diverse, interactive community with expertise in evolutionary genetics and genomics, cell biology, and molecular genetics. We are also part of the Epigenetics Program at Penns Perelman School of Medicine (www.med.upenn.edu/epigenetics/), whose participants include many leaders in the fields of chromatin biology and epigenetics.

Please send a cover letter, CV, and a list of three references as a single PDF to: levinelab.upennpostdoc@gmail.com.

Mia Levine <m.levine@sas.upenn.edu>

UPittsburgh AmphibianDiseaseEvolution

POSTDOCTORAL RESEARCH ASSOCIATE

University of Pittsburgh

AMPHIBIAN DISEASE ECOLOGY

The Richards-Zawacki lab at the University of Pittsburgh is seeking a Postdoctoral Research Associate to participate in collaborative, federally funded projects investigating the effects of climate and climate change on amphibian disease dynamics. The successful applicant will collaborate on projects aimed at clarifying the impacts of climate on the (1) distribution and virulence of *Batrachochytrium* pathogens and (2) the development of amphibian immune responses. The position will involve field work in Louisiana and Pennsylvania, as well as laboratory-based experiments and analyses. There is also the potential for participation in work in Panama focused on host-pathogen evolution. Much of the work that takes place in Pennsylvania will be based at the University of Pittsburgh's Pymatuning Laboratory of Ecology in Northwest Pennsylvania and the work in Louisiana will take place in or near Fort Polk in Central Louisiana. The incumbent will also have the opportunity to collaborate with the PI in developing K-12 outreach programs focused on climate change impacts on ecosystems.

The successful applicant will have (1) a Ph.D. in ecology, biology, or a related field, (2) the ability to organize and lead field studies at remote sites in the US, (3) strong writing skills, (4) the ability to work independently and collaboratively, and (5) a strong record of mentorship and outreach. Candidates with experience with microbiology and molecular techniques will be preferred.

Funds are available for one year with the possibility of additional years pending satisfactory progress. Starting salary is dependent upon experience.

The position is available starting January 2016 (negotiable). Review of applications will begin December 1, 2015 and continue until a suitable candidate is found.

To apply, please send (1) a cover letter, (2) CV, (3) statement of research interests/experiences, and (4) names and contact information for three references to Dr. Corinne Richards-Zawacki (cori.zawacki@pitt.edu).

The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer.

Corinne L. Richards Zawacki, Ph.D. email: cori.zawacki@pitt.edu Associate Professor, Department of Biological Sciences and Director, Pymatuning Laboratory of Ecology University of Pittsburgh

“At night I went out into the dark and saw a glimmering star and heard a frog and nature seemed to say, well do not these suffice?” - Ralph Waldo Emerson

Cori Zawacki <coririchards@gmail.com>

Uppsala 3 MolecularEvolution

Post-doctoral position in molecular evolution

Three two-year post-doctoral positions are available in the Ellegren lab at the Evolutionary Biology Centre, Uppsala University, Sweden (<http://www.ieg.uu.se/evolutionsbiologi/ellegren-se/?languageId=1>). Two positions are broadly defined as population genomics and one as molecular evolution (presented below), although there is some extent of overlap both in terms of concepts and data used among the positions.

We are interested in how sequence evolution and evolution of base-composition are related to factors such as epigenetic modifications, life history and recombination. Avian genomes are in focus for our research (allowing analyses of highly heterogeneous recombination landscapes) and we perform whole-genome re-sequencing of population samples to obtain detailed estimates of the site-frequency spectrum. Examples of on-going work are studies of methylation in avian genomes based on whole-genome bisulfite sequencing and how methylation affects substitution patterns and gene expression, how GC-biased gene conversion give genomic signals mimicking those of selection (and how signals of gBGC and selection can be separated), and the link between life history and rates of diversity/divergence. The specific questions to be addressed will be decided in dialogue with the successful candidate and will depend on her/his interests and background.

Recent publications from the group relating to the project include Weber et al 2014 *Genome Biology* 15:542 and 15:549; Mugal et al 2015 *G3* 5:441-447; Smeds et al 2015 *Nature Communications* 6:7330; Uebbing et al 2015 *Mol Biol Evol*, in press.

Suitable background to this position is a PhD geared to-

ward molecular evolution, population genetics, or bioinformatics. Experience from bioinformatic analyses of next-generation sequencing data is of merit.

Start date is flexible, ideally before January 1, 2016. The position can be extended for up to two more years. For full consideration, please send application materials by September 18, 2015. Interested candidates should submit the following to Hans.Ellegren@ebc.uu.se - a cover letter stating research interests, - CV, including publication record - a short (1-2 page) description of research accomplishments, - email addresses and phone numbers of three references Please feel free to contact me at the above email address with questions.

The venue for the position, the Evolutionary Biology Centre, is situated in central Uppsala. The working atmosphere is international with the great majority of PhD students and post-docs recruited from abroad. The Centre constitutes an exciting arena for multidisciplinary research in evolutionary biology in a broad sense, housing some 300 scientists and graduate students. The scientific environment with numerous seminars, journal clubs and social activities offer excellent possibilities for contacts and collaborations. Local platforms for high-performance computational analyses (<https://www.uppmax.uu.se/uppnex>), NGS, SNP genotyping and proteomic analyses (<http://www.scilifelab.se>) ensure immediate access to state-of-the-art technology. Uppsala University is the oldest university in Scandinavia and the city of Uppsala is a vibrant student town with beautiful and easy accessible surroundings conveniently situated close to Stockholm.

The Ellegren group is part of the Department of Evolutionary Biology (<http://www.ieg.uu.se/evolutionary-biology/>), which is a branch of the larger Department of Ecology and Genetics (<http://www.ieg.uu.se/?languageId=1>). The Department of Evolutionary Biology houses 8 independent research groups and about 25 PhD students, 25 postdocs, and several bioinformaticians. A common theme is that we address key questions in evolutionary biology, like speciation, local adaptation, life history evolution, genome and molecular evolution, using genomic approaches. We have tight connections with several other research groups in the Department of Ecology and Genetics within the Evolutionary Biology Centre.

Professor Hans Ellegren Department of Evolutionary Biology Evolutionary Biology Centre Uppsala University Norbyvägen 18D SE-752 36 Uppsala Sweden Email: Hans.Ellegren@ebc.uu.se LAB WEB PAGE: <http://www.ieg.uu.se/evolutionsbiologi/ellegren-se/?languageId=1> Hans Ellegren <hans.ellegren@ebc.uu.se>

UppsalaU EvolBactSymbiont

Postdoc, Molecular evolution - Bacterial endosymbionts

Uppsala University is an international research university focused on the development of science and education. Our most important assets are all the individuals who with their curiosity and their dedication makes Uppsala University one of Sweden's most exciting work places. Uppsala University has 45.000 students, 6,800 employees and a turnover of SEK 6,300 million.

The Department of Cell and Molecular Biology is one of the most international, broad and distinguished biomolecular departments in Europe, comprising six research programs covering subjects such as bioinformatics, microbiology and biophysics. The offered position is within the group of Lisa Klasson in the program of Molecular evolution.

Project description: The overall aim of our research is to study how symbiotic interactions between bacteria and animal hosts affect both partners' genetic material and evolution. This project will focus on developing methods to study the genetic material of bacterial symbionts that are found in very low abundance in their host. Read more about the group and our research at www.icm.uu.se/molekylar-evolution/klasjon-labb/
Requirements: The candidate should have a PhD in Biology with specialization in molecular biology, genetics or other relevant areas, not older than 3 years at the end of the application date. Special exemptions may apply. Potential candidates should be highly motivated and have a strong interest in method development and genomics. Previous experience of working with *Drosophila* and symbiotic bacteria is highly desirable. The candidate needs to be proficient in both written and spoken English.

The application should include a CV, a summary of research interest, contact details for at least two references and earliest possible date when the employment can start.

Appointment period: The position is for 2 years and will be filled as soon as possible.

For inquiries regarding the position please contact Lisa Klasson lisa.klasson@icm.uu.se

You are welcome to submit your application no later than November 23 2015, through the university ap-

plication system (i.e. not via email). Follow the link <http://www.uu.se/en/about-uu/join-us/details/?positionId=78140> and log in to apply.

lisa.klasson@icm.uu.se

UppsalaU MeioticDrive

POST-DOCTORAL POSITION IN THE EVOLUTION OF MEIOTIC DRIVE

A two-year postdoctoral position is available in the research group of professor Hanna Johannesson, at the Evolutionary Biology Centre (EBC), Uppsala University.

Conflicts arising from selfish genetic elements are important drivers for evolutionary change and innovation, and thus of crucial importance for genetic form and function. The main goal of this project is to study the evolutionary dynamics of meiotic drive in fungi. The study system is the Spore killers of *Podospora anserina*, a filamentous ascomycete. The ultimate aim of our research group is to combine large-scale genomic analyses with theoretical and experimental investigations to study the evolutionary dynamics of this meiotic drive system, both on a short and a long evolutionary timescale. This postdoc project will be developed after the interest of the applicant, but should preferably encompass a combination of experimental and genomic aspects. It will be a part of a collaborative effort within our research group.

Applicants should have a PhD in biology/evolutionary biology. Documented skills in molecular phylogenetics and/or population genetics, experimental and genomic work, especially using fungal model systems, is highly valued.

Start date is flexible, ideally February 1, 2016. The position may be extended for up to two more years.

Please send your application materials by November 25 to Hanna.Johannesson@ebc.uu.se. The application shall include: 1) a cover letter stating research interests, 2) a CV, including publication record, 3) a short (1-2 page) description of research accomplishments, and 4) name and contact information for three references.

Please feel free to contact me at the above listed e-mail with questions.

Hanna Johannesson <Hanna.Johannesson@ebc.uu.se>

URJC Madrid

PhylogeneticComparativeMethods

We have an open call for a 1 (+1) year postdoc position at Universidad Rey Juan Carlos (Mostoles, Madrid, Spain). The postdoc will work on plant domestication and functional traits, using phylogenetic comparative methods. Only for UE citizens (in-house rules).

All details below, including directions for applying. Deadline is very short, get in contact with ruben.milla@gmail.com if you are really interested in the position.

best wishes,

Ruben Milla

Phone: (+34) 914888517

ruben.milla@gmail.com

<http://rubenmilla.weebly.com> Post-doc position on Plant Domestication, Functional Traits, and Phylogenetic Comparative Methods

Location: Biodiversity and Conservation Area, Universidad Rey Juan Carlos (Móstoles, Madrid, Spain). The position will imply a few short trips to CEFÉ-CNRS (Montpellier, France).

Short description: Applications are invited for a 1-year postdoc (with possibility to extend for 1 additional year) on a project entitled “Understanding crop evolution through the lens of the comparative method”, funded by the Spanish Ministry of Economy, and carried out in collaboration with CEFÉ-CNRS (Montpellier, France). Using data available at the lab, and from literature and global databases, the project investigates whether trait profiles of crops are different from those of comparable sets of plant species, and whether phylogenetic divergences associated to domestication are functionally distinctive (see full project description below).

Tasks of the postdoc: 1) Compilation of a database of functional traits of crops, of their wild progenitors, and of unrelated wild species; 2) Build up of a set of phylogenetic trees that encompass the species compiled; 3) Carrying various phylogenetic comparative analyses of functional profiles as a function of domestication statuses of the species; 4) Write up and publication of manuscripts including the main results of the analytical stage; 5) Attend an international conference presenting

the results of the project. The position may also include performance of other duties occasionally.

Requirements and selection criteria: Applicants should have a PhD in ecology, agronomy, or evolutionary biology; and be citizens of, or hold a work permit in, an EU country. Selection criteria: amount and quality of the scientific production; experience in using the comparative method and R statistical environment, familiarity with functional trait frameworks, and good English writing and communication skills. Ability to communicate in Spanish will also be assessed as a complementary skill.

Salary: 24000/ year gross, before taxes (taxes vary depending on personal circumstances of the employee, ranging from 7-25% approximately).

When and how to apply: the position is open for application from until the 6th November 2015. Online-only application is not permitted, so prepare your documents well in advance of the deadline. Directions for applying can be found here (look for ref M1308, directions in English and in Spanish):

<http://www.urjc.es/investigacion/innovacion-y-transferencia-del-conocimiento/363-programas-y-convocatorias#convocatorias-con-cargo-a-proyectos> . Inquiries about procedures for applying can be posted to investigacion.personal@urjc.es. Include ref M1308 in the subject of your e-mail.

Attach the following items to your application: 1) short CV that includes information on your academic career and a complete publications list, with link to your Google Scholar profile; 2) Statement of research interests, future research plans and their relevance to this position, and e-mail of 2 colleagues with whom you have worked before, and can be approached for reference; 3) Copies of your PhD degree certificate and of your ID card and/or passport.

Selection process: After the expiry of the deadline for applications, the authorized recruitment manager will prioritize participants, and arrange online interviews with those taking the higher marks in the prioritization stage. The selected candidate is expected to enroll by early Jan-2016.

Information on the hosting Department is available via <http://www.escet.urjc.es/biodiversos/eng/staff-staff.htm>, and on the research groups leading the project here: <http://rubenmilla.weebly.com/research-pdfs.html>; and here: <http://www.cefe.cnrs.fr/fr/recherche/ef-ecopar/833-c/203-cyrille-viole> Contact: inquiries about the project can be e-mailed to Rubén Milla, ruben.milla@gmail.com. For procedures e-mail to investigacion.personal@urjc.es.



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>

USGeological LSC Bioinformatics

A postdoc position is available in the laboratory of Tim King (talking@usgs.gov) at the U.S. Geological Survey-Leetown Science Center (LSC). The term-limited (not to exceed 4 years) Biologist (Bioinformatics) position extends LSC and the USGS Ecosystems Mission Area by performing research advancing quantitative and molecular understanding of biological systems through established genetics and genomics research programs.

LSC seeks a recent (within ~2 years) Ph.D. graduate for immediate appointment to the position. Applicants must be U.S. citizens. Salary is commensurate on experience, ranging from \$76,378 (GS12-1) to \$118,069 (GS13-10).

The data scientist will contribute to ongoing LSC genomics research by facilitating the bioinformatic processing of massively parallel sequencing data associated with population genomics (e.g., RAD-Seq), mitogenomics, phylogenomics, digital gene expression (e.g., RNA-Seq), metagenomics, metabolomics, and other comparative genomic disciplines to assist in identifying ecologically and evolutionarily informative genomic variation at multiple levels of scale among declining, threatened, endangered, invasive, and/or nuisance species identified by Department of Interior (DOI) regulatory management bureaus.

Projects are as diverse and complex as transcriptional network and pathway analysis, comparative and evolutionary genomics, data integration, data management and extensive data mining, and detection of genes and networks related to organismal phenotypic plasticity and evolutionary adaptive potential. The scope and duties of the bioinformaticist relative to LSC genomics research efforts include the following:

1)

Develops and implements robust bioinformatics pipelines to assist LSC's molecular genetics and genomics researchers utilizing high-throughput sequencing datasets. As the Aquatic Ecology Branch lead in bioinformatics and computational genomics (e.g., experience with GWAS, eQTL, or CNVs), experience in

statistics (R or Matlab), and skills in multiple scripting or programming language (e.g., Python, Perl, Java, or C/C++) are utilized.

2)

Serves as the Aquatic Ecology Branch (AEB) lead in configuring and working on the Unix/Linux command line platform on multiple computer systems and clusters.

3)

Assembles transcriptomic data to identify and annotate expressed genes, using computational methods appropriate for RNA-based data and diverse non-model organisms (e.g., microbial to vertebrate genomes).

4)

Performs digital gene expression analysis (e.g., RNA-Seq) using accepted mapping approaches for the question at hand and evaluate statistically significant effects using state-of-science statistical approaches. Perform clustering approaches such as Principle Components Analysis, K-means clustering, and discriminant analysis on gene expression data. Perform Gene Set Enrichment Analysis and related methods to assess the functional relevance of differentially expressed genes.

5)

Analyzes digital gene expression data to identify biomarkers of physiological, immunological, or developmental processes that indicate the presence of phenotypic plasticity and genetic adaptive potential.

6)

Utilizes consensus sequence reconstruction, mapping/variant detection, and phylogenomic methods to evaluate evolutionary lineages among rare, endangered, or invasive taxa.

7)

Performs analysis of microbial and metazoan communities using whole genome annotation for taxonomic and functional assessment (e.g., functional metagenomics). Performs high-throughput analysis of the taxonomic composition of microbial and metazoan communities using phylogenetically informative loci (e.g., metabarcoding).

8)

Remains up-to-date of technological developments in the use of current genome sequencing platforms and bioinformatics processing of high-throughput data. Understands the capabilities and operation of DNA, cDNA, and RNA sequencers including, but not limited to the following platforms: Illumina NextSeq 500 and MiSeq, Ion Torrent Personal Genome Machine and PROTON,

Oxford Nanopore Technologies ' MinIon and PromethION, Roche 454 GS Jr., and Applied Biosystems ABI 3130 XL.

9)

Provides bioinformatics training, guidance and technical assistance in the development of products to AEB scientists and collaborators. Provides training to co-workers, both in a one-on-one setting and in groups on the use of bioinformatics tools. The bioinformaticist provides geneticists expert opinion and summarization of the various bioinformatics programs.

Interested parties should contact Dr. Tim King at 304-724-4450 or tlking@usgs.gov.

Fair Winds and Following Seas,

Tim L. King, Ph.D. U. S. Geological Survey Leetown Science Center Aquatic Ecology Branch 11649 Leetown Road Kearneysville, West Virginia 25430 Office Phone: 304.724.4450 Bioinformatics Laboratory: 304.724.4497 Facsimile: 304.724.4435 Personal Mobile Phone: 304.582.4622

“*It is not the strongest of the species that survives, *

— / —

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

USGS WestVirginia Bioinformatics

A postdoc position is available in the laboratory of Tim King (tlking@usgs.gov) at the U.S. Geological Survey-Leetown Science Center (LSC). The term-limited (not to exceed 4 years) Biologist (Bioinformatics) position extends LSC and the USGS Ecosystems Mission Area by performing research advancing quantitative and molecular understanding of biological systems through established genetics and genomics research programs.

LSC seeks a recent (within ~2 years) Ph.D. graduate for immediated appointment to the position. Applicants must be U.S. citizens. Salary is commensurate on experience, ranging from \$76,378 (GS12-1) to \$118,069 (GS13-10).

The data scientist will contribute to ongoing LSC genomics research by facilitating the bioinformatic processing of massively parallel sequencing data associated with

population genomics (e.g., RAD-Seq), mitogenomics, phylogenomics, digital gene expression (e.g., RNA-Seq), metagenomics, metabolomics, and other comparative genomic disciplines to assist in identifying ecologically and evolutionarily informative genomic variation at multiple levels of scale among declining, threatened, endangered, invasive, and/or nuisance species identified by Department of Interior (DOI) regulatory management bureaus. Projects are as diverse and complex as transcriptional network and pathway analysis, comparative and evolutionary genomics, data integration, data management and extensive data mining, and detection of genes and networks related to organismal phenotypic plasticity and evolutionary adaptive potential.

The scope and duties of the bioinformaticist relative to LSC genomics research include the following: 1) Develops and implements robust bioinformatics pipelines to assist LSC's molecular genetics and genomics researchers utilizing high-throughput sequencing datasets. As the Aquatic Ecology Branch lead in bioinformatics and computational genomics (e.g., experience with GWAS, eQTL, or CNVs), experience in statistics (R or Matlab), and skills in multiple scripting or programming language (e.g., Python, Perl, Java, or C/C++) are utilized. 2) Serves as the Aquatic Ecology Branch (AEB) lead in configuring and working on the Unix/Linux command line platform on multiple computer systems and clusters. 3) Assembles transcriptomic data to identify and annotate expressed genes, using computational methods appropriate for RNA-based data and diverse non-model organisms (e.g., microbial to vertebrate genomes). 4) Performs digital gene expression analysis (e.g., RNA-Seq) using accepted mapping approaches for the question at hand and evaluate statistically significant effects using state-of-science statistical approaches. Perform clustering approaches such as Principle Components Analysis, K-means clustering, and discriminant analysis on gene expression data. Perform Gene Set Enrichment Analysis and related methods to assess the functional relevance of differentially expressed genes. 5) Analyzes digital gene expression data to identify biomarkers of physiological, immunological, or developmental processes that indicate the presence of phenotypic plasticity and genetic adaptive potential. 6)

Utilizes consensus sequence reconstruction, mapping/variant detection, and phylogenomic methods to evaluate evolutionary lineages among rare, endangered, or invasive taxa. 7) Performs analyses of microbial and metazoan communities using whole genome annotation for taxonomic and functional assessment (e.g., functional metagenomics). Performs high-throughput analysis of the taxonomic composition of microbial and metazoan communities using phylogenetically informa-

tive loci (e.g., metabarcoding). 8) Remains up-to-date of technological developments in the use of current genome sequencing platforms and bioinformatics processing of high-throughput data. Understands the capabilities and operation of DNA, cDNA, and RNA sequencers including, but not limited to the following platforms: Illumina NextSeq 500 and MiSeq, Ion Torrent Personal Genome Machine and PROTON, Oxford Nanopore Technologies' MinIon and PromethION, Roche 454 GS Jr., and Applied Biosystems ABI 3130 XL. 9)

Provides bioinformatics training, guidance and technical assistance in the development of products to AEB scientists and collaborators. Provides training to co-workers, both in a one-on-one setting and in groups on the use of bioinformatics tools. The bioinformaticist provides geneticists expert opinion and summarization of the various bioinformatics programs.

Interested parties should contact Dr. Tim King at 304-724-4450 or tking@usgs.gov.

Fair Winds and Following Seas,

Tim L. King, Ph.D. U. S. Geological Survey Leetown Science Center Aquatic Ecology Branch 11649 Leetown Road Kearneysville, West Virginia 25430 Office Phone: 304.724.4450 Bioinformatics Laboratory: 304.724.4497 Facsimile: 304.724.4435 Personal Mobile Phone: 304.582.4622

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UToronto EcologyEvolutionaryBiology

The Department of Ecology and Evolutionary Biology at the University of Toronto invites applications for A Departmental Postdoctoral Fellowship in the areas of Ecology and Evolutionary Biology, broadly defined. The position may continue for two years, subject to review after one year, and can begin as early as Feb. 1, 2016 and no later than Sept. 1, 2016. The salary starts at \$40,500 Canadian per year plus benefits, with research expenses covered by the Post-Doctoral Advisor(s).

The Fellow will be a fully participating member in the Department. The Fellow may be asked to organize a workshop for graduate students, postdocs and faculty.

Candidates must identify and communicate with a potential advisor (or advisors) before they begin the application process. All full-time faculty members at the St. George (downtown) campus of the University of Toronto are eligible to serve as advisors (see a list of participating, potential advisors on this webpage: <http://www.eeb.utoronto.ca/about-us/-employment/postdocs/2016eebpostdoc.htm>). Opportunities for teaching in an upper level course may be available, if the candidate wishes to teach.

To apply, applicants must first contact and obtain the agreement of a faculty advisor (or co-advisors). Afterwards, applicants must submit a cover letter clearly indicating the proposed faculty advisor(s) and the date that they will be available to begin the position, a curriculum vitae that includes the names and e-mail addresses of two potential referees, and a short (1-3 pages) description of past research accomplishments and future research plans; all of this information should be provided in a single document in the order described here. Copies of two publications should also be provided. All application materials must be submitted as PDF's in a single email to: Elizabeth.Rentzelos.chairsec.eeb@utoronto.ca

Applications are due Dec. 10, 2015.

The University of Toronto is a leading academic institution in Canada with over 60 faculty members specializing in ecology and evolution. Strong links exist between the Department of Ecology and Evolutionary Biology and the Royal Ontario Museum, the Centre for Global Change, the School of the Environment, and the Faculty of Forestry. The University owns a nearby field station dedicated to ecological and evolutionary research (the Koffler Scientific Reserve, www.ksr.utoronto.ca). The department also has a partnership with the Ontario Ministry of Natural Resources that helps provide access to infrastructure, including lab facilities in Algonquin Provincial Park (www.harkness.ca), funding, and long-term data sets. Genomic analyses are supported by the Centre for the Analysis of Genome Evolution and Function (www.cagef.utoronto.ca) and as well as other facilities.

helen.rodd@utoronto.ca

UToronto Evolutionary Genomics

Short version: Aneil Agrawal and Stephen Wright would like to hire a PDF to work on evolutionary genomics of partial asexual plant.

Area of Research: Evolutionary Genomics of Duckweed
 Description of duties: The focal species is facultatively sexual and the long-term goal of the research program is to understand how sex, recombination, and selection interact to affect fitness and shape genome diversity. The initial projects will involve analysis of sequence data (GBS) of natural populations to quantify patterns of diversity and disequilibria within and among populations. These patterns, and how they change within and across seasons, will be examined to infer effective rates of sex and recombination and will be coupled with whole-genome data to infer selection on coding and non-coding regions. Experiments directly testing how sex alters the distribution of genotypic fitnesses are also planned. There is scope for the successful candidate to generate new experimental or genomic projects related to the overall goals of the research program.

Salary: \$40,000/year

Please note that should the minimum rates stipulated in the collective agreement be higher than rates stated in this posting, the minimum rates stated in the collective agreement shall prevail.

Required qualifications: The candidate must have a recent PhD in evolution, genetics, bioinformatics or a related field. The ideal candidate would have experience with next-generation sequence data and population genomics analyses, have good quantitative and computing skills, and have experience working with plants. However, consideration will be given to any motivated applicant interested in evolutionary genomics.

Application instructions

All individuals interested in this position must submit a CV, the names and contact info of three references, and a cover letter explaining the candidate's interest in the position and overall research aims and accomplishments to Prof. Aneil Agrawal (a.agrawal@utoronto.ca) by the closing date.

Closing date: February 1, 2016

The position will remain open until filled, however we will begin to review complete applications after Novem-

ber 24, 2015

Supervisors: Prof. Aneil Agrawal (<http://labs.eeb.utoronto.ca/agrawal/>)

Prof. Stephen Wright (http://labs.eeb.utoronto.ca/-wright/Stephen.I._Wright/Welcome.html)

Expected start date: April 1, 2016 with flexibility for an earlier or later start date

Term: 12 months with the potential for a renewed term assuming suitable progress

FTE: 100%

Employment as a Postdoctoral Fellow at the University of Toronto is covered by the terms of the CUPE 3902 Unit 5 Collective Agreement.

This job is posted in accordance with the CUPE 3902 Unit 5 Collective Agreement.

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities, members of sexual minority groups, and others who may contribute to the further diversification of ideas.

"a.agrawal@utoronto.ca" <a.agrawal@utoronto.ca>

UWestFlorida Molecular Evolution

Job Title: Post-Doctoral Research Associate

Location: University of West Florida (UWF), Pensacola, Florida

Salary: \$39,000-\$42,000 plus benefits

Job Description: The Janosik Laboratory in Department of Biology in the College of Science and Engineering at the University of West Florida is seeking a full time 2-year Post-Doctoral Fellow with a research focus in molecular evolution, population genetics, or bioinformatics. Applicants should be creative and independent, have good writing skills, a strong publication record, and have a demonstrated passion for evolutionary research and ecological genetics. The appointment can begin immediately and as a one-year appointment with possible extension to two years.

Applicants will be expected to develop and lead projects. Candidates will be working on a funded environmental DNA project of rare, invasive, and endangered species. Opportunities to explore phylogeographic projects with

both Gulf of Mexico fishes and invertebrates will be encouraged.

Applicants must hold a PhD degree from an accredited college or university in biological sciences or a similar field of study. Significant experience in using molecular tools to tackle evolutionary and phylogenomic questions is required. The ideal candidate would have strong laboratory skills with experience working in marine or freshwater systems. Boating experience is desired.

The University of West Florida is an Equal Opportunity/Access/Affirmative Action employer. Any individual requiring special accommodations to apply is requested to advise UWF by contacting ADA Compliance at 1-850-474-2059 (voice) or 1 850 857 6114(TTY).

A criminal background check is required for successful candidates. E-Verify requirements may apply for employment in certain positions. All applications for employment at the University are subject to Florida public records law.

To apply, please send a cover letter stating your areas of interest and career goals, a current C.V. with names and contact information for three individuals who will serve as references, and expected availability date as a single files in PDF format to ajanosik@uwf.edu. Applications will be accepted immediately and up until a candidate has been selected. Thank you! Alexis

Alexis Janosik <ajanosik@uwf.edu>

WorkshopsCourses

Barcelona PhenotypeToGenotype Sep6-9	130	Seattle SymposiumShortCourse Nov22	137
Bologna ProteinNetworksSystemsBiology Dec14-18	131	UFederalAmazonas SeedCollectionManagement Mar	137
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Barcelona PhenotypeToGenotype Sep6-9

Dear colleagues,

Apologies, there was a mistake in my previous e-mail about the course From Gentotype to Geno-

type, as the course description was wrong. Below you will find the correct one, or at its webpage: <http://www.transmittingscience.org/courses/-gen/quant-gen-shape/> “The aim of this course is to provide participants with an overview of quantitative genetics, with specific application to shape analysis and decomposition of phenotypic variation into components of genetic and environmental variation. The basic theoretical concepts of resemblance between relatives, heritability, estimates of selection, and geometric mor-

phometrics will be introduced. Practical lessons will enable participants to learn to use user-friendly (and not so user-friendly) software packages to estimate heritability, phenotypic and genetic variance covariance matrices, response to hypothetical selection, actual selection and QTL mapping.

Participants are encouraged to bring their own data for analysis and discussion in the course. Morphometric data involves any kind of quantitative shape data collected on individuals, such as linear measurements and/or 2D or 3D landmark coordinates. Pedigree files usually consist of text files with a list of three columns (individual ID, father ID, mother ID). Specific details about formatting these files will be provided during the practical lessons.”

This course is co-organized by Transmitting Science and the Institut Catalá de Paleontologia M. Crusafont. Place are limited and will be covered by strict registration order.

With best regards

Sole

Soledad De Esteban-Trivigno, PhD. Academic Scientific Transmitting Science
www.transmittingscience.org Soledad De Esteban Trivigno <soledad.esteban@transmittingscience.org>

Bologna ProteinNetworksSystemsBiology Dec14-18

ELIXIR-ITA, in collaboration with the University of Bologna (IT) is pleased to inform you that the applications for the upcoming training course on *Protein Networks and Systems Biology* are now open.

Full details at: <http://-bioinformaticstraining.pythonanywhere.com>
 Keynote Speakers: Prof. Rita Casadio (Università di Bologna, IT) Prof. Gianni Cesareni (Università di Roma “Tor Vergata”, IT)

Instructors: Luana Licata (Università di Roma “Tor Vergata”, IT) Alberto Calderone (Università di Roma “Tor Vergata”, IT) Pier Luigi Martelli (Università di Bologna, IT) Piero Fariselli (Università di Bologna, IT) Allegra Via (Sapienza Università di Roma, IT) Andreas Zanzoni (INSERM, Marseille, FR)

IMPORTANT DATES for this Course: Deadline for

applications: 30th November 2015 Start of candidate selection process: 15th November 2015 Course date: 14-18 December 2015

Venue: Dept. of Computer Science and Engineering IT Room (University of Bologna) - Via Ranzani 14/C, Bologna, IT

Candidate selection will start on November the 15th and those with an adequate profile will be accepted immediately, especially if they come from other countries (to allow them to find reasonably cheap flight tickets). Priority will be given to candidates from ELIXIR-ITA member institutions (see the list at the bottom) and ELIXIR nodes.

Course description The aim of this course is to familiarise the participants with the different approaches to the study of protein-protein interactions (PPIs), protein interaction networks and systems biology, providing hands-on training sessions as well. The course is structured in four sessions. The first one focuses on bioinformatics databases, tools, and web resources dedicated to PPIs. The second one provides a molecular point of view on protein-protein interactions (PPI), including how to exploit structural information in analyses and predictions. The third session is about graph theory, biological system modelling and tools to analyse PPI networks. Last session is about biomedical applications of PPI resources, methods and networks.

This course is aimed at students in master degree courses, PhD students, post-doctoral researchers and PIs who are working or planning to work in the field of protein interactions, protein interaction networks and/or systems biology. It consists of invited lectures, theory and practicals. Lectures, provided by invited speakers and instructors, are open to everyone provided they reserve one sit in advance. Practicals are limited to 20 participants.

Thank you for your interest,

The course organisers

Alberto Calderone (University of Rome Tor Vergata, IT)
 Giuseppe Profiti (University of Bologna, IT) Allegra Via (Sapienza University of Rome, IT)

“cb334@leicester.ac.uk” <cb334@leicester.ac.uk>

Finland StructuredPops Aug21-28

Dear Colleagues,

We are pleased to announce the 2016 edition of The Helsinki Summer School on Mathematical Ecology and Evolution, an EMS-ESMTB School in Applied Mathematics, which will focus on structured populations. The school will be held between 21 and 28 August 2016 in Turku, Finland. The core program consists of five series of lectures,

Mats Gyllenberg (University of Helsinki): Dynamics of structured populations
 Hans Metz (University of Leiden): Adaptive dynamics in structured populations
 Reinhard Bürger (University of Vienna): Population genetics in structured populations
 Hisashi Inaba (University of Tokyo): Infectious diseases in structured populations
 André de Roos (University of Amsterdam): Population and community ecology of ontogenetic development

All young researchers working in mathematical ecology can apply from all countries, especially from Europe and the Mediterranean. The school is aimed at graduate students of mathematics, but we also welcome students of biology with sufficient background in mathematics, as well as advanced undergraduates and postdocs.

The deadline for applications is 31 January 2016. For more details and application, see the school's website at

<https://wiki.helsinki.fi/display/BioMath/The+Helsinki+Summer+School+on+Mathematical+Ecology+and+Evolution+2016%3A+Structured+Populations>

Eva Kisdi, Mats Gyllenberg and Francesca Scarabel
 "eva.kisdi@HELSINKI.FI" <eva.kisdi@HELSINKI.FI>

Gabon Tropical Conservation Jul18-Aug8

The Central African Biodiversity Alliance (CAB-Alliance) is pleased to announce a three week undergraduate field course in tropical biology and conservation that will run from July 18th to August 8th (2016) in Gamba, Gabon. This field course will be hosted by the Gabon Biodiversity Program of the Smithsonian Conservation Biology Institute. Classroom and field instruction will be given on site by scientists from collaborating institutions including the University of New Orleans, Université des Sciences et Techniques de Masuku, Institut de Recherche en Ecologie Tropicale, University of California Los Angeles, Drexel University and Universitat de Halle-Wittenberg. A ten-week online seminar

will also be provided to all successful applicants prior to their departure, as well as instruction in the French language.

Course information and application forms can be found on the following website: <http://inst.uno.edu/gabon>
 Application deadline: Sunday, January 3rd, 2016

More information on CAB-Alliance can be found at: www.caballiance.org Course objectives:

This course will provide an introduction to tropical field biology and field research methods. U.S. and Gabon student participants will work with instructors to collaboratively design their own research project, collect and analyze field data, and present their findings as a research paper and oral presentation to other team members.

Course content:

- * Overview of conservation issues in central Africa
- * Principles of tropical ecology and evolution
- * Natural history of study organisms
- * Sampling design and methods
- * Navigation skills in the forest
- * Statistical analysis of ecological and genetic data
- * An introduction to DNA barcoding
- * Ecological niche modeling and GIS analysis

Requirements:

Currently registered as an undergraduate at a U.S. institution
 Minimum GPA of 2.7
 One semester of sophomore level ecology or evolutionary biology
 One semester of college-level French (can be taken in Spring 2016)
 Hold a valid passport and Gabon visa
 Obtain all necessary vaccinations
 Enjoy working in a multi-cultural setting
 Able to work under physically strenuous conditions
 All travel expenses (flight, lodging, meals) will be covered.

This course is optionally available for four credits (applicable course fees apply). All successful applicants will be required to pay a nominal registration fee of \$300.

For more information please contact: nanthony@uno.edu or kmorgan4@uno.edu
 This project is funded through NSF award OISE 1243524

"nanthony@uno.edu" <nanthony@uno.edu>

HongKong NGS May15-21

Dear colleagues,

Following the great success of the first workshop last year, our group is organising a more intensive (7 days) and complete training on analysing short read sequenc-

ing data. This is a hands-on international workshop and the objective remains the same: to provide each participant the knowledge and tools necessary to understand and analyse the Next Generation Sequencing Data and promote interactions through bioinformatics between different local and international institutions. By the end of the workshop, the attendees would gain the ability to analyse their own data.

Workshop contents: - Introduction to Linux/file formats - Quality analysis - Alignment and assembly - Variant analysis - Transcriptomics - Metagenomics/Metatranscriptomics

New content this year includes: - Whole-exome sequencing (WES) data analysis - Viral communities analysis - Genomic datasets visualisation - Individual meetings with participants

Details about the registration and the program could be found in the attachment and in our web-page.

Best regards

Gianni Panagiotou, PhD Associate Professor Group leader of Systems Biology & Bioinformatics, School of Biological Sciences The University of Hong Kong, Room 7N-08, Kadoorie Biological Sciences Building Pokfulam Road, Hong Kong, Tel: (852) 25 4795 76, Skype ID: gianni.panagiotou <http://sbb.hku.hk/> Editor-in-Chief - Computational and Structural Biotechnology Journal www.csbj.org

<https://scholar.google.com/citations?user=3Ha4KeAAAAAJ&hl=en> Gianni Panagiotou <gipa@hku.hk>

Malaysia Biodiversity Jan25-29

Dear colleagues

This is relevant to those working in the UK or Malaysia with interests in marine or coastal biodiversity.

The British Council is sponsoring a workshop to promote collaboration between the UK and Malaysia, to be held 25-29 January 2016 at the Universiti Sains Malaysia, Centre for Marine and Coastal Studies (CEMACS), located in Muka Head National Park, Penang, Malaysia.

The workshop theme is "Conservation of natural resources in coastal ecosystems for the benefit of humankind and global balance". The meeting will be focussed on building bilateral relationships between re-

searchers in both countries, facilitated by a team of mentors from both UK and Malaysian institutions.

Full funding (travel, accommodation, and meals) is available to selected participants. Eligible participants are those with less than 10 years post-PhD experience, in an established position at a recognised institution (i.e. academic faculty, or independent fellows / senior postdocs) in the UK or Malaysia.

Participants from both countries will be selected on the basis of their experience, motivation and potential contribution to the aims of the workshop. We welcome participants with expertise in any field relevant to the sustainable use of coastal ecosystems, natural resources and biodiversity, including, e.g. ecology, genetics, taxonomy, aquaculture, and social science, law, or others.

The application form (with draft programme and some more details) is available at:

<http://www.qub.ac.uk/qml/research/Malaysia> Application deadline is 29 November.

Please circulate this message to anyone who may be interested in attending!

Cheers,

Julia

– Dr Julia Sigwart Queen's University Belfast, Marine Laboratory

sabbatical address (2015-2018): University of California, Berkeley, Museum of Paleontology

www.qub.ac.uk/bb/People/DrJDSigwart/ Julia Sigwart <j.sigwart@qub.ac.uk>

Portugal cE3c Feb8-12

Subject: Portugal-cE3c-Course Applied Methods in Community Ecology-Feb8-12 2016

cE3c - Centre for Ecology, Evolution and Environmental Changes is organizing the Advanced Course Applied Methods in Community Ecology and Functional Ecology by Paulo A. V. Borges & François Rigal - February 8-12 2016 @ Lisbon, Portugal

Applied Methods in Community Ecology and Functional Ecology

Objectives: This five-days intensive course is mostly a practical course offering an overview on different community ecology and macroecological methods and software

See the PROGRAMME at: <http://ce3c.ciencias.ulisboa.pt/training/ver.php?id=2>

Course INSTRUCTORS: Paulo A. V. Borges (Assistant Professor at Azores University, researcher at cE3c) (<http://www.gba.uac.pt/quem/ver.php?id=4>)

& François Rigal (Assistant Professor at Environment and Microbiology Team, MELODY group, University of Pau and external collaborator of cE3c -IBBC, Azorean Biodiversity Group) (<http://ce3c.ciencias.ulisboa.pt/teams/user/?id=163>)

Intended audience

This five days intensive course will be open to a maximum number of 20 participants, being directed to PhD or MSc students in Ecology, Geography or related areas, and postdocs and other professionals working in related topics.

The course is free for 1st year PhD students in the Doctoral programme in Biology (FCUL), Biodiversity, Genetics and Evolution (BIODIV UL, UP) and Biology and Ecology of Global Changes (BEAG UL, UA). For information of fees for other participants see the programme details.

Deadline for applications: December 6, 2015

For additional details about the course and to know how to register, click here:

<http://ce3c.ciencias.ulisboa.pt/training/ver.php?id=2>

For more information about the course, please contact:

pborges@uac.pt

Subject: Portugal-cE3c-Course Measuring Biodiversity-Jan4-8 2016

cE3c - Centre for Ecology, Evolution and Environmental Changes is organizing the Advanced Course Measuring Biodiversity by Joaquin Hortal - January 4-8 2016 @ Lisbon, Portugal

Measuring Biodiversity: How to get data, assess its quality and measure different aspects of diversity

Objectives: This five-days intensive course offers an overview of the different ways to measure biodiversity, and provides tips for the stratification of primary biodiversity data and the construction of variables that describe its various facets. It also includes an in-depth review of the different types of data used to measure biodiversity and their problems and limitations.

See the PROGRAMME at: <http://ce3c.ciencias.ulisboa.pt/training/ver.php?id=6>

Course INSTRUCTORS: Joaquin Hortal (Senior Research Scientist, Museo Nacional de Ciencias Naturales

- CSIC, Madrid, Spain)(<http://jhortal.com/>) & Ana Margarida C. Santos (Marie Curie postdoctoral fellow, Museo Nacional de Ciencias Naturales - CSIC, Madrid, Spain)(<http://guidasanto1.wix.com/anamsantos2>)

Intended audience

This five days intensive course will be open to a maximum number of 20 participants, being directed to PhD or MSc students in Ecology, Geography or related areas, and postdocs and other professionals working in related topics.

The course is free for 1st year PhD students in the Doctoral programme in Biology (FCUL), Biodiversity, Genetics and Evolution (BIODIV UL, UP) and Biology and Ecology of Global Changes (BEAG UL, UA). For information of fees for other participants see the programme details.

Deadline for applications: December 11, 2015

For additional details about the course and to know how to register, click here:

<http://ce3c.ciencias.ulisboa.pt/training/ver.php?id=6>

For more information about the course, please contact:

jhortal@mncn.csic.es

Margarida Matos <mmmatos@fc.ul.pt>

Portugal EvolutionaryEcol 2016

Subject: Portugal-cE3c-Course Applied Methods in Community Ecology-Feb8-12 2016

cE3c - Centre for Ecology, Evolution and Environmental Changes is organizing the Advanced Course Applied Methods in Community Ecology and Functional Ecology by Paulo A. V. Borges & François Rigal - February 8-12 2016 @ Lisbon, Portugal

Applied Methods in Community Ecology and Functional Ecology

Objectives: This five-days intensive course is mostly a practical course offering an overview on different community ecology and macroecological methods and software

See the PROGRAMME at: <http://ce3c.ciencias.ulisboa.pt/training/ver.php?id=2>

Course INSTRUCTORS: Paulo A. V. Borges (Assistant Professor at Azores University, researcher at cE3c) (<http://www.gba.uac.pt/quem/ver.php?id=4>)

& François Rigal (Assistant Professor at Environment

and Microbiology Team, MELODY group, University of Pau and external collaborator of cE3c -IBBC, Azorean Biodiversity Group) (<http://ce3c.ciencias.ulisboa.pt/-teams/user/?id=163>)

Intended audience

This five days intensive course will be open to a maximum number of 20 participants, being directed to PhD or MSc students in Ecology, Geography or related areas, and postdocs and other professionals working in related topics.

The course is free for 1st year PhD students in the Doctoral programme in Biology (FCUL), Biodiversity, Genetics and Evolution (BIODIV UL, UP) and Biology and Ecology of Global Changes (BEAG UL, UA). For information of fees for other participants see the programme details.

Deadline for applications: December 6, 2015

For additional details about the course and to know how to register, click here:

<http://ce3c.ciencias.ulisboa.pt/training/ver.php?id=2>

For more information about the course, please contact: pborges@uac.pt

Subject: Portugal-cE3c-Course Measuring Biodiversity-Jan4-8 2016

cE3c - Centre for Ecology, Evolution and Environmental Changes is organizing the Advanced Course Measuring Biodiversity by Joaquin Hortal - January 4-8 2016 @ Lisbon, Portugal

Measuring Biodiversity: How to get data, assess its quality and measure different aspects of diversity

Objectives: This five-days intensive course offers an overview of the different ways to measure biodiversity, and provides tips for the stratification of primary biodiversity data and the construction of variables that describe its various facets. It also includes an in-depth review of the different types of data used to measure biodiversity and their problems and limitations.

See the PROGRAMME at: <http://ce3c.ciencias.ulisboa.pt/training/ver.php?id=6>
 Course INSTRUCTORS: Joaquin Hortal (Senior Research Scientist, Museo Nacional de Ciencias Naturales - CSIC, Madrid, Spain)(<http://jhortal.com/>) & Ana Margarida C. Santos (Marie Curie postdoctoral fellow, Museo Nacional de Ciencias Naturales - CSIC, Madrid, Spain)(<http://guidasanto1.wix.com/anamcsantos2>)

Intended audience

This five days intensive course will be open to a maxi-

imum number of 20 participants, being directed to PhD or MSc students in Ecology, Geography or related areas, and postdocs and other professionals working in related topics.

The course is free for 1st year PhD students in the Doctoral programme in Biology (FCUL), Biodiversity, Genetics and Evolution (BIODIV UL, UP) and Biology and Ecology of Global Changes (BEAG UL, UA). For information of fees for other participants see the programme details.

Deadline for applications: December 11, 2015

For additional details about the course and to know how to register, click here:

<http://ce3c.ciencias.ulisboa.pt/training/ver.php?id=6>

For more information about the course, please contact: jhortal@mncn.csic.es

Subject: Portugal-cE3c-Course Nature-Based Design Frameworks-Jan18-22 2016

cE3c - Centre for Ecology, Evolution and Environmental Changes is organizing the Advanced Course Nature-Based Design Frameworks by Gil Penha-Lopes, Hugo Oliveira & Luísa Nunes - January 18-22 2016 @ Lisbon, Portugal

Nature-Based Design Frameworks

Objectives: This five-days intensive course will introduce participants to different Nature-based bodies of knowledge and experience, such as the Biomimicry, Permaculture and Resilience topics. With almost 2 days per topic, the students will get a good feeling of how these topics see, do research and implement effective and sustainable solutions targeting a wide variety of societal, ecological and economic challenges.

See the PROGRAMME at:

— / —

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>

SCENE Glasgow TimeSeries May9-12

TIME SERIES MODELS FOR ECOLOGISTS AND CLIMATOLOGISTS

This course is being delivered by Dr Andrew Parnell, It will run from 9th - 12th of May 2016 at SCENE (the Scottish Centre for Ecology and the Natural Environment), Loch Lomond National Park, Glasgow.

Course overview: This course will cover model-based time series analysis with a particular focus on applications in ecology and climatology. All methods will be illustrated using the free, open-source software package R. Time Series data are ubiquitous in the physical sciences, and models for their behaviour enable scientists to understand temporal dynamics and predict future values. Participants will be taught a wide range of suitable time series models for both discrete and continuous time systems. The course takes a foundational Bayesian approach, which will enable participants to have a deeper understanding of the models being fitted, and to estimate all unknown quantities with uncertainty. Participants are encouraged to bring their own data sets for discussion with the course tutors.

This workshop is aimed at research postgraduates, practicing academics in ecology, climatology, evolution, meteorology, conservation and environmental management, and environmental professionals in government and industry.

The workshop is delivered over 8 half-day sessions (see the detailed curriculum below). The session will consist of Introductory lectures on the concepts and refreshers on R usage. Intermediate-level lectures interspersed with hands-on mini practicals and longer projects. Finally, round-table discussions about the analysis requirements of attendees (optional - bring your own data).

Assumed background: A basic understanding of statistical concepts. Such as regression modelling and generalised linear models. Some understanding of Bayesian Statistics is recommended but will be covered during the introductory sessions. Familiarity with R. Ability to import/export data, manipulate data frames, fit basic statistical models & generate simple exploratory and diagnostic plots.

Curriculum: Day 1: Basic concepts

Class 1: Introduction; some example time series datasets; prediction vs explanation

Class 2: An introduction to Bayesian Statistics.

Class 3: The AR(1) model

Practical: revision on using R to load data, create plots and fit statistical models

Round table discussion: understanding the output from a Bayesian model

Day 2: ARIMA modelling

Class 1: ARMA models for real data

Class 2: ARIMA and sARIMA modelling

Practical: An introduction to the Bayesian modelling language JAGS

Round table discussion: understanding and running a JAGS model

Day 3: Continuous time series

Class 1: Brownian Motion and its application to real data sets

Class 2: An introduction to Stochastic Volatility Modelling

Practical: Fitting continuous time models in JAGS

Round table discussion: Issues of continuous vs discrete time

Day 4: Advanced time series models

Class 1: Multivariate models

Class 2: Fractional differencing and models using differential equations

Practical: Running advanced models in JAGS

Round table discussion: Bring your own data set The cost is £450 including lunches and course materials. An all-inclusive option is also available at £625; this includes breakfast, lunch, dinner, refreshments, accommodation and course materials. Participants will need a laptop with a recent version of R Please send inquiries to oliverhooker@prstatistics.co.uk or visit the website <http://prstatistics.co.uk/time%20series%20models%20for%20ecologists%20and%20climatologists/index.html> Other upcoming courses - GENETIC DATA ANALYSIS USING SIAR; ; APPLIED BAYESIAN MODELLING FOR ECOLOGISTS AND EPIDEMIOLOGISTS; SPATIAL ANALYSIS OF ECOLOGICAL DATA USING R; ADVANCING IN STATISTICAL MODELLING USING R; PYTHON FOR BIOLOGISTS; INTRODUCTION TO

STATISTICS AND R FOR BIOLOGISTS; ADVANCES IN DNA TAXONOMY; BIOINFORMATICS FOR GENETICISTS AND BIOLOGISTS; MULTIVARIATE ANALYSIS OF SPATIAL DATA; MODEL BASE MULTIVARIATE ANALYSIS OF ABUNDANCE DATA; Oliver Hooker PR~Statistics

“oliverhooker@prstatistics.co.uk”

Seattle Symposium Short Course Nov22

As part of the 5th Seattle Symposium in Biostatistics, I will be offering a short course “Overview of Omics Data” on Sunday November 22.

Symposium and short course details at <http://symposium.biostat.washington.edu> Overview of Omics Data Sunday, November 22nd, 2015 8:30 am 12:00 pm

Biomedical science is being changed by the rapid introduction of large-scale omic data. In the genomics area, whole-genome SNP data have been used widely in disease association studies and are now being augmented by whole-genome sequence data. The benefits of collecting complete genetic data for large numbers of individuals are at least matched by the statistical challenges of addressing complex methods of generating data and the resulting noise in the data. This course will review data types and initial steps to prepare data for analysis.

– Bruce Weir Department of Biostatistics University of Washington Box 359461 Seattle, WA 98195-9461 Phone: (206) 221-7947

Bruce Weir <bsweir@uw.edu>

UFederal Amazonas Seed Collection Management Mar

Training course in the management and collection of seeds from tropical tree species

March 2016, Centro de Sementes Nativas do Amazonas, Universidade Federal do Amazonas

Registrations are open for a 10 days course about management and collection of seeds from tropical tree species

at Centro de Sementes Nativas do Amazonas (<http://www.csnam.ufam.edu.br>; <https://www.facebook.com/centrodesementes>) of UFAM (Universidade Federal do Amazonas, <http://www.ufam.edu.br>). The course is organized and coordinated by Prof Manuel de Jesus Viera Lima Junior and is designed for participants who are interested in activities such as collection, treatment and conservation of seeds from tropical trees, and is ideal for students, teachers and technicians involved in these kinds of activities. The course aims to improve the technical skills of participants in the area of processing seeds of tropical flora, as well as project management. It is taught by specialists (researchers, students, arboricultural technicians) who will train participants in species identification, ecology, phenology, uses and monitoring and in the techniques of collecting, handling and processing seeds. Excursions and other activities (such as tree climbing) are also planned. The idea is to solve the chronic difficulties experienced in undertaking the collection of seeds for the purpose of forest restoration. Additionally, this training awakens participants to the possibilities of entrepreneurship and income generation, when undertaking forest restoration projects, that are required by governmental law applicable to Legal Reserve and Riparian Preservation Areas. This course provides knowledge for the promotion and enhancement of Amazonian forest species, while encouraging the empowerment of students. Finally, it will highlight the benefits of further research into Amazonian flora and the potential forecological/economical balance that is provided by genetically diverse and well managed agroforestry systems.

Upon completion of these activities, participants will leave with the essential practical skills needed to effectively manage Amazonian tree seeds, and all successful participants will be accredited with a certificate from UFAM to demonstrate their achievements.

The course has a duration of 10 days during March 2016. The precise dates will be decided once the groups have been formed, based on the number of registrations.

The cost of the course is 900 US\$ including room, board and transfers related to the course. It does not include the flights to/from Manaus. It is possible to add to the course an amazing experience of eco-tourism in the Amazon forest, organized by The Federal University of Amazonas together with the expert team of EcoForest Adventure (<http://www.ecoforestadventure.com>). More than the training course, this option involves other 14 days of excursions and provides adventure, learning, self-development, team building and more than a little fun for a cost of 1400 US\$.

For more details and for registrations, please contact:

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U Gothenburg Marine Biodiversity Mar29-Jun5

Marine Biodiversity, Department of Marine Sciences,
 University of Gothenburg, Sweden

Get to know marine organisms!

In this course you will learn about marine organisms, how to identify them, their phylogeny and systematics, and their ecology. The course covers both animals and plants, and is based at the university's marine research stations (below). The university provides free accommodation at the field stations during the course (students pay only for food, and travel to and from the station).

The course starts March 29 and ends June 5 and includes the following:

-Introduction to phylogeny estimation and systematics (Per Sundberg) -Fish (N.N) -Invertebrates (Matz Berggren) -Zooplankton (Erik Selander) -Microalgae (Anna Godhe) -Macroalgae (Gunilla Toth)

The course is in many ways unique by its focus on actually seeing the animals and plants we study, and by its many hands-on sessions. The students will also learn, and experience, various field-sampling techniques used in marine biology.

Further information, please contact Per Sundberg tel: +46 (0)31 7863658 per.sundberg@marine.gu.se

The Lovén Centre The Sven Lovén Centre for Marine Sciences at the University of Gothenburg offers a comprehensive marine infrastructure, with several research vessels and smaller boats as well as two stations for research and education. Both stations are located in unique environments on the west coast of Sweden: Kristineberg by the Gullmar fjord and Tjärnö by the Koster fjord. The Lovén Centre brings together groups of researchers both from the University of Gothenburg and other Swedish

universities. We also welcome researchers and students from around the world and have good experience in assisting a wide range of research areas. Both stations have a well-developed running sea-water system, scientific laboratories of high international standard, high-tech instrumentation as well as accommodation and a restaurant. The Lovén Centre's research vessels and remotely operated vehicles enable to study and collect material from the deepest parts of the Swedish waters.

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U Leipzig Programming For Evolutionary Biology Feb10-27

Course on Programming for Evolutionary Biology

When: February 10th - February 27th 2016

Location: Leipzig, Germany

Application deadline: December 20th 2015

Detailed information about the course content and how to apply: <http://evop.bioinf.uni-leipzig.de/> In this intensive 18 days course, students will learn how to survive in a Linux environment, get hands-on experience in two widely used programming languages (Python and R), and statistical data analysis. The classes will be given by experts in the field and consist of lectures and exercises with the computer. The aim of the course is to provide the students with the necessary background and skills to perform computational analyses with a focus on solving research questions related to genomics and evolution. The philosophy of the course will be "learning by doing", which means that the computational skills will be taught using examples and real data from evolutionary biology for the exercises. During the course, students will also propose projects of their own interest and perform them as final projects in small groups under the supervision of a teaching assistant. This summer school is open for students from all countries and targeted toward PhD students and postdocs of evolutionary biology or related research fields with no or little programming experience who want to become proficient in computational evolutionary biology in a couple of weeks.

The course takes place at the University of Leipzig.

- Dr. Katja Nowick

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Weggis Switzerland AdaptationBioinformatics Feb28-Mar5

Reminder for the Winter School of Bioinformatics for Adaptation Genomics (B@G2016). The registration deadline is approaching fast. Applications need to be submitted by November 15th 2015.

Winter School - Bioinformatics for Adaptation Genomics (B@G 2016) VENUE: Alexander & Gerbi Hotel, Weggis, Switzerland DATE: February 28th - March 5th 2016

The most up-to-date information is available here: <http://www.adaptation.ethz.ch/education/winter-school-2016.html> AIMS AND OBJECTIVES The application of next-generation sequencing (NGS) technologies to non-model organisms is now well-established and has unlocked new frontiers for research on adaptation genomics. Despite recent technological developments enabling an increasing number of projects to use genome-scale data, the analysis of such complex data sets still raises substantial analytical hurdles, particularly for researchers with primarily an ecological and evolutionary background. Bioinformatic pipelines offer an invaluable resource to process genomic data, but their underlying rationale often remains hard to understand, which poses significant challenges for their rigorous use and accurate interpretation of the results. The B@G Winter School provides an opportunity for researchers to penetrate the 'black box' behind the complex bioinformatics approaches available for investigating adaptation genomics; from the programs and assumptions necessary to produce a high quality SNP dataset from raw NGS data, to the in-depth interpretation of methods designed to detect signature of selection, demographic patterns and associations between genotypes and environment, and/or phenotypes. B@G teachers are established scientists with a primary role in the development of widely used bioinformatic software. Consequently, participants of the B@G Winter School will gain insight into the foundations of these algorithms and what they do to the data, and will also receive advices on best

practice in experimental design and analysis.

AUDIENCE The School is primarily aimed at evolutionary biologists who want to gain deeper knowledge on state-of-the-art methods used to detect evolutionary patterns from genome-wide nucleotide data. Applications from early career researchers (PhD and post-doctoral level), as well as faculty with a background in ecology, evolution or genetics, will be considered. The workshop is particularly aimed at candidates with experience of the Unix environment and who have tried using bioinformatic pipelines to analyse genomic data. Participants will be requested to bring their own laptop with which to connect to the server for the practical sessions.

Lessons will include lectures on the theoretical background of the programs and practical demonstrations given by the instructor, followed by hands-on exercises performed by the participants under guided supervision. Computing activity will rely on individual connections to the Genetic Diversity Centre (GDC, ETH Zurich) server, which will provide resources for demonstrations and practical training. Emphasis will be given to interpreting the output of the programs, with time for discussion to facilitate interactions between the instructor and the audience.

VENUE The school will be hosted at the Alexander & Gerbi Hotel in Weggis, Switzerland (<http://www.alexander-gerbi.ch>). Weggis is a scenic town located on the shore of Lake Lucerne in central Switzerland. The location was chosen to provide a friendly and stimulating work environment. The area is known for its relaxing character and peaceful mountain scenery.

COST Total fee for participants is 750.- CHF. This includes tuition and accommodation in double rooms with full board (Breakfast, Lunch, Dinner and coffee breaks) at the Alexander & Gerbi Hotel during the workshop. Accommodation in single rooms may be available upon request and with additional costs.

SCHOOL LECTURERS Dr. Jonathan Puritz - Harte Research Institute, USA Mr. Erik Garrison - Wellcome Trust Sanger Institute, UK Dr. Matteo Fumagalli - University College London, UK Prof. Dr. Daniel Wegmann - University of Fribourg, Switzerland Dr. Arthur Korte - Center for Computational and Theoretical Biology, University Würzburg, Germany

REGISTRATION The workshop will be limited to 30 participants. We ask that all interested participants submit a cover letter (1 page max) detailing their research interests, their level of bioinformatics experience, and their motivation for attending the workshop, as well as their CV (2 pages max) to BioinfAdapt@env.ethz.ch by November 15th 2015. Participants will be notified of

the outcome of the selection process by November 27th 2015. ORGANISERS

Funded by - Center for Adaptation to a Changing Environment (ACE), ETH Zurich, Switzerland - Institute of Evolutionary Biology and Environmental Studies, University of Zurich, Switzerland

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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>

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 formatted) the message will be sent to me at Golding@McMaster.CA and processed later. In either case, please do not expect an instant response.

Afterword

This program is an attempt to automatically process a broad variety of e-mail messages. Most preformatting is collapsed to save space. At the current time, many features may be incorrectly handled and some email messages may be positively mauled. Although

this is being produced by L^AT_EX do not try to embed L^AT_EX or T_EX in your message (or other formats) since my program will strip these from the message.