E v o l D i r

December 1, 2018

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

Bialowieza Woodpeckers 2019 DeadlineExtended

Registration and abstract submission for the 8th International Woodpecker Conference in Bia³owie¿a National Park (BNP) to be held from 16 to 20 March 2019 has been extended to November 25th. Abstracts must be submitted online at https://www.woodpeckers2019.com, where participants can also register and find other important information (venue, deadlines, fees, etc.). The conference will focus on the conservation and ecology of woodpeckers and will be jointly organized by Siedlce University, Museum and Institute of Zoology PAS Warsaw, Opole University, Adam Mickiewicz University Poznañ, Warsaw University of Life Sciences (all Poland) and the Special Interest Group (SIG) Woodpeckers of the German Ornithological Society (DO-G). The conference aims to bring together woodpecker researchers from across the globe and to provide an international forum for discussion on how woodpecker research can improve our understanding of behavior, ecology and conservation sciences.

For inquiries, please contact Dorota Czeszczewik (dorota.czeszczewik@uph.edu.pl), head of the local organizing committee, or Gilberto Pasinelli (gilberto.pasinelli@vogelwarte.ch), chair of the scientific committee.

Looking forward to seeing you in Bia³owie¿a!

Pasinelli Gilberto <gilberto.pasinelli@vogelwarte.ch>

CarletonU InfectiousDiseaseEvolutionaryGenetics Apr4-5

We'll be hosting a conference on the Evolutionary Genetics of Infectious Disease at Carleton University in Ottawa, Canada, on April 4-5 2019, made possible with support from the Fields Institute. We have an excellent set of invited speakers, and we will select ~8 additional talks from submitted abstracts. Please find more information, and registration, at:

http://www.fields.utoronto.ca/activities/18-19/-

evolutionary-genetics Our invited speakers are:

Lindi Wahl (Western University)

Eduardo Taboada (Public Health Agency of Canada)

Nicolas Rodrigue (Carleton University)

Art Poon (Western University)

Susanne Pfeifer (Arizona State University)

Nicole Mideo (University of Toronto)

Jeffrey Jensen (Arizona State University)

Aleeza Gerstein (University of Manitoba)

Hope to see you there!

Alex Wong

Associate Professor Department of Biology Carleton University

carleton.ca/eme twitter.com/wong_lab

AlexWong@cunet.carleton.ca

GordonConference EcolGenomics Jul14-19

Gordon Research Conference- Ecological and Evolutionary Genomics

How Genomes Illuminate Our Understanding of Ecological and Evolutionary Processes

July 14 - 19, 2019

Chairs :

Christian Landry and Angela Douglas

Vice-chairs :

Camille Berthelot and Sarah D. Kocher

University of New England

Maine, USA

https://www.grc.org/ecological-and-evolutionary-genomics-conference/201 9/

Genomics tools have never been so powerful and accessible to biologists interested in how the interplay between ecological and evolutionary forces is shaping biodiversity. The 2019 Gordon Research Conference on Ecological and Evolutionary Genomics will explore how the genome-scale processes that underpin organismal phenotypes interact with ecological and evolutionary processes over multiple spatiotemporal scales. The meeting will be

preceded by a Gordon Research Seminar (GRS), which will provide opportunities for early career researchers (students and postdocs) to present their projects and will include a special mentorship session.

Topics highlighted at the meeting will include: the ecological and evolutionary significance of novel genes and variation in genome architecture, including genomic conflicts; the role of hybridization and introgression as drivers of diversity; genome-scale perspectives on the role of the microbiome in host adaptations; and the increasing contribution of genomics to explanations of ecosystem function. This meeting will also bring the latest technological developments in genomics and genome manipulation, emphasizing their application to non-model species. Join us to participate in creative discussions in an inclusive social and scientific atmosphere, to empower the future research in the field.

Co-chairs, Christian Landry (Université Laval) and Angela Douglas (Cornell University) along with co-vice chairs, Camille Berthelot (École Normale Supérieure, Paris) and Sarah Kocher (Princeton University) invite you to the University of New England on the beautiful seashore campus of Biddeford in Maine. The meeting will bring together researchers at all career stages and working on a wide diversity of organisms. A subset of the submitted abstracts will be selected for short talk presentations and a limited number of travel grants will be available. We are looking forward to your participation in the conference at Biddeford in 2019!

Session and confirmed invited speakers Keynote Session: Genome dynamics and adaptation Nancy Moran/Rasmus Nielsen Genomic Conflicts and Selfish Elements Harmit Malik/Judith Mank Genomics of Novelty and Innovation Abderrahman Khila/Manyuan Long/Anja Spang Microbiomes and Adaptation Denise Dearing/Irene Newton Evolution of Genome Architecture Adam Eyre-Walker/Tanja Slotte >From Genomes to Ecosystem Processes Alison Buchan/Victoria Orphan Genomics of Rapid Evolution Flaminia Catteruccia/Laurent Excoffier/Pleuni Pennings Hybridization and Introgression as Drivers of Diversity Jeffrey Good/Pam Soltis New Technologies and Approaches to Genotype-to-Phenotype Mapping Gianni Liti/Jason Rasgon

Christian Landry, PhD Professeur Chaire de Recherche du Canada Biologie évolutive des systèmes cellulaires // Canada Research Chair Evolutionary Cell and Systems Biology Département de Biologie Institut de Biologie Intégrative et des Systèmes PROTEO Local 3106, Pavillon Charles-Eugène-Marchand 1030, Avenue de la Médecine Université Laval Québec (Québec) G1V 0A6 Canada http://landrylab.ibis.ulaval.ca/ Téléphone:

418-656-3954 Télécopieur: 418-656-7176

Christian Landry <Christian.Landry@bio.ulaval.ca>

Hinxton UK MathStatMolBiol Apr25-26

We are pleased to announce that registration has opened for the 30 years edition of the annual Workshop on Mathematical and Statistical Aspects of Molecular Biology (MASAMB) 2019.

Registration links and other information are available here:

https://www.ebi.ac.uk/about/events/2019/workshop-mathematical-and-statistical-aspects-molecular-biology Conference: MASAMB 2019 Dates/times: 11.00 Thursday 25th April - 15.00 Friday 26th April 2019 Place: European Bioinformatics Institute, Hinxton, UK Accommodation: limited on-site accommodation will be assigned in order of registration

With best wishes from the Local Organising Committee:

Nick Goldman (EMBL-EBI) Gos Micklem (CCBI, University of Cambridge) Nicola De Maio (EMBL-EBI)

– Nicola De Maio EMBL-EBI +44 7721674013 https://-www.ebi.ac.uk/about/people/nicola-de-maio Nicola de maio <demaio@ebi.ac.uk>

Hungary EvolutionOfSexRoles Jan10-13

NEW DIRECTIONS IN EVOLUTIONARY RESEARCH OF SEX ROLES - II. ELVONAL Conference 10-13 January 2019, DEBRECEN, HUNGARY

Registration closes 10 December 2018

The Conference will take place between 10th and 13th January 2019 in Debrecen (Hungary). The Conference will start on Thursday 10 January with a slide-show and a Hungarian traditional dinner, will include two days of scientific talks by top scientists, post-docs and students (Friday and Saturday), and an optional bird watching trip on Sunday 13 January to Hortobagy National Park, a UNESCO World Heritage Site, with a social event.

The conference will focus on behavioural aspects of sex role evolution: courtship, display behaviour, competition for mates, pair bonding and parenting. Speakers will cover a range of organisms and will use a variety of research tools and methodologies. We invited elite scientists to discuss recent advences in evolutionary studies of sex roles. Invited speakers include Dr Luc Bussiere (University of St Andrews), Dr Claudia Fichtel (German Primate Center, Gottingen), Dr Elisabet Forsgren (Norwegian Institute for Nature Research, Trondheim), Dr Laszlo Garamszegi (Donana Biological Station, Seville), Prof Oliver Kruger (Bielefeld University), Dr Natalia Pinchuk (Belarus Academy of Sciences, Minsk), Dr Alejandro Serrano-Meneses (American University, Puebla) and Dr Liu Yang (Sun Yat-sen University, Guangzhou).

The conference will also offer opportunities to young scientists and students to present their work, and discuss potential projects with senior scientists. The Conference will be hosted by the Debrecen Academy of Sciences.

Registration is free. Registration deadline: 10th December 2018. Contact: elvonalconference@gmail.com

We look forward seeing you in Debrecen.

Karola Szeman, Fanni Takacs & Tamas Szekely

Tamás Szekely, Professor of Biodiversity Royal Society Wolfson Research Merit Award Holder Dept of Biology and Biochemistry, University of Bath, Bath BA2 7AY, UK 01225 383676 (phone), 01225 386779 (fax), T.Szekely@bath.ac.uk (email) http://www.bath.ac.uk/-bio-sci/contacts/academics/tamas_szekely/ ResearcherID I-7089-2016, ORCID 0000-0003-2093-0056 Founder, Maio Biodiversity Foundation, Republic of Cape Verde http://www.maioconservation.org Tamas Szekely <T.Szekely@bath.ac.uk>

Leiden BioDiversity Oct21-25 CallForProposals

Call for Proposals 2019 https://drive.google.com/-drive/folders/19hN5YccmFTANoya2dH2tsFmTO_R–_AR?usp=sharing&ts[e43f46 Dear Colleagues,

We are extremely pleased to announce the 2019 open digital science week on biological and geological diversity, biodiversity_next, which will take place at the Stadsgehoorzaal in Leiden, The Netherlands, 21V25 October 2019. You are invited to submit proposals for breakout sessions events (e.g., symposia, workshops, interest

group meetings, panel discussions).

For full consideration, please submit your proposal via this form by end of day Friday, 30 November 2018.

Gila Kahila <gila.kahila@mail.huji.ac.il>

London CRISPR Evolution Feb18-19

We are pleased to announce our scientific meeting on CRISPR Ecology and Evolution, sponsored by The Royal Society and taking place 18-19 February 2019.

This meeting will focus on the evolutionary ecology of CRISPR-Cas adaptive immune systems of prokaryotes, and their applications for ecological engineering including the associated ethical and policy considerations. This meeting will bring together scientists from diverse disciplines and act as a platform to discuss outstanding evolutionary and ecological questions in the field of CRISPR-Cas, including co-evolution between CRISPR systems and bacterial viruses in natural systems and laboratory evolution, and the evolutionary history of CRISPR-Cas.

Registration is free and the meeting will take place at The Royal Society, London, 6-9 Carlton House Terrace, London, SW1Y 5AG.

More information on registration and abstract submission can be found here:

https://royalsociety.org/science-events-and-lectures/-2019/02/crispr-ecology-evolution/   The organising committee,

Dr Edze Westra, Dr Rachel Whitaker, Dr Sylvain Gandon & Dr Stineke van Houte

"Van Houte, Stineke" <C.van-Houte@exeter.ac.uk>

Manchester SMBE Jul21-25 SymposiaDeadlineExtended

The deadline for proposal submission is November 09, 2018.

SMBE 2019 Call for Symposia - Submission Deadline Extended We're delighted to announce that the Society for Molecular Biology & Evolution is now accepting proposals for symposium topics for the 2019 Annual Meeting, taking place in Manchester, United Kingdom, from 21st to 25th July 2019.

Proposals should span the range of interests of SMBE members, including exciting new scientific developments, and should represent the geographic and gender diversity of our membership. For each accepted symposium, SMBE will provide partial financial support to help attract outstanding invited speakers.

For more details and to submit your proposal please visit the meeting website at *http://smbe2019.org/call-for-symposia/* The *extended deadline for proposal submission is November 09, 2018*. Successful applications will be confirmed by the middle of November.

As always, SMBE is keen to ensure good international representation.

Support will be provided to all delegates who may require additional documentation to secure a visa to the UK. Please visit *http://visahq.com/* to check if you require a visa for the United Kingdom.

If you have any questions, please email *smbe2019@mci-group.co*. We look forward to your participation in the SMBE Annual Meeting next July in Manchester, UK.

Sincerely,   The   Local   Organising   Committee SMBE 2019 Manchester, UK Society for Molecular Biology & Evolution smbe@allenpress.com <smbe@allenpress.com?subject=> *Share this email:* < https://t.e2ma.net/share/outbound/e/p7pkp/-duvmg1 >

View this email *online* < https://t.e2ma.net/-message/p7pkp/duvmg1 >.

810 East 10th Street Lawrence, KS | 66044 US <#m_-8951921894245836180_> This email was sent to smbe.contact@gmail.com.

To continue receiving our emails, add us to your address book. < http://smbe.contact@gmail.com >

Dr Lulu Stader Executive Administrator, Society for Molecular Biology and Evolution smbe.contact@gmail.com <smbe.meetings@gmail.com>

"Lulu   Stader   (SMBE   admin)" <smbe.contact@gmail.com>

NHM London YoungSystematists Nov23

Reminder: Registration for non-presenting attendees still open!

20th YOUNG SYSTEMATISTS' FORUM

#2018YSF

Date: Friday, 23 November 2018, 9:30 am

Venue: Flett Lecture Theatre,

Natural History Museum, London, UK

http://systass.org/young-systematists-forum/ The annual Young Systematists' Forum represents an exciting setting for Masters, PhD and young postdoctoral researchers to present their data, often for the first time, to a scientific audience interested in taxonomy, systematics and phylogenetics. This well-established event provides an important opportunity for budding systematists to discuss their research in front of their peers within a supportive environment. Supervisors and other established systematists are also encouraged to attend.

Prizes will be awarded for the most promising oral and poster presentation as judged by a small panel on the day.

Registration is FREE.

Abstract submission closed on Friday October 26th. We have a fantastic selection of 16 talks spanning across the tree of life on phylogenetics, systematic methods, phylogenomics, time-trees and biogeography. But registration for non-presenting attendees is still open.

To register send an e-mail to YSF.SystematicsAssociation@gmail.com , supplying:

- Name - Institutional Affiliation - Academic stage (e.g., Masters, PhD, postdoc, PI) - Gender (optional)

Again the YSF will be held the day after the Molluscan Forum (http://www.malacsoc.org.uk/-MolluscanForum.htm) also at the Natural History Museum. This has been arranged so both meetings can be attended, although if attending both you will have to register for both meetings separately.

All registered attendants will receive further information about the meeting, including abstracts, by e-mail one week in advance. This information will also be displayed on the Systematics Association website (http://-/systass.org/young-systematists-forum/).

See you in London!

YSF Organising Team Ellinor Michel, Xavier Aubriot, Karen Siu Ting, Yvette Harvey

YSF 2018 <ysf.systematicsassociation@gmail.com>

Okinawa EvolutionSwarmBehav Nov20-22

We are pleased to announce an upcoming conference:

SWARM 2019: The 3rd International Symposium on Swarm Behavior and Bio-Inspired Robotics

The meeting will be held Nov 20-22, 2019, at the Okinawa Institute of Science and Technology (OIST, www.oist.jp), in Okinawa, Japan.

Scope: Evolution by natural selection has engineered living organisms to have extraordinary abilities. These abilities are present at the level of the organism, due to the diverse and inventive biomechanical and control designs that are found in nature. Abilities can also emerge from the interactions of many organisms; a swarm can perform many functions that its component individuals cannot possibly accomplish alone. For example, in addition to the ability to adapt to the environment, a swarm can construct a suitable environment for its own advantage. The constructive understanding of intelligence of living things is a very interesting approach from the point of view of biology and engineering. Thus, the natural engineering of evolution provides inspiration for human engineering, and the reverse engineering of nature can help us better understand biology.

The aim of this symposium is to foster connections between biologists and engineers who are interested in the engineering of living things, from biomechanics to swarm intelligence, and the perpetuation of a new academic field by integrating biology and engineering. In addition to the main-themes of understanding swarm behavior and bio-inspired robotics, in the next iteration we also plan to add elements of bioimaging and functional morphology (creating libraries of biological engineering to inspire human engineering). Although this scope is broad, the aim of the symposium is not to cover these fields comprehensively but rather bring scientists from different fields together to recombine in interesting ways.

Confirmed Plenary Speakers:

Deborah Gordon (Stanford) Francesco Bullo (UC-Santa Barbara) Takashi Ikegami (U. of Tokyo) Marco Dorigo (Université Libre de Bruxelles)

Detailed information on registration and other details will be available later, please check the symposium website for future updates.

http://arilab.unit.oist.jp/swarm2019 On behalf of the SWARM 2019 Organizing Committee: Kazuki Tsuji, Evan Economo, Fumitoshi Matsuno, Kazuhiro Okhura, and Toru Namerikawa.

Evan P. Economo Assistant Professor Biodiversity and Biocomplexity Unit Okinawa Institute of Science and Technology Graduate University 1919-1 Tancha Onnason Okinawa, Japan 904-0495 http://arilab.unit.oist.jp/ www.antmaps.org evaneconomo@gmail.com

Oxford PopulationGenetics Jan3-6

This is a reminder that registration for the 52nd Population Genetics Group (aka Pop Group) will close on the 23rd November, and talk slots are almost full (20 remaining). The meeting will be held in Oxford, UK, January 3rd-6th 2019. Although named Population Genetics Group in the 1960s the meeting now covers most areas of evolutionary genetics and genomics.

Plenary speakers are: Chris Jiggins, Tami Lieberman, Pleuni Pennings, and Gunter Wagner

Please see http://populationgeneticsgroup.org.uk for more details, to register and submit abstracts, and book accommodation.

Attendance at the conference dinner is - unfortunately - limited to 200 people, so register soon to avoid disappointment.

Further announcements will go out on Twitter (@popgroup #pgg52) and Evoldir shortly.

We look forward to welcoming you in Oxford soon!

Ravinder

(on behalf of the PopGroup52 committee).

Ravinder Kanda <ravinder.kanda@gmail.com>

Portland Oregon Sex Asex Jun2-4

SAVE THE DATE for AGA2019

Sex & Asex: The Genetics of Complex Life Cycles 2-4 June 2019, Portland, Oregon

Many organisms across the tree of life have complex life cycles that include both sexual and asexual reproduction, or that are obligately asexual. Our planned speakers have been untangling the evolutionary effects of using one or both of these disparate reproductive modes.

Join AGA President Maria Orive at beautiful McMenamins Edgefield. Confirmed speakers include:

Key Distinguished Lecturer Sally Otto

Rebecca Zufall, University of Houston (Tetrahymena)

Stacy Krueger-Hadfield, University of Alabama, Birmingham (seaweeds)

Matthew Hartfield, University of Edinburgh (theory)

Laura Katz, Smith College (ciliates)

Tanja Schwander, Universite de Lausanne, Switzerland (stick insects)

Curt Lively, Indiana University (snails)

Registration opens in January. There will be several registration and travel awards for students presenting posters. Watch for details on the AGA website http://www.theaga.org   Anjanette Baker <theaga@theaga.org>

Porto ScienceLiteracy Feb11-12

Join us < http://www.euroscitizen.eu/how-to-join/ >at our kick-off meeting if you are an evolutionary biologist, social scientist, science communicator or educator, artist, filmmaker, journalist or policymaker interested in promoting scientific literacy in evolution across Europe.

During two days EuroScitizen COST Action Working Groups (WGs) will meet in the beautiful city of Porto, Portugal, to collaboratively work to:

WG1: Assessment

Measure understanding and acceptance of Evolution across Europe

Read more... < http://www.euroscitizen.eu/wg1-assessment-meeting-description-and-evaluation-scores/ >

WG2: Formal Education

Identify the needs of educational systems and opportunities to improve the teaching of evolution

Read more... < http://www.euroscitizen.eu/wg2-formal-education-meeting-description-and-evaluation-scores/ >

WG3: Informal education

Identify and evaluate current practices of evolution education outside schools

Read more... < http://www.euroscitizen.eu/wg3-informal-education-meeting-description-and-evaluation-scores/ >

WG4: Media

Identify and improve communication channels between researchers and science journalists to increase scientific literacy in the society

Read more... < http://www.euroscitizen.eu/wg4-meeting-description-and-evaluation-scores/ >

WG5: Scientists

Foster efficient researchers engagement in science outreach and its public impact

Read more... < http://www.euroscitizen.eu/wg5-meeting-description-and-evaluation-scores/ > Apply to join the meeting here < https://goo.gl/forms/-SsCTOOeiTxTisje33 >!

Reimbursement for travel and accommodation will be given to selected COST Action participants.

Applications close on the 30th of November. Results will be communicated by the 15th December.

If you are a member of multiple working groups, you will have to select one meeting to attend. Dont worry, there will be time in the programme to exchange with other WGs. Find out more about the meeting program here < http://www.euroscitizen.eu/wp-content/-uploads/2018/10/Porto-Timetable-gnl-1.pdf > !

If you are not yet a member of the Action, then read here < http://www.euroscitizen.eu/about/ >about the new COST Action and find out more on how to join the Action here < http://www.euroscitizen.eu/how-to-join/ >!

Xana S Pinto <xanasapinto@gmail.com>

Trondheim iBOL2019 Jun17-20

Dear friends and colleagues,

It is a pleasure to announce that abstract submission for the upcoming Barcode of Life Conference now is open. For guidelines and access to the submission portal, please visit the conference website: http://-dnabarcodes2019.org/abstracts/. Abstract submission deadline is January 15, 2019.

Please consider registering for the conference as soon as possible (space is limited). More information on how to register here: http://dnabarcodes2019.org/registration/ We are eager to spread news about the conference to as many potential participants as possible. I would appreciate it if you forward this message in your network, and maybe point to the list of interesting session themes (http://dnabarcodes2019.org/program/) and outstanding plenary speakers (http://dnabarcodes2019.org/-program/plenary-speakers/).

Thank you and best wishes,

Mike Martin, PhD Associate professor

NTNU University Museum, Department of Natural History http://www.ntnu.edu/employees/mike.martin Mike Martin <sameoldmike@gmail.com>

Tuscany QuantGenomics Feb9-15

GRC and GRS on QUANTITATIVE GENETICS AND GENOMICS

Gordon Research Conference (GRC) on Quantitative Genetics and Genomics February 10-15, 2019 V registration deadline 13 January 2019

Gordon Research Symposium (GRS) on Quantitative Genetics and Genomics February 9-10, 2019 V registration deadline 12 January 2019

Come to Il Ciocco Tuscany - Italy and hear the latest unpublished research on quantitative genetics and genomics. The program covers a wide range of topics and wonderful invited speakers (see the program be-

low). The theme of the 2019 GRC is Use of Big Data in Quantitative Genetics, and that for the 2019 GRS (2 day seminar for students and postdocs before the main GRC) is Offered by Big Data in Quantitative Genetics and Genomics: Methods, Insights and Future Directions, timely topics for all research in biological sciences in this data-driven age. The focus of the conference is as much on the collection and appropriate use of data, as it is on the mathematical models one can employ on the data to extract biologically relevant information.

The GRC on Quantitative Genetics and Genomics is unusual in that it brings together scientists working on humans, crops, livestock and other species. Gordon conferences are also unusual in that unpublished research is presented and there is ample time for discussion both in the sessions and outside of them.

In the two days leading to the GRC, the Gordon Research Seminar (GRS) gives graduate students and postdocs an opportunity to share their research, interact with each other, and engage in discussions on career and life in quantitative genetics in a mentoring session with senior scientists. Speaker abstracts are due 9 November V all attendees of the GRS will be able to present their work in oral or poster presentations, please send in abstracts with your applications!

Join us by applying to the GRC: https://www.grc.org/-quantitative-genetics-and-genomics-conference/2019/ and to the GRS: https://www.grc.org/quantitative-genetics-and-genomics-grs-conference/2019/ Program for the GRC (Topics, discussion leaders V DL, and speakers)

1) Genetic architecture of complex traits: Gibran Hermani (DL), Matt Robinson, Danielle Posthuma, Bogdan Pasaniuc

2) GxE interactions: Jack Dekkers (DL), Jesse Lasky, Andrea Wilson

3) Selection and evolution of complex traits: Josephine Pemberton (DL), Jian Zeng, Kelly Swarts, Aida Andres

4) Statistical methods: Theo Meuwissen (DL), Po-Ru Loh, Matthew Stephens, Andres Legara

5) Big Data and machine learning: Ed Buckler (DL), Andrew Kern, Sara Hagg

6) Use of functional data: Michel Georges (DL), Annique Claringbold, Huaijin Zhou, Irini Voineagu

7) Gene expression and phenomics: Ben Hayes (DL), Jesse Poland, David Galbraith, Tuuli Lappalainen

8) Selected from posters: Ann Stapleton (DL)

9) Applications: Naomi Wray (DL), David Habier, Rachel Hawkins

If you have questions on application or registration, please contact:

Michael Goddard Chair, 2019 GRC on Quantitative Genetics and Genomics Email: mike.goddard@ecodev.vic.gov.au

Guilherme Rosa Vice-Chair, 2019 GRC on Quantitative Genetics and Genomics Email: mike.goddard@ecodev.vic.gov.au

Na Cai and Daniel Money Co-Chairs, 2019 GRS on Quantitative Genetics and Genomics Emails: nc10@sanger.ac.uk, dpm46@cam.ac.uk

GUILHERME J M ROSA <grosa@wisc.edu>

UCambridge EvolutionaryGenetics Mar19

Dear Colleagues,

The annual Evolutionary Genetics and Genomics Symposium (EGGS) will take place on Tuesday 19th March 2019 at the University of Cambridge. The aim of this meeting is to bring together participants from a range of backgrounds, with a particular focus on genomics and evolutionary biology.

EGGS 2018 will feature a keynotes from:

* Professor Anne C. Stone, Regents' Professor School of Human Evolution & Social Change, Arizona State University

* Talk title: The evolutionary history of M. tuberculosis: insights from ancient DNA

* Professor Charles Swanton FRCP PhD FMedSci, FRS, Director, CRUK Lung Cancer Centre of Excellence, Senior Group Leader, The Francis Crick Institute

* Talk title: Cancer Evolution and Immune Escape: TRACERx.

* Professor Beverley Glover, Director of Cambridge University Botanic Garden, Department of Plant Sciences, University of Cambridge

* Talk title: Flower evo-devo and the link to speciation

Registration is now open and the deadline is 12/03/2019. Please register at

https://evolutionarygeneticsandgenomics.com/-registrationevolutionary-genetics-and-genomics-symposium/ Abstract submission for talks is now open

and the deadline is 20/01/2019. If you are interested in presenting a talk, please submit your abstract via this link:

https://tinyurl.com/yao5nwaj With best wishes,

The organising committee.

Arunkumar Ramesh <ar885@cam.ac.uk>

UCambridge EvolutionEvolving Apr1-4

The final day to submit abstracts for the Evolution Evolving conference is THIS SATURDAY (1st December). Don't miss out!

Evolution Evolving: Process, Mechanism and Theory Churchill College, University of Cambridge, UK 1-4 April 2019 — Evolutionary biology is a vibrant field with a theoretical framework that itself evolves. The Evolution Evolving conference will focus on some emerging themes in the relationship between development and evolution. Topics include the evolutionary causes and consequences of —developmental bias, plasticity, niche construction and extra-genetic inheritance —' all of which contribute to an understanding of evolvability. The conference will feature a balanced program of talks and poster sessions spanning three days, and be a mix of empirical and theoretical work, as well as contributions to the history and philosophy of evolutionary biology. — Invited speakers include Alex Badyaev, Renee Duckworth, Laurel Fogarty, Jukka Jernvall, Alan C Love, Joanna Masel, Armin Moczek, Angela Potochnik, Sean Rice and Jessica Riskin.

Abstract submission closes 1 December 2018 Early bird registration closes 4 January 2019 — Conference website: https://evolutionevolving.org/ Conference twitter: @EvoEvolving Conference email: evoevolving@st-andrews.ac.uk Organising committee: Prof Paul Brakefield, Prof Kevin Laland, Prof Tobias Uller, Dr Andrew Buskell & Dr Katrina Falkenberg

Katrina Falkenberg <kjf5@st-andrews.ac.uk>

Zurich EvolutionAndMedicine Aug13-16

The Fifth Annual Meeting of the International Society for Evolution, Medicine, and Public Health will be in Zurich, Switzerland August 13-16. Students, researchers, clinicians and others are all welcome. Full information at https://isemph.org/2019-Meeting ISEMPH 2019 will gather delegates from around the world. It follows in the footsteps of successful previous meetings in Tempe, Arizona; Durham, North Carolina; Groningen, The Netherlands and Park City, Utah. ISEMPH 2019 is profoundly interdisciplinary and emphasizes the multiple interfaces between evolutionary biology and human health in the complementary fields of medicine, evolutionary biology, anthropology, evolutionary psychology, behavioral ecology and epidemiology. The meetings particularly welcome students and clinicians at all stages of professional development.

Confirmed keynote speakers

Prof. Bernard J. Crespi, Simon Fraser University, Canada: How evolutionary biology can frame a unified theory for understanding human mental illness. Prof. Dario Valenzano, Max Planck Institute for Biology of Ageing, Germany: African killifishes shed light on the genomic basis of life history trait evolution in vertebrates. Prof. Kayla King, University of Oxford, UK: Protectors vs. killers: microbes within the host as drivers of pathogen evolution. Prof. Verena Schunemann, University of Zurich, Switzerland: Ancient DNA and pathogens: uncovering the past of human diseases Also prize winners TBA will give plenary talks G.C Williams Prize winner:TBA Gilbert Omenn Prize winner: Nominations open January 1, 2019

Social activities

Tuesday August 13, afternoon: Individual visit of several museums in the near of the University main building, for example zoological museum Tuesday August 13, evening: Welcome reception with bratwurst and beer (and vegetarian alternatives) on the University main building terrace Wednesday August 14, evening: Make your own Swiss chocolate! Chocolate factory on the University main building terrace Thursday August 15, evening: Reception Friday August 16, evening: Guided night city tour Saturday August 17, all day: Individual excursions in the surroundings of Zurich

Full information at https://isemph.org/2019-Meeting Randolph Nesse <nesse@asu.edu>

GradStudentPositions

AboAkademiU Finland MatingSystemEvolution

Doctoral Student position at Doctoral Network in Functional Marine Biodiversity (FunMarBio)

We offer a doctoral position for the period 1.1.2019-30.6.2021 (max. 30 months), within the Doctoral Network in Functional Marine Biodiversity (FunMarBio)

The main objective with this position is to offer research education in marine biology and ecology. Understanding what generates spatial and temporal variation in natural and sexual selection is one of the major challenges in current evolutionary ecology. This doctoral project focuses on how the availability of food and feeding habitats for females affect spatial variation in mating success and sexual selection in males in a resource defence breeding system. The model system is the sand goby, Pomatoschistus minutus, a small marine fish species and a well-established model system in evolutionary behavioural ecology. How female fecundity variation is reflected on mating systems and sexual selection has received little attention despite that there is a direct link between female reproductive rate and sexual selection through the effects on the operational sex ratio.

The project combines trophic ecology with behavioural ecology. It seeks to explain eco-evolutionary feedback processes that arise between individual behaviour and the community and seascape through their influence on female fecundity and hence population sustainability. Information gained through this project will be relevant in predicting the effects of climate change and device management strategies to mitigate the effects of this. The project is part of the recently initiated strategic multiÂdisciplinary Profiling area The Sea (https://-www.abo.fi/en/the-sea/) at Sbo Akademi University. The position is part of the Doctoral Network in Functional Marine Biodiversity and the successful candidate will be working a diverse and international environment that provides a stimulating intellectual environment for research, networking and career development.

We are seeking a highly motivated, self-driven student who is able to work independently but also in a team.

Experience from fieldwork in aquatic environments will be considered as a benefit. The current funding is for 30 months, starting no later than March 2019.

For further information about the position and application process, please contact Professor Kai LindstrÃÂ, kai.lindstrom@abo.fi and Tel. +358 2 215 4355.

See the full announcement at https://-abo.rekrytointi.com/paikat/?o=A_A&jid6 Deadline for submission of application is on 15th December 2018 at 3 p.m. (Finnish time). Complete documentation is required.

Kai LindstrÃÂProfessor Sbo Akademi University Environmental and marine biology TykistÃÂ6 20520 Turku Finland

Kai LindstrÃÂ<Kai.Lindstrom@abo.fi>

Antwerp AdaptationGenomics

PhD position in cichlid fish Evolutionary Genomics in the Svardal lab at the University of Antwerp

The Svardal lab at the University of Antwerp (Belgium) has a PhD position available in evolutionary genomics of Lake Malawi cichlid fishes and is looking for talented and highly motivated candidates to start early 2019 (starting date negotiable).

The 100s of closely related but ecologically diverse species of Lake Malawi cichlids provide an exceptional model to study the genomic mechanisms involved rapid adaptation and diversification. We are working both on understanding the fundamental processes involved in the evolution of new species and on understanding the molecular basis of adaptive phenotypes. Our main scientific approach is the analysis of large-scale genome sequencing data using population genetic and statistical genomic techniques. Recently, we also have established experimental populations of Lake Malawi cichlid fishes at the University of Antwerp, with the aim to study physiological and behavioural phenotypes involved in rapid adaptation to heavy fishing.

PhD topics:

- Understanding the role of old genomic variation in rapid adaptation. We have recently found that Lake Malawi cichlids harbour genomic regions of exceptionally high genetic diversity (Svardal et al., in preparation). In this project you will analyse recently produced whole-genome sequencing data of 100s of Lake Malawi cichlid fish species to infer the evolutionary origin of genomic regions of high genetic diversity. For example, you will test whether these genetic variants were brought into the ancestor of Lake Malawi cichlids by hybridisation with a divergent lineage of cichlid fish and whether this variation has been maintained by balancing selection. In a second step, you will use population genetic methods to test for the role of these genetic variants in ecological adaptation and speciation of cichlid fish species.

- Uncovering the genomic basis of recent adaptation to heavy fishing through the sequencing of museum specimens. Besides their role as a model system in speciation research, Lake Malawi cichlids are food for millions of people, and subject to a recent and strong increase in fishing. Some cichlid populations have seemingly adapted their life histories to high fishing pressure and mature at substantially smaller size compared to less heavily fished populations. In this project you will analyse genome sequencing data of the same species from up to 130-years- old museum collections and from present-day to compare the genetic composition of populations at several time points before and during heavy fishing. This will allow us to identify genetic variants, genes, and molecular pathways selected by fishing pressure. Together with differential gene expression analysis and trait mapping in laboratory populations (optionally as a separate project) this will yield unprecedented insight into the molecular and phenotypic responses to heavy fishing.

Desired qualifications: - Master's degree in Biology, Mathematics, Computer science, or a related field - Understanding of the basic principles of population genetics and/or strong motivation to develop quantitative skills in this field - Some experience with computational data analysis, statistics, and programming (e.g., R, Python, command line) and/or strong motivation to acquire the necessary skills in these fields

We offer: - an attractive doctoral scholarship for 4 years (contingent on positive evaluation after 1 year) - great genomic and computational resources and fish facilities - funds for conference travel and the option to engage in field work in Africa - a stimulating, international working environment

Interested? Please contact hannes.svardal@uantwerpen.be including a CV, a short statement of motivation/research interest (max. 1 page) and the names of two referees, preferably by 20th December 2018, but later inquiries are also welcome.

PhD ad: https://drive.google.com/open?id=-1OFuxIEJ4u6fBlVAstvRDamzP1-vP-8oq Lab website: https://www.uantwerpen.be/en/staff/hannes-svardal/-svardal-lab/ –

Prof. Dr. Hannes Svardal

Research Professor in Evolutionary, Ecological and Environmental Omics

Department of Biology

University of Antwerp

Campus Groenenborger, room U758

hannes.svardal@uantwerpen.be

Svardal Hannes <Hannes.Svardal@uantwerpen.be>

ArizonaStateU
WeevilSymbiontEvolution

E-mail inquiries (nico.franz@asu.edu) are strongly encouraged.

Applications are accepted until December 15, 2018; with a preference date of December 01, 2018.

Apply to the Evolutionary Biology Ph.D. Program: https://sols.asu.edu/degrees/grad/evolutionary-biology-phd Apply to the M.Sc. in Biology Program: https://sols.asu.edu/degrees/grad/biology-ms The Franz Lab of Insect Systematics, Evolution, and Biodiversity Informatics at Arizona State University is seeking a highly motivated M.Sc. or Ph.D. (preferred) candidate for the U.S. National Science Foundation-funded project: "Weevils of Sonora: Discovering species distributions and historical patterns of symbiont associations". We are looking in particular for candidates interested in addressing molecular phylogenetic and -genomic research tasks and questions related to the evolution of weevil gut symbionts. At least two years of Research Assistantship funding are available; with additional years to be supported through a variety of sources.

Public abstract (see https://nsf.gov/awardsearch/-showAward?AWD_ID54731): "This project addresses a gap in our understanding of insect biodiversity within and adjacent to the southwestern United States. The Mexican State of Sonora shares a 375 miles-long border

with Arizona, and has a large biodiversity of insect fauna that remains very poorly known. In the case of beetles in the weevil superfamily, less than 100 species have been documented, yet nearly 1,000 species - many of them new to science - are expected to occur in Sonora. Weevils are economically important; thousands of species have either detrimental (crop pest) or beneficial (bio-control) ecosystem impacts. This project will create a new collaboration between researchers and students at Arizona State University and two Mexican universities, with the goal of thoroughly sampling the weevil diversity of Sonora and publishing the results in a dynamic and openly accessible on-line checklist. Longstanding questions about the evolution of weevil diversity, and its relationship to their gut-inhabiting bacteria and host plant diets, will also be addressed. The project will mentor two doctoral students and undergraduate students in the concepts and methods of modern systematics and biodiversity data science. A multi-faceted education and outreach program will include the creation of a flashcard-based K-3 textbook on regional insect diversity and functional natural history.

The project includes an extensive field work and collection curation component, expected to yield at least 5,000 unique species/locality instances of research-ready specimens in the weevils (Coleoptera: Curculionoidea). Field-to-data dissemination workflows will benefit from further improving the Symbiota software platform, with new options to publish data packages to external journals. The checklist will include updated taxonomic names, all specimens, species distribution maps, host plant records, images, species profile pages, and an interactive identification key to the Sonoran weevil genera as currently recognized. A well-structured metagenomics sequencing study of the gut content of more than 100 species in eight targeted weevil lineages will identify both their plant hosts and bacterial symbiont profiles. This dataset will facilitate the discovery of numerous symbiont clades, and test novel hypotheses regarding the relative impact of weevil phylogeny, biogeography, host associations, and other environmental gradients on the weevils' observed symbiont profiles".

Research in our lab is well balanced between collections-based and genetic/genomic approaches; with particular strengths in biodiversity informatics and data science. The lab is closely integrated with the Hasbrouck Insect Collection and Biodiversity Knowledge Integration Center. We are committed to open science and an inclusive, equitable, and team-oriented work environment that promotes the candidate's career and personal advancement.

Nico M. Franz, Ph.D. Professor, School of Life Sciences Curator, Hasbrouck Insect Collection Founding Director, BioKIC

School of Life Sciences, PO Box 874108 Arizona State University, Tempe, AZ 85287-4108 Office: (480) 727-6324; Lab: (480) 965-2850 Collection: (480) 965-2036; Fax: (480) 965-6899 E-mail: nico.franz@asu.edu Web: https://biokic.asu.edu/ Nico Franz <nico.franz@asu.edu>

ArkansasStateU
EvolutionAvianBodySize

M.S. position in Biology - Evolution of avian body size with climate change

Description: The Rolland Lab is inviting applications for an MS student position to start in the fall semester of 2019 in the Biological Sciences program at Arkansas State University-Jonesboro campus. The student will be expected to develop their own thesis project with the overall goal of identifying patterns and factors of influence (e.g., food availability, life history traits) for Bergmann's rule under climate change among avian species of North America. Long-term data will be central to this project but the use of natural history collections and/or the contribution to collections will also be encouraged. The successful applicant will interact with the US Geological Survey Bird Banding Lab and the Institute for Bird Populations to obtain data, and may need to collaborate with museums. This position includes a teaching assistantship but funding is otherwise provided by the National Science Foundation through their Collections in Support of Biological Research and Scholarships in Science, Technology, Engineering, and Mathematics programs. Therefore, suitable candidates must be US citizens, permanent residents, nationals, or refugees. Scholarship recipients must also demonstrate financial need through a FASFA form. Applicants who are first-generation college students or underrepresented minority students are highly encouraged to apply.

Qualifications: Applicants must have a BS in ecology, conservation, evolution, or related field with 3.0 GPA. Applicants should also have a strong interest in natural history collections and biodiversity. Finally, applicants with experience in handling and measuring wild birds or with museum specimens will be given preference.

Application documents: Please send the following documents to Dr. Rolland by January 15, 2019: 1) A cover letter describing your interests, career goals, relevant re-

search experiences and skills. 2) Your curriculum Vitae (not a resume) with the contact information of at least three references 3) A copy of your academic transcripts 4) A copy of GRE scores

Contact: Dr. Virginie Rolland vrolland@astate.edu 870-972-3194

For more information: - MS Biological Sciences program: http://www.astate.edu/info/academics/-degrees/degree-details.dot?mid>e79ec1-24ed-48f8-9c73-7bea39c83b77 - Scholarship program: http://-www.astate.edu/a/biodiversityscholar/ - Rolland lab: www.virginierolland.wixsite.com/rollandlab Virginie Rolland <vrolland@astate.edu>

AuburnU EvoDevo

The Range lab at Auburn University is recruiting graduate students interested in evolutionary and developmental biology. Research in the lab focuses on understanding how a network of three different Wnt signaling branches (Wnt/Beta-catenin, Wnt/JNK, and Wnt/Ca2+) coordinate the regulatory networks that establish territories along the early anterior-posterior axis, using sea urchin and hemichordate (acorn worm) embryos as the primary model systems. Remarkably, functional and expression studies in many metazoans (vertebrates, urochordates, hemichordates, echinoderms and cnidarians) suggest that many aspects of this Wnt signaling network governing AP axis specification is an ancient mechanism that existed in the common ancestor of bilaterians and cnidarians.

We also work closely with the Counterman lab at nearby Mississippi State University to study how Wnt signaling is involved in butterfly wing pattern development. In collaboration, we have begun to characterize the Wnt network of signaling governing pigmentary and structurally-based color patterns.

The position is for a talented PhD student to work on a NIH funded project beginning in the Fall of 2019. The student will have the choice to work on any number of projects in the lab that focus on the roles of Wnt signaling during early AP axis specification and patterning in sea urchin and hemichordate embryos. The student will also have opportunities to contribute to our collaboration with the Counterman lab. The position offers training in a combination of molecular manipulations, high-throughput genome-wide assays and bioinformatics, gene regulatory network analysis as well as classical embryology.

Auburn University is situated in the quintessential college town of Auburn, Alabama and is located close to several major cities (e.g. Atlanta [1.25 hrs] and Birmingham [2 hrs]), the beaches along the Gulf of Mexico and Atlantic Ocean, as well as the Appalachian Mountains. You can learn more about the Department of Biological Sciences at Auburn University at http://-www.auburn.edu/cosam/departments/biology/ . Interested applicants should contact Dr. Ryan Range at range@auburn.edu. With your inquiry, please include a CV, unofficial transcript, and GRE scores if available.

Applications for Fall 2019 are accepted until February 1st, 2019. In-person interviews at Auburn are available. There will be a graduate student recruitment week hosted by the Department of Biological Sciences from January 22nd ' 24th for interested students if they contact Dr. Range before December 31st, 2018.

Recent publications related to the position:

Integration of canonical and non-canonical Wnt signaling pathways patterns the neuroectoderm along the anterior-posterior axis of sea urchin embryos. Range RC, Angerer RC, Angerer LM. PLoS Biol. 2013;11(1):e1001467. doi: 10.1371/journal.pbio.1001467. PMID: 23335859

Specification and positioning of the anterior neuroectoderm in deuterostome embryos. Range R. Genesis. 2014 Mar;52(3):222-34. doi: 10.1002/dvg.22759. Review. PMID: 24549984

An anterior signaling center patterns and sizes the anterior neuroectoderm of the sea urchin embryo. Range RC, Wei Z. Development. 2016 May 1;143(9):1523-33. doi: 10.1242/dev.128165. PMID: 26952978

Khadka, A, Martinez-Bartolomé, M, Snyder, S, and Range, RC . A novel gene's role in an ancient mechanism: secreted Frizzled-related protein 1 is a critical component in the Wnt signaling network governing anterior-posterior neuroectoderm patterning in sea urchin embryos. EvoDevo. 2017. DOI:10.1186/s13227-017-0089-3.

Range RC. Canonical and non-canonical Wnt signaling pathways define the expression domains of Frizzled 5/8 and Frizzled1/2/7 along the early anterior-posterior axis in sea urchin embryos. Developmental Biology. 2018. pii: S0012-1606(18)30238-0. DOI: 10.1016/j.ydbio.2018.10.003.

Ryan Range <range@auburn.edu>

daw0036@auburn.edu

Matthew Wolak <mew0099@auburn.edu>

AuburnU EvolutionaryEcol

PhD position in Evolutionary Ecology of Sex Differences

Beginning Fall 2019

Drs. Warner (http://www.auburn.edu/cosam/-faculty/biology/warner/index.htm) and Wolak (http://www.auburn.edu/cosam/faculty/biology/-wolak/index.htm) at Auburn University are looking for a PhD student to co-advise that is motivated to develop projects addressing key outstanding questions in evolutionary ecology. The student will develop and test theory for the evolution of sex determination and physiological or phenotypic differences between sexes using a combination of experimental and observational studies of turtles and/or lizards.

We encourage all interested students to contact us, by sending a CV and ***brief*** description of research interests to ***both*** Dr. Warner (daw0036 <at> auburn.edu) and Dr. Wolak (terps <at> auburn.edu). PhD students are expected to develop their own research questions within the broader context outlined above. Students will also be expected to aggressively pursue fellowship and research funding opportunities and publish their research in high quality journals.

Deadline for admission to the program with guaranteed support (10 semesters of Graduate Teaching Assistantships, GTAs) is **February 1st**. More information is available on the webpages of the Dept. of Biological Sciences (http://www.auburn.edu/-cosam/departments/biology/index.htm) and DBS Graduate Studies Program (http://www.auburn.edu/cosam/-departments/biology/grad/index.htm)

Auburn graduate students enjoy a thriving community, recognized as one of the "best small towns in America," with moderate climate and easy access to major cities, major international airports, or to beach and mountain recreational facilities. Situated along the rapidly developing I-85 corridor between Atlanta, GA and Montgomery, AL, the combined Auburn-Opelika-Columbus statistical area has a population of over 500,000.

Matthew Wolak Assistant Professor Dept. of Biological Sciences Auburn University Auburn, AL email: terps@auburn.edu

Daniel Warner Assistant Professor Dept. of Biological Sciences Auburn University Auburn, AL email:

BielefeldU BehavEvolEcol

PhD Student Position- Behavioral Ecology and Evolution

Department of Animal Behaviour, Bielefeld University, Bielefeld, Germany

PROJECT DESCRIPTION: How much are individual odors determined by genetics? The goal of this project is to investigate if genetics, particularly loci at the Major Histocompatibility Complex (MHC), govern identity cues that are used for social communication in banded mongoose populations. Banded mongooses have been studied in detail as part of the Banded Mongoose Research Project at a long-term field site at the Mweya Peninsula, Queen Elizabeth National Park, Uganda. Behavioral, fitness, and genetic data have been collected from wild habituated mongooses continuously for over 20 years, and the study is ongoing (see the project website at http://socialisresearch.org). This project is part of an international collaboration and will combine behavioural data, field experiments, chemical odor profiles, microbial profiles, and high-throughput sequencing genetic methods to comprehensively investigate the mechanisms of genetic-based social signaling in a natural population.

TASKS: The PhD student will investigate the genetic basis of odor-based social communication in wild banded mongooses. Methods will include genotyping of MHC-loci, conducting field experiments on wild banded mongooses at Queen-Elizabeth National park in western Uganda, statistical analyses, and writing scientific publications for international, peer-reviewed journals.

REQUIREMENTS: (1) a university bachelor or Master degree in Biology, Ecology, or a related discipline, (2) experience with field and lab work, (3) experience with statistical software, preferably R, (4) interest in behavioural, genetic, and evolutionary questions, (5) ability to work both independently and as part of a team, (6) excellent oral and written communication skills in English.

PREFERRED EXPERIENCE: (1) papers in peer-reviewed international journals, (2) experience with high-throughput sequencing techniques, (3) experience working with multiple, large-scale data sets.

POSITION: The position runs from early 2019 for three

years and is funded by the German Research Foundation (DFG). The successful candidate will be based at the Department of Animal Behaviour at Bielefeld University (www.uni-bielefeld.de/biologie/animalbehaviour/-home.html) and will be supervised by Dr. Jamie Winternitz and co-supervised by Dr. Hazel Nichols at Swansea University. Salary will be paid according to Remuneration level 13 (65%) of the Wage Agreement for Public Service in the Federal States (TV-L).

APPLICATION INSTRUCTIONS: To apply, please provide: (1) a letter of motivation including a statement of your research interests and skills and experience relevant to the position; (2) a CV including publication list; (3) names and contact details of two referees willing to write confidential letters of recommendation. All materials should be emailed as a single PDF file to: jamie.winternitz@uni-bielefeld.de. The application deadline is December 15th 2018 and interviews will take place shortly thereafter. After the decision, the position should start as soon as possible. For further information on the project and the department, please contact Jamie Winternitz (jamie.winternitz@uni-bielefeld.de) with any informal inquiries.

ADDITIONAL INFORMATION: The Department of Animal Behaviour at Bielefeld University is the oldest of its kind in Germany and currently hosts seven principal investigators, eight postdocs and 20 PhD students. It offers a stimulating international environment and an excellent research infrastructure including new molecular laboratories. The working language of the Department is English. Together with the Evolution and Animal Ecology research groups housed in the same building, there are some 50 scientists and PhD students from over ten different countries working on related topics in behaviour, ecology and evolution.

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

Bielefeld University has received a number of awards for its achievements in the provision of equal opportunity and has been recognized as a family friendly university. The University welcomes applications from women. This is particularly true with regard both to academic and technical posts as well as positions in Information Technology and Trades and Craft. Applications are handled according to the provisions of the state equal opportunity statutes. Applications from suitably qualified handicapped and severely handicapped persons are explicitly encouraged.

– Dr. Jamie Winternitz Department of Animal Behaviour

Bielefeld University Morgenbreede 45, 33615 Bielefeld, Germany

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BoiseStateU SensoryEcology

Ph.D. position in Sensory Ecology of Light Pollution at Boise State University.

A graduate assistantship is available to support a Ph.D. student pursuing research on the effects of light pollution on bat and insect communities. Work will take place at a long-term research site of the Barber Lab in Grand Teton National Park, among other National Park Units. In addition, experimental research could be sited in the Pioneer Mountains of Central Idaho, another long-term study area. Part of this project will involve testing the efficacy of recently developed ecologically-friendly night sky lighting using passive acoustic monitoring, radiotelemetry, and insect identification. This position is funded by a GA with a 12-month stipend ($25,000), tuition and fee waiver, and health insurance (renewable yearly for 4-5 years). Please contact jesse-barber@boisestate.edu with a CV and a cover letter explaining your interests before applying to the EEB PhD program at Boise State (please use the subject line: Light at Night PhD). A relevant M.S. or equivalent research experience is preferred. The deadline to submit an application is December 15, 2018.

About the program: The Ecology, Evolution, and Behavior Ph.D. program at Boise State brings together faculty from multiple academic departments including biological sciences, geosciences, anthropology, and the human-environment systems group to offer relevant courses and provide unique mentorship and training opportunities. Further, we have a network of valuable connections in academia, federal and state agencies, nonprofits and NGOs, as well as partnerships with international organizations all dedicated to providing students with transformative research and educational experiences for diverse career opportunities. To learn more, please visit: http://eeb.boisestate.edu/. Boise State University embraces and welcomes diversity in its faculty, student body, and staff. Accordingly, applicants who would

add to the diversity and excellence of our academic community are encouraged to apply.

About the city: Boise State students enjoy living in the beautiful city of Boise, which strikes a perfect balance with close-by outdoor recreational activities as well as a vibrant downtown life. Nestled in the foothills of the Rocky Mountains and the capital of the State of Idaho, Boise is frequently featured as a top-ranked metropolis. The city has ample opportunities for world-class outdoor activities year round and a thriving arts and entertainment culture.

BoiseStateU SensoryEvolution

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braces and welcomes diversity in its faculty, student body, and staff. Accordingly, applicants who would add to the diversity and excellence of our academic community are encouraged to apply. The deadline to submit an application is Jan 20.

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Cory Toth <tothcorya@gmail.com>

Bordeaux BioinformaticsEvolutionConifers

Genome evolution in conifers (Master internship)

Supervisors: Marina de Miguel Vega, François Ehrenmann, Christophe Plomion UMR 1202 Biogeco, INRA-Univ. Bordeaux, Equipe Ecologie et génomique fonctionnelle Co-supervisor : Jérôme Salse (Inra, Clermont-Ferrand)

Contact person: Marina de Miguel Vega, marina.demiguel@inra.fr Send a CV and a motivation letter

Desired candidate profile: master in bioinformatics or solid competences in data analysis; knowledge in biology and genomics.

Duration: 5-6 months from Jan-Feb to June-July 2019

Salary: 568.5€/month

Location: the internship will take place at the UMR BioGeCo at the INRA site of Cestas-Pierroton (INRA / University of Bordeaux). The site offers a pleasant setting within a forest estate located between Bordeaux (20km) and Arcachon (40km) (see: https://www6.bordeaux-aquitaine.inra.fr/biogeco/Acces). The research campus is accessible by public transport from the train station of Cestas-Gazinet (2 bus shuttles per day).

Background Conifers, the most abundant group of gymnosperms, are a unique system for the study of adaptive evolution because they represent the largest and longest living terrestrial organisms, dominate many of the temperate and boreal forests and are adapted to

a large variety of environmental conditions (Diaz-Sala et al. 2013). Evolutionary models of angiosperm karyotypes have been proposed recently thanks to comparison of available sequenced genomes for several important species (Salse et al. 2008, 2015; Murat et al. 2010) . These studies showed that angiosperm genomes have evolved through frequent, rapid chromosomal rearrangements, including whole-genome duplications (WGDs) followed by nested chromosome fusions. On the other hand, conifers have particular genome features that slow down knowledge on genome evolution. For instance, conifers have extremely large genomes (ranging from 18 to 35 Gb) characterized by the presence of repetitive elements (Kovach et al. 2010; Mackay et al. 2012). These features complicate attempts to sequence the genomes of this group of plants and the recently released draft genome sequences are highly fragmented (Nystedt et al. 2013; Zimin et al. 2014; Warren et al. 2015; Stevens et al. 2016; Neale et al. 2017). One ancient WGD event is known to have occurred before the angiosperm'gymnosperm split around 350 Ma (Jiao et al. 2011). However, whether other WGD events have occurred during the evolutionary history of conifers is still a matter of debate between the scientific community. Nysted et al. (2013) did not find evidences of recent WGD in Picea abies and advocated an intense activity of transposable elements as the main mechanism of genome size increment in conifers (Stevens et al. 2016). On the contrary, Li et al. (2015) reported a WGD for the Pinaceae and another for the Cupressophyte clade. In addition, most of the genomic studies in conifers have been performed within the Pinaceae, the largest family of conifers, and it has been well demonstrated that Pinaceae genomes present high levels of interspecific and intergeneric synteny and macrocollinearity (Krutovsky et al. 2004; Pelgas et al. 2006; Pavy et al. 2012), suggesting a lack of chromosomal rearrangement within this family. Nevertheless, a comparison between Pinaceae and Cupressaceae revealed intense chromosomal shuffling between both families (de Miguel et al. 2015). Further studies on genome structure, function and evolution including different conifer families are needed in order to decipher whether evolutionary mechanisms identified in angiosperm genome evolution have also played a key role in the evolution of conifers.

Project The Master2 project will take advantage of the previous work developed by this team in the construction of a high-density consensus genetic maps for Pinaceae (updated from de Miguel et al. 2015) and other published conifer linkage maps (Moriguchi et al. 2016). High density genetic maps are a valuable tool in the absence of completely assembled genome sequences for conifers. Combining gene position information (ob-tained from high density genetic maps) with publicly available transcriptomic and genomic sequences for several conifer species (Li et al. 2015) a comparison of genome structure and function will be performed. The main objective of this Master project is to study the genome structure and evolution in conifers. Three main tasks will be pursued: 1. Genome structure comparison between conifer species on the basis of high density genetic linkage maps. 2. Validate or refute the existence of recent WGD during the evolution of conifers. 3. Analyze gene-turnover (gain and loss of genes in particular gene families) during conifer evolution. The completion of this project will contribute to understand unique features of conifer genomes that may shed new light to understand the

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BrighamYoungU InsectEvolutionaryGenomics

The Bybee lab at Brigham Young University is looking for a graduate student interested in insect genomics. Our lab focuses on several different groups of insects with the main focus being on dragonflies and damselflies (Odonata). The ideal student would have general skills in bioinformatics, a solid academic track record (e.g., grants, publications, etc.), a passion for evolutionary biology, and good interpersonal skills to work in a group. A project focused on Odonata gene family evolution is envisioned but a highly-motivated student with solid questions in evolutionary genomics may also develop their own project.

BYU is set in the Rocky Mountains of Utah, just south of Salt Lake City. The quality of life is high with endless opportunities for year-round outdoor activities. The Biology Department is composed of ecologists, evolutionary biologists, and bioinformaticians that specialize in genome assembly and algorithm development. BYU supports a core computing facility, https://marylou.byu.edu/ and a core sequencing facility http://dnasc.byu.edu/ and students have full access to both resources. There are appropriated funds for an interested student to generate genomes

for evolutionary research. BYU also has fellowships, among them the HIDRA fellowship for PhD students with a $30K/year fellowship. More information can be found here: http://researchdevelopment.byu.edu/-internal-sources/byuorca Prospective students can see more on the Bybee Lab webpage: https://-bybeelab.byu.edu/. Interested students can contact Dr. Seth Bybee directly: seth.bybee@byu.edu to discuss potential projects and the application process.

Seth Bybee, PhD Associate Professor Department of Biology Assistant Curator MLBM 4057 LSB Brigham Young University Provo, Utah 84602

seth.bybee@gmail.com

BrighamYoungU Utah AntarcticEvolutionaryEcol

I'm looking for grad students who are interested in addressing evolutionary ecology questions, focusing on soil ecosystems, starting Fall of 2019. The 5-year, fully funded positions include a $24k/yr stipend, full tuition scholarship, health insurance, supplemental travel funds ($800/yr) and a broad range of academic and recreational benefits*.

Dissertation projects will focus on core hypotheses associated with the McMurdo Dry Valley LTER research group (http://mcmlter.org), primarily the characterization of soil ecosystem responses to climate variation. Our hypotheses are informed by approaches including community and autecology, ecological genomics, comparative phylogeography, elemental stoichiometry, molecular evolution, and metagenomics/transcriptomics. Most (but not all) projects will require conducting field work in Antarctica.

*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. 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/).

For full consideration, complete applications should be received by January 15, 2019, but late applications can be considered through the first part of February.

If any of this looks interesting to you, drop me a line: Byron Adams bjadams@byu.edu https://scholar.google.com/citations?user=-oASVdOIAAAAJ&hl=en&oi=ao Byron Adams <byron_adams@byu.edu>

CardiffU BorneanBuffaloGenomics

PhD studentship (Cardiff University) —- —Landscape genomics of Bornean water buffalos — —

To apply visit: —https://www.findaphd.com/search/-ProjectDetails.aspx?PJID1782 Project Description: — Understanding the role of environmental adaptation is crucial to develop strategies to mitigate the effects of climate change. Identifying genomic regions involved in local environmental adaptation in species of agricultural interest is among the first steps towards generating a plan to conserve the adaptive potential in those species to guarantee the resilience of agricultural systems in the future. However, identifying those regions has only become possible in the last decades with the development of sophisticated genomic and statistical methods. —

This project will sample water buffalos in Sabah (Malaysian Borneo) and the UK, and genotype them with the Axiomâ"Â 90K Genotyping Array. This genomic data will be used to characterise the domestication and demographic history of the water buffalo. Additionally, it will be correlated to environmental variables from the samples' collection sites to identify genetic markers involved in local adaptation to Sabah's contrasting environments using state of the art landscape genomic methods. For the UK, correlative analyses between the genetic markers and production traits of interest will be carried out to identify genes of agricultural relevance. The combined results of these efforts will contribute to the generation of recommendations to inform husbandry practices while providing a collection of markers to monitor environmental adaptation. —

Supervisory team: —Dr. Pablo Orozco-terWengel (Cardiff University), Prof. Mark Beaumont (Bristol University), Dr. Benoit Goossens (Cardiff University, Director Cardiff University's Danau Girang Field Centre in Sabah). —This project is supported by Dr. Sen Nathan (Wildlife Department Sabah), and West Country Buffalo and Broughton Water Buffalo farms (UK).

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The PhD student will be based 75% at Cardiff University, spending 50% of the time at the main supervisor's lab that —specialises —in identifying signatures of selection using genomics in livestock, while 25% of the time will be spent in Sabah based at Cardiff University's Danau Girang Field Centre collecting buffalo samples in collaboration with the Sabah Wildlife Department (Collaborator). 20% of the time will be spent with the Bristol University's supervisor, a world leader in the development of statistical approaches to study demographic history using genetic data. 5% of the time will be spent with the UK collaborators learning about the water buffalo industry in the UK and contributing to knowledge dissemination in the industry. —

Training: —The PhD student will be trained in sampling and bioinformatics for SNP chip analysis (e.g. data quality filtering, demographic analyses, and identifying signatures of selection). This experimental design will enable the PhD student to characterise the domestication process of the swamp water buffalo and identify markers associated to local adaptation and production traits, while controlling for confounding factors such as the demographic history (to be simulated with approximate Bayesian computation). As part of the BBSRC SWBio Doctoral Training Program, the student will have access to several training modules across the four universities that comprise the DTP (Cardiff University, Bristol University, Bath Univeristy and Exeter University).

Application Deadline: —Monday 3rd of December, 2018

Starting Date: —October 2019

Duration: —4 years

Level of study: —Postgraduate Research

Academic criteria: —Applicants for a studentship must have obtained, or be about to obtain, a First or Upper Second Class UK Honours degree, or the equivalent qualifications gained outside the UK, in an appropriate area of science or technology. Applicants with a Lower Second Class degree will be considered if they also have a Master's degree or have significant relevant non-academic experience.

In addition, due to the strong mathematical component of the taught course in the first year and the quantitative emphasis in our projects, a minimum of a grade B in A-level Maths or an —equivalent qualification or experience —is required.

If English is not your first language you will need to have achieved at least 6.5 in IELTS (and no less than 6.5 in any section) by the start of the programme. Please refer to the relevant institution for further information about equivalent language qualifications.

Eligibility: —The Doctoral Training Partnership welcomes applications from both UK and EU applicants; however, as a consequence of the EU referendum result, final award decisions will depend on the outcomes of the UK/EU negotiations. If the Research Council (BBSRC in this instance)

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ClarkU AnnelidEvoDevo

A PhD position is available in the laboratory of Néva Meyer at Clark University in Worcester, MA USA beginning late August 2019 as follows:

Spiralians are a great group of animals to study evolution of body plans in part because many spiralian taxa develop via a stereotypic and likely ancestral cleavage program. Ultimately, this cleavage program results in formation of highly diverse body plans with diverse arrangements of nervous systems, e.g. compare annelids and gastropod mollusks. Research in Dr. Meyer's lab is currently focused on understanding how the central nervous system develops in annelids with the goal of gaining a better understanding of how nervous systems evolved. The research community that studies evolution and development of spiralians is rapidly growing and is very welcoming and collaborative.

The successful applicant will develop a project focused on molecular control of neural fate specification in the annelid Capitella teleta, but this can be expanded to include other spiralians and different avenues of research depending on the applicant's interests and goals. Possible avenues of research include analysis of fate specification via blastomere isolation, genetic manipulation, and transcriptomic profiling. We have a lab colony of Capitella teleta, and techniques used in the lab include microinjection of embryos, qRT-PCR, immunohistochemistry, imaging of live and fixed tissue, quantification of phenotypes using ImageJ, and gene knockdown and misexpression by injection of morpholinos and mRNA. We are also currently developing CRISPR/Cas9 gene editing and single-cell RNA sequencing in C. teleta.

There will be multiple opportunities for career development, including mentoring undergraduate and accelerated M.S. students in the lab, participating as a guest lecturer in courses taught by the PI, and attending national workshops such as the Embryology course at the Marine Biological Laboratories.

The successful applicant will enter Clark University's Biology PhD program with an anticipated start date in late August. Previous experience in molecular biology and working with marine larvae and/or bioinformatics is desirable. Additionally, the Meyer lab is interested in creative, engaged applicants who can contribute to diversity of the academic community, for example via outreach or mentoring students from historically underrepresented communities. The successful applicant will be guaranteed funding for five years through a combination of research assistantships and teaching assistantships; two years of research assistantship for this position are currently available.

Clark University is a small but active and highly respected research university located in Worcester, MA. Worcester has a good combination of urban and outdoor activities and is in close proximity to a variety of New England destinations.

Please email a cover letter explaining your interest in the position and qualifications and a CV to nmeyer@clarku.edu.

Néva P. Meyer, Ph.D. Associate Professor Clark University Department of Biology 950 Main Street Worcester, MA 01610

Neva Meyer <NMeyer@clarku.edu>

ClarkU MA ReptileLocomotion

Dr. Philip Bergmann's Evolutionary Functional Morphology Lab at Clark University is recruiting a Ph.D. student to begin in Fall 2019. The Bergmann lab studies form-function relationships in an evolutionary and ecological context, primarily using reptile and amphibian locomotion as a study system. The main research foci are (1) how form-function relationships work and are affected by factors such as ontogeny and substrate, and (2) the evolution of snake-like body shapes from phenotypic, functional, and ecological perspectives. Tools used by the lab to address these questions include high-speed video and X-ray video, force plates, EMG, dissection, behavioral observations, field work, and model-

ing/simulation approaches.

Graduate students should be self-motivated and have prior research experience. They will be encouraged to develop their own projects within the context of the lab research. Interested students should contact Dr. Bergmann (pbergmann@clarku.edu) prior to applying with any questions they may have, a cover letter that includes their research interests, CV, and names and e-mail addresses for two references. The Biology Department at Clark University is small but vibrant, providing students the opportunity to gain experience in research, teaching, mentoring, and outreach. Support by way of Teaching Assistantship is guaranteed for five years, and includes tuition waiver. The application deadline is January 15, 2019.

For more information, visit: Bergmann Lab: http://www2.clarku.edu/faculty/pbergmann/ Biology Department: http://www2.clarku.edu/departments/biology/ Graduate Admissions: http://www.clarku.edu/admissions/graduate-admissions Philip J. Bergmann Associate Professor Biology Department Clark University 950 Main Street Worcester, MA 01610

Philip Bergmann <PBergmann@clarku.edu>

CornellU MarineConservationGenomics

GRADUATE POSITION IN MARINE CONSERVATION GENOMICS

The Hare Lab at the Department of Natural Resources, Cornell University, is seeking a PhD student interested in using genetic/genomic approaches to measure and understand adaptive capacity of populations for application in fisheries management and population restoration contexts. Interested candidates should apply to the Natural Resources Graduate Field at Cornell.

Studies relating to adaptive capacity in the Hare Lab draw from population genetic, phylogeographic and ecological genomic approaches. We seek students interested in understanding and manipulating eco-evolutionary processes to maintain population viability. Relevant studies might include a test for local adaptation in a natural population, measurement of the environmental factors impacting fitness at different geographic scales, and experimental tests of interacting factors such as gene flow, phenotypic plasticity, genetic load and the complexity of genomic contributions to trait variation.

Our Lab includes studies applying genetic markers in a wide range of conservation/management settings, with a diversity of taxa, in addition to more basic research motivated by conservation/management imperatives. For the open position a background and interest in evolutionary/population genetics, ecology, or computational biology is preferred.

To find out more about the Hare Lab visit: https://blogs.cornell.edu/harelab/ or contact Matt Hare for more information: mph75@cornell.edu. The Natural Resources graduate field has a diverse multidisciplinary faculty and a rich, synergistic population of graduate students working on many aspects of conservation and management. In addition, the Hare Lab interacts with many genomics labs participating in the Cornell Center for Comparative Genomics and the Center for Vertebrate Genomics.

Representative recent papers: Local adaptation of a marine invertebrate with a high dispersal potential https://www.int-res.com/abstracts/meps/v505/p161-175/ Reef-specific patterns of gene expression plasticity in eastern oysters https://academic.oup.com/jhered/article/107/1/90/2622827 Survival of oyster larvae in different salinities depends on source population within an estuary https://www.sciencedirect.com/science/article/pii/S0022098113003067 The official Natural Resources graduate field application deadline is Dec. 1, 2018. Applicants are encouraged to submit their application by that date to be eligible for a wider range of funding opportunities.

More information on the application process can be found at the website: https://dnr.cals.cornell.edu/graduate/ Cornell University is an Equal Opportunity Institution. Individuals from under-represented groups in STEM are particularly encouraged to apply.

Dr. Matthew Hare Associate Professor Faculty Fellow, Atkinson Center for a Sustainable Future Department of Natural Resources 205 Fernow Hall Cornell University Ithaca, NY 14850 mph75@cornell.edu 607-255-5685 https://blogs.cornell.edu/harelab/ "Matthew P. Hare" <mph75@cornell.edu>

DurhamU 2 EcolEvolutionGenetics

Two competitive PhD studentship opportunities are available in evolutionary ecology and genetics at Durham University, UK. These fellowships provide a full tuition fee waiver for the duration of study (3.5 years), a competitive living stipend, and a considerable research allowance. For more information about these projects and how to apply see https://sites.google.com/site/andreannajwelch/jointhelab/phd-studentship-opportunities or contact Dr. Andreanna Welch at a.j.welch@durham.ac.uk. Only the best applicants will be asked to submit a full application.

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 15-minute train ride of the thriving city of Newcastle. The department of Biosciences offers a supportive research-driven environment with projects ranging from the cellular to the ecosystem level.

AVAILABLE PROJECTS:

1) BIODIVERSITY AND ECOSYSTEM SERVICES: BIRDS, BATS, BEES, AND COCOA TREES

Primary supervisor: Dr. Andreanna Welch (Durham University) Co-supervisors: Dr. Darren Evans (Newcastle University) Eligibility: British citizens or EU citizens who have resided in the UK > 3 years Full Application Deadline: 14 January 2019, but contact Dr Welch by early January to express interest

Human populations are increasing rapidly and consumption is intensifying. At the same time biodiversity, which provides critical ecosystem services, is being lost at an unprecedented rate. Realisation of this crisis has created an urgent need to balance agricultural production with biodiversity. These two objectives are not disjoint, and indeed, biodiversity can play an integral role in increasing agricultural yieldsXsustainably. To achieve balance, we must manage ecosystems for species that provide support for crops (service species, e.g. species that provide pest control) as well as those that encourage biodiversity (species), and especially those that provide both functions (-over species).

To truly work towards this balance, we must first understand the food web, because species vary greatly in their value for agriculture and biodiversity services. The student will use state-of-the-art genetics methods to deduce the diets of animals in the food web of plants, birds, bats and arthropods in African cacao plantations (the main ingredient of chocolate). He or she will address:

A) Which member species are most influential in encouraging crop yields and/or increasing biodiversity?

B) Do the above insights change depending on the context of the landscape, e.g. at sites near or far from forest?

C) How can we use the above insights to manage ecosystems that are both diverse and high-yielding?

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2) FANTASTIC FAT AND THE EVOLUTION OF CAPITAL AND INCOME BREEDING STRATEGIES IN SEALS

Primary supervisor: Dr. Andreanna Welch (Durham University) Collaborators: Prof. Rus Hoelzel (Durham University) Eligibility: Open to all students Full Application Deadline: 9 January 2019, but contact Dr Welch by early January to express interest

Seals are often considered icons for how organisms evolve to adapt to their environment, and they have developed several strategies to finance their breeding attempts. The females of some species, called capital breeders, build up large fat reserves, allowing them to give birth and nurse their pups for periods of up to several weeks without feeding. These females may transfer as much as 30% of their body mass to their pups, and seal milk contains the highest levels of fat of any mammal species. The females of other species, called income breeders, dont build large fat reserves, and instead regularly leave their pup to forage. Within the family Phocidae, Southern elephant seals (Mirounga leonina) are champion capital breeders, while Weddell seals (Leptonychotes weddelli) use mixed strategies, and the harbour seal (Phoca vilutina) relies more strongly on foraging while nursing their pups. It remains unclear how the physiology of seals has evolved to cope with these strategies.

This project will use genome-scale data to address the following questions:

A) What is the evolutionary history of phocid seals and what are the phylogenetic relationships between capital and income breeding species?

B) Have strictly capital breeding species evolved specially adapted cellular pathways to convert energy to fat, store it, and then mobilize it to produce milk with extremely high fat content?

C) Does differential gene expression play a role in facilitating the use of mixed strategies?

Andreanna J Welch <andreanna05@gmail.com>

DurhamU KelpBiodiversity

Competitive PhD studentships available in the Molecular Ecology Group at Durham University:

1) Eco-evolutionary processes affecting biodiversity in British kelp forest communities V supported by NERC DTP IAPETUS (http://www.iapetus.ac.uk/). The student will use genomic methods to compare the host kelp species with three dependant herbivore species to better understand the mechanisms that determine community structure in coastal marine ecosystems. See: http://www.iapetus.ac.uk/iap2-18-19-eco-evolutionary-processes-affecting-biodiversity-in-british-kelp-forest-communities/ 2) Next generation conservation genetics at sea: detecting and conserving adaptive potential V supported by the Durham Doctoral Studentship. The students will test hypotheses about the mechanisms that generate distinct patterns of diversity at functional loci across marine environmental gradients using high resolution data and working with reference genomes.

3) Tracking the impact of the Eemian interglacial on the ecology and evolution of British ungulates V supported by the Whitehead Trust. The student will use ancient DNA to test hypotheses about the change in genetic diversity over time comparing Eemian and modern populations of deer species indigenous to the British Isles throughout the relevant period, and about the environmental context for evolutionary change.

4) Predicting risk and planning mitigation against regional impact from climate change on populations of Arctic char (Salvelinus alpines) V supported by the Durham Arctic CDT (https://www.dur.ac.uk/arctic/). The key objective will be to use genetic, fatty acid and ecological analyses to compare high Arctic populations from Svalbard with lower latitude populations in the UK to better understand the adaptive differences and potential for adaptation or acclimation to a changing climate in the Arctic environment.

5) Promoting crop productivity and resilience through managed ecosystem biodiversity V supported by our BBSRC DTP. This project will integrate data on ecosystem diversity, function and services into strategies to help improve the productivity and resilience of crops. Metabarcoding will be used to assess biodiversity from soil samples and from scat samples of the potential predators of crop pests living in farmland habitat, and these data compared with metrics on crop productivity.

For more information about specific projects (detailed summaries available) please contact Prof. Rus Hoelzel (a.r.hoelzel@dur.ac.uk). Applications will be due in January and should include a c.v., transcripts from undergraduate and post-graduate studies, a cover letter mentioning the project of interest, and 2 letters of support (sent independently to Prof. Hoelzel). Full support would only be provided for UK nationals with the exception of project 2, which is open to all nationalities.

"HOELZEL, RUS A.R." <a.r.hoelzel@durham.ac.uk>

EastTennesseeStateU DaphniaEvolution

A PhD position is available at East Tennessee State University to study life-history, biochemistry, and physiology of an emerging model organism Daphnia (Crustacea: Cladocera) in context of aging and longevity. This is a collaborative project with Prof. Marc Kirschner's lab at Harvard Medical School and possibilities exist for research visits and other collaborative work with the Harvard Daphnia team. Questions to be addressed include structural and physiological changes that accompany senescence and their reversal during asexual oogenesis, mechanisms of caloric restriction and epigenetic effects on longevity, and trade-offs between longevity and other life-history parameters.

East Tennessee State University is located in a spectacular area of Appalachian mountains which provides excellent opportunities for hiking, boating, hunting, skiing etc. The Department of Biological sciences consists of 17 faculty and several adjuncts with research interests ranging from ornithology to aquatic biology to plant biochemistry and everything in between. We strive to offer a vibrant, diverse, and encouraging academic environment.

Position starts in the Fall of 2019; BS in biology or related field is expected by the start date.

Please contact Lev Yampolsky <yampolsk@etsu.edu> with questions about this position and Daphnia longevity project. Apply at https://www.etsu.edu/-gradstud . Preferred date for application is March 1, 2019, but applications will be considered until the position is filled.

Lev Yampolsky

Professor Department of Biological Sciences East Tennessee State University Box 70703 Johnson City TN 37614-1710 Cell 423-676-7489 Office/lab 423-439-4359 Fax 423-439-5958

"Yampolsky, Lev" <YAMPOLSK@mail.etsu.edu>

GeisenheimU ArnicaAdaptation

The Department of Applied Ecology of Geisenheim University, Germany, invites applications for a

PhD position (salary level TVÂH E13, 65%)

in the research group of Biodiversity and Ecosystem Functions. The 3Âyears position, starting in February 2019, is located at the interface between ecological genetics, chemical ecology and species distribution modelling in the scope of the joint project Signatures of local adaptation in secondary metabolite profiles and candidate genes of Arnica montana along environmental gradients. Objectives are the determination of genotype and chemotype variation among Arnica populations reflecting local adaptation to major environmental forces as a key prerequisite for identifying evolutionary significant units within the species'range. Aim is to determine suitable donor populations for restoration purposes and to assess potential future threats due to climate change. The projection of the species range shifts serves to develop management concepts for species restoration in the long run.

The project is jointly organised by Geisenheim and Marburg University (Conservation Biology group) in collaboration with the German Federal Institute for Risk Assessment. The successful candidate will work in an exciting research environment for ecological, evolutionary and environmental topics and will strongly benefit by the PhD program of the Geisenheim graduate school as well as by a current joint project (www.arnikaÂhessen.de) related to the outlined objectives.

Your profile

ïÂ§- Excellent MSc degree or equivalent in ecology, evolutionary biology, bioinfomatics or a related discipline

- Knowledge or experience in ecological genetics, bioinformatics or species distribution modelling

- Good knowledge of ecological statistics (using R)

- Interest in analysing large data sets and work across disciplines

- Proficiency in English (spoken and written)

- Willingness to travel to conduct sampling across Eu-

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- Driving licence (Class B)

Applications

Applicants should send their CV, a short motivation letter with a summary of research experience and interests, certificates, the master's thesis abstract and the names of 2 professional referees as a single pdfÂfile (max. 5 MB) before 10.12.2018 to Geisenheim University, Personalabteilung, VonÂLadeÂStr. 1, DÂ65366 Geisenheim/Germany or email: personal@hsÂgm.de. For thematically focused inquiries please contact Prof. Dr. Ilona Leyer, email to ilona.leyer@hsÂgm.de or Dr. Sascha Liepelt, email to liepelt@uniÂmarburg.de.

Geisenheim University is an equal opportunity employer. As such, we explicitly encourage applications from women. Applications from disabled persons with essentially the same qualifications will be given preference.

Please note: By sending the application, you agree that your personal data will be stored for purposes of the appointment process.

Information about GU is available on

www.hsÂgeisenheim.de . Katja Reichel <katja_reichel@yahoo.de>

GeisenheimU ConservationGenetics

The Department of Applied Ecology of Geisenheim University, Germany, invites applications for a

PhD position (salary level TV-H E13, 65%)

in the research group of Biodiversity and Ecosystem Functions. The 3-years position, starting in February 2019, is located at the interface between ecological genetics, chemical ecology and species distribution modelling in the scope of the joint project Signatures of local adaptation in secondary metabolite profiles and candidate genes of Arnica montana along environmental gradients. Objectives are the determination of genotype and chemotype variation among Arnica populations reflecting local adaptation to major environmental forces as a key prerequisite for identifying evolutionary significant units within the species'range. Aim is to determine suitable donor populations for restoration purposes and to assess potential future threats due to climate change. The projection of the species range shifts serves to develop management concepts for species restoration in

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§Excellent MSc degree or equivalent in ecology, evolutionary biology, bioinfomatics or a related discipline

§Knowledge or experience in — ecological genetics, bioinformatics or species distribution modelling

§Good knowledge of ecological statistics (using R)

§Interest in analysing large data sets and work across disciplines

§Proficiency in English (spoken and written)

§Willingness to travel to conduct sampling across Europe

§Driving licence (Class B)

Applications

Applicants should send their CV, a short motivation letter with a summary of research experience and interests, certificates, the master's thesis abstract and the names of 2 professional referees as a single pdf-file (max. 5 MB) before 10.12.2018 to Geisenheim University, Personalabteilung, VonÂLadeÂStr. 1, D-65366 Geisenheim/Germany or email: personal@hs-gm.de. For thematically focused inquiries please contact Prof. Dr. Ilona Leyer, email to ilona.leyer@hs-gm.de or Dr. Sascha Liepelt, email to liepelt@uni-marburg.de.

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Information about GU is available on www.hs-geisenheim.de Eva.Mosner@hs-gm.de

IdahoStateU TroutGenomics

Ph.D. or M.S. Graduate Assistantship, Genomics applied to phenotypic diversity in native trout, Idaho State University, Pocatello, Idaho, USA

GRADUATE ASSISTANTSHIP (Ph.D. or M.S. in Biological Sciences) in the Department of Biological Sciences at Idaho State University. A position is available for a Ph.D. or M.S. student to investigate the genomic and population genetic mechanisms underlying phenotypic diversity in populations of trout inhabiting different environments. The successful candidate will have the opportunity to work collaboratively with geneticists, ecologists, and modelers across different academic institutions and government agencies. The position will contribute to an interdisciplinary research program addressing the National Science FoundationÃ-s research priority of assessing the contribution of genetic and environmental factors to phenotypic expression.

The successful student will work closely with our research team that includes, but is not limited to, collaborators at Boise State University, University of Idaho, and agencies such as the USGS, the USFS, and the BLM. The student will participate in: 1) laboratory work that involves population genetic, genomic and transcriptomic analyses, and 2) field work, including population sampling and potentially setting up common-garden experiments. Training for both laboratory and field activities will be provided by team members who offer expertise in genomics, population genetics, physiology, morphometrics and ecology, to provide the student with diverse skills sets and scientific networks so they will be broadly prepared for future career opportunities.

Qualifications We are seeking someone who has: 1) strong writing and quantitative skills and 2) analytical laboratory experience. Competitive students will have: 1) a MasterÃ-s or undergraduate degree in a relevant field; 2) experience in population genetics, genomics, transcriptomics, and/or related bioinformatics; 3) foundational knowledge in evolution, population genetics, ecology. Please address your qualification for each of these points in your cover letter (see Ã'To ApplyÃ' below). The position starts Fall (August) 2019.

Stipend and tuition and fees This position includes support in the form of a graduate assistantships (renewable, 12-month at $25,000), tuition and fee waiver, and health insurance.

To Apply Please send via email in a single file attachment (include your last name in the file name): 1) a cover letter that states qualifications and career goals; 2) a CV with the names and contacts for 3 references (they do not need to provide a letter of recommendation at this time); 3) copies of transcripts (unofficial are O.K.); and 4) GRE scores and percentiles (not combined) to Dr. Janet Loxterman (loxtjane@isu.edu). Please put Ã'Graduate applicationÃ' in the subject line.

Applications will be reviewed as they are received until January 30, 2019. Top candidates will be interviewed and asked to formally apply to Idaho State University. Final admission decisions are approved by the Biological Sciences Graduate Curriculum Committee and the Graduate School.

Idaho State University embraces and welcomes diversity in its faculty, student body, and staff. Accordingly, applicants who would add to the diversity and excellence of our academic community are encouraged to apply.

Janet Loxterman <loxtjane@isu.edu>

ImperialC London AvianTelomereEvolution

A PhD position is available at the house sparrow lab at Imperial College London, Silwood Park Campus:

Trans-generational effects of age

Inheritance can occur via non-genetic, yet heritable, mechanisms. The resulting trans-generational effects can influence how selection acts and traits evolve. The idea is that any trauma like environmental stress or age, can be somehow inherited, and then influence the phenotype in offspring and future generations. However, we do not know the fitness consequences linked to trans-generational mechanisms. This student project will investigate the trans-generational effects of ageing, using telomere biology. Telomeres are biomarkers that predict reduced longevity with age. These non-coding DNA repeats protect the chromosome ends and shorten over time. Studies consistently link changes in telomeres (telomere length and/or dynamics) with age and predicted longevity. There is evidence for both heritable and non-genetic influences on telomere length, but most studies point to trans-generational effects V specifically, maternal and paternal effects V explaining some variation in telomere dynamics. Therefore, this project will examine trans-generational effects, and inheritance, in

telomeres in a wild bird population.

The student will use a longitudinal molecular database of telomere measurements from a wild house sparrow population, and support those with focused breeding experiments in the lab. A better understanding of the mechanisms that underlie the constraints imposed by ageing and trauma will significantly further the field, help explain trauma resilience, life-history diversity, the evolution of longevity and may guide the way towards a healthy, long life.

This project requires a strong analytical interest in using large dataset for statistical analysis. Excellent training in quantitative biology, behavioural ecology and animal care is available to the successful applicant. Also, this project involves field work on Lundy island with wild birds, so a willingness to spend time on a remote location working with wild birds is needed. The student would be based in Imperials beautiful Silwood Park Campus 25 miles West of Central London, situated in about 100ha natural parkland, with a buzzing population of 120+ graduate students and 30 world-renown researchers, with excellent opportunities for collaboration with colleagues in Clinical Science at Imperial, and at the University of Sheffield.

To apply, please send your CV & cover letter to julia.schroeder@imperial.ac.uk.

The SSCP DTP will award 14 fully funded studentships next year which include home/EU tuition fees, a London-weighted stipend, and an additional consumables budget. Please note that as part of the funding conditions, SSCP DTP students attend skills and careers training along with outreach activities. For further information please visit the Programme pages. http://www.imperial.ac.uk/grantham/education/-science-and-solutions-for-a-changing-planet-dtp/
Eligibility Criteria Applicants should be aware that as these studentships are funded through NERC (Natural Environment Research Council), to be eligible for a full award they must have either: - British Citizenship or; - Settled status in the UK, meaning they have no restrictions on how long they can stay, - Been Ÿordinarily resident in the UK for 3 years prior to the start of the studentship. For non-EU citizens, this must NOT have been in full time education. This means they must have been normally residing in the UK (apart from temporary or occasional absences). This does not apply to UK nationals.

Julia Schroeder <julia.schroeder@gmail.com>

ImperialC London LinkingInfidelityBehaviour

A PhD position is available at the house sparrow lab at Imperial College London, Silwood Park Campus:

Linking infidelity with social behaviour

Infidelity is common among many taxa with prevailing social monogamy, but we still do not know what shapes variation in and drives the evolution of, extra-pair behaviour. Males are expected to reap fitness benefits from siring extra-pair offspring because extra-pair fathers do not expend resources on costly parental care. This is, however, not the case for females who raise the resulting extra-pair young, posing the question of why females take part in extra-pair matings. The indirect benefits hypothesis explains female infidelity, where females benefit indirectly from better, or more compatible genes for their offspring. However, this hypothesis is not well supported empirically, evidenced by two contradictory meta-analyses on the topic, and ongoing discussion in the field, suggesting that this hypothesis does not satisfactorily explain why females cheat. The recently suggested novel, testable hypotheses provide a fresh perspective. These hypotheses explain female infidelity with intra- and intersexual antagonistic pleiotropy, and remain largely untested. This project aims to empirically test these hypotheses by using the powerful combination of long-term data from a wild population, state-of-the-art social network analysis and manipulative experiments on captive birds. This project will reap the benefits from long-term data in the wild, where precise fitness data and a genetic pedigree allow fitness costs and benefits to be measured, and quantitative genetic analyses. Given the long-standing conundrum of female extra-pair behaviour, this project has the potential forward this field significantly. Methodologically, using social network analysis to test hypotheses in evolutionary biology is not straightforward, because data points are relational and thus not independent. This studentship will explore recent suggestions of randomization for social network analysis in behavioural ecology, and develop respective tools for quantitative genetic analyses. A good understanding of numerical analyses, linear mixed models, and randomizations is thus required. Data collection will take place using automatical RFID tags, in a captive and in a wild population of house sparrows. Thus, this studentship will also require

some skills and enthusiasm for working with animals.

This project is in collaboration with Andrs Gyorgy from the Faculty of Engineering.

Note that this project can involves field work, with birds in the laboratory, or mainly desk-based computer analyses, in any combination, depending on the student's interests and skills. The student would be based in Imperials beautiful Silwood Park Campus 25 miles West of Central London, situated in about 100ha natural parkland, with a buzzing population of 120+ graduate students and 30 world-renown researchers, with excellent opportunities for collaboration with colleagues from the Faculty of Engineering at Imperial, and at the University of Sheffield.

To apply, please send your CV & cover letter to julia.schroeder@imperial.ac.uk. Funded by the QMEE NERC DTP http://www.imperial.ac.uk/qmee-cdt/-about/ Applicants should be aware that as these studentships are funded through NERC (Natural Environment Research Council), to be eligible for a full award they must have either: British Citizenship or; Settled status in the UK, meaning they have no restrictions on how long they can stay, Been ordinarily resident in the UK for 3 years prior to the start of the studentship - (For non-EU citizens, this must NOT have been in full-time education.)This means they must have been normally residing in the UK (apart from temporary or occasional absences). This does not apply to UK nationals.

"Schroeder, Julia" <julia.schroeder@imperial.ac.uk>

ImperialC London PopGenetics

A PhD position is available at Imperial College London to work at the interface between population genetics and deep learning.

The project is supervised by Matteo Fumagalli and co-supervised by Professor Xia Hong from University of Reading.

Full information on the project can be found here

https://mhasoba.pythonanywhere.com/qmee_cdt/-default/view_proposals/view/proposals/52   The successful student will join the QMEE CDT cohort, the NERC Centre for Doctoral Training in Quantitative and Modelling Skills in Ecology and Evolution, whose aim is to solve real-world ecological and evolutionary problems by connecting theory, data, and practice.

The post is with the Department of Life Sciences, Silwood Park campus (Ascot). The Department of Life Sciences was the top ranked university department in the UK for research intensity in Biological Sciences in REF2014 (Times Higher Education), scoring 100% on our environment.

Applicants should be either UK citizens or EU citizens living in the UK for the past 3 years. Candidates should submit a cover letter and CV to Matteo Fumagalli m.fumagalli@imperial.ac.uk before January 16th 2019.

"Fumagalli, Matteo" <m.fumagalli@imperial.ac.uk>

ImperialC Silwood MosquitoSexualSelection

A PhD position is available at the Imperial College London, Silwood Park Campus:

Mosquito-borne diseases are thought to directly impact the well-being and livelihood of at least one-third of the human population. Our ability to control mosquito-borne diseases heavily relies on reducing mosquito populations. However, the growing incidence of insecticide resistance threatens current control tools. Several new strategies will involve the release of laboratory-reared males which will need to compete successfully with wild males for mates. Thus, these new strategies will be greatly facilitated by an improved understanding of the determinants of male mosquito mating success.

Recently, we manipulated the strength of male competition in replicate populations of the Yellow Fever mosquito, Aedes aegypti. This species is both an important arbo-virus vector and one of the main targets of reproductive control releases. We found that manipulation of the level of male-male competition in mating environments affects both male competitive mating success and other important behavioural and life history traits. In this project, we will explore the genetic signature of selection in these replicated populations by sequencing of pools of individuals from our no competition and high competition populations at several time points from the course of experimental evolution. This will allow us to assess the degree to which phenotypic changes are associated with changes in the genome, the localizability of these changes, and the relative influences of genetic drift and selection on the observed evolutionary response. We will combine this with a

set of experiments in a genetically variable mosquito population that will compare allele frequencies between more and less successful males ('winners' and 'losers' in sexual competition).

The student will be supervised at Imperial College's Silwood Park Campus by Dr. Lauren Cator and Prof. Austin Burt, experts in mosquito mating behaviour and population genetics. Additionally, the student will be supervised by Dr. Brian Hollis of EPFL an expert in evolutionary genetics of sexual selection. The student will gain skills in mosquito behaviour, genomic techniques, bioinformatics, and population genetics.

To apply, please send your CV & cover letter to l.cator@imperial.ac.uk with the subject line "NERC-DTP:Your Surname"

Eligibility Criteria Applicants should be aware that as these studentships are funded through NERC (Natural Environment Research Council), to be eligible for a full award they must have either: - British Citizenship or; - Settled status in the UK, meaning they have no restrictions on how long they can stay, - Been ordinarily resident in the UK for 3 years prior to the start of the studentship. For non-EU citizens, this must NOT have been in full time education. This means they must have been normally residing in the UK (apart from temporary or occasional absences). This does not apply to UK nationals.

This project is funded through the NERC Science and Solutions for a Changing Planet DTP. This year the SSCP DTP will award 14 fully funded studentships next year which include home/EU tuition fees, a London-weighted stipend and an additional consumables budget

For further information please visit the Programme pages. http://www.imperial.ac.uk/grantham/-education/science-and-solutions-for-a-changing-planet-dtp/ "Cator, Lauren J" <l.cator@imperial.ac.uk>

IowaStateU EvolutionInsectResistance

A graduate assistantship, for a Ph.D. candidate, is available in the Department of Entomology at Iowa State University. This assistantship will provide support to study the evolution of resistance to transgenic crops by insect pests, with a focus on western corn rootworm and transgenic corn that produces insecticidal proteins derived from the bacterium Bacillus thuringiensis (Bt).

The western corn rootworm is one of the most serious agricultural pests in the United States and has evolved resistance to Bt corn in several regions. Research conducted under this assistantship will aim to characterize resistance to transgenic corn by western corn rootworm within the agricultural landscape, measure the inheritance and fitness trade-offs of resistance traits, and apply quantitative trait locus mapping and genomic approaches to determine the genetic basis of resistance. This assistantship will cover tuition, stipend and health insurance. Iowa State University is ranked among the top universities in the world for the study of agriculture, and graduates from the Department of Entomology have career opportunities in academia, government and industry. Iowa State University is located in the city of Ames, which is ranked among the best cities to live in the United States. To learn more about the Department of Entomology, visit http://www.ent.iastate.edu/ . If you are interested in this assistantship, please contact Aaron Gassmann (aaronjg@iastate.edu).

Aaron Gassmann Associate Professor Department of Entomology Room 2009 ATRB 2213 Pammel Drive Iowa State University Ames, IA 50011-1101 Ph: 515-294-7623 http://www.ent.iastate.edu/dept/faculty/gassmann/ "Gassmann, Aaron J [ENT]" <aaronjg@iastate.edu>

LaurentianU CalgaryZoo FrogConservation

We are seeking one MSc student to join the Centre for Evolutionary Ecology and Ethical Conservation (http:/-/ceeec.wordpress.com) at Laurentian University to be part of the recovery strategy for the Northern Leopard Frog in Western Canada in partnership with the Calgary Zoo.

This species is currently part of a conservation breeding and recolonization program. To determine the likelihood of success, the student will assess two key characteristics. First, considering that the captive bred frogs should show similar genetic diversity to the wild populations, what is the genetic composition of the remaining Leopard frogs and is a rescue needed to increase genetic diversity? Second, given that the captive bred frogs must have adequate disease resistance, which in the case of the common chytrid infection is conveyed principally through the skin microbiome, what are the effects of captivity on the microbiome of the Leopard frog?

In this context, the student will work by combining

fieldwork, population genetics analyses and experiments depending on his/her interests. Good aptitude for fieldwork, molecular ecology skills and some herpetological knowledge are expected as well as good communication skills.

Starting date: Candidates are expected to commence their studies between January and March 2019.

Funding: Full funding of approximately $25,000/year is guaranteed for 2 years through a combination of TAships and RAships. Additional scholarships will be available by competition.

How to apply: Interested students should contact us via email, including a cover letter describing background and interests (including specific interests in my lab), cv, transcripts (unofficial is fine).

Dr. David Lesbarrères (dlesbarreres@laurentian.ca) Dr. Lea Randall (LeaR@calgaryzoo.com)

– – "It takes all the running you can do to keep in the same place."

Dr. David Lesbarrères, Associate Professor / Professeur agrégé Dean, Faculty of Graduate Studies / Doyen, Faculté des études supérieures

Genetic & Ecology of Amphibians Research Group (GEARG) Department of Biology - Laurentian University

http://gearg.jimdo.com/ 935 Ramsey Lake Road, Sudbury, Ontario P3E 2C6, Canada phone: 705-675-1151 <7056751151> ext. 3232 Fax: 705-671-3840 <7056713840> @sudburyfrog

dlesbarreres@laurentian.ca

LeMansU MarineTaxonomy

PhD Student position available in marine ecology from January 2019.

Le Mans University (Le Mans, France) is looking for a highly motivated candidate that is keen to travel, to dive into the sea but also to perform labwork and bioinformatic analysis. Indeed, this project consists in characterizing a marine community, including morphology, taxonomy and "omics" approaches. It will include several field work campaigns as well as international mobility.

The position is available for 3 years and will start in January 2019.

For further informations, please contact : myriam.badawi@univ-lemans.fr Vincent.Leignel@univ-lemans.fr Jean-Luc.Mouget@univ-lemans.fr

You can apply by sending a resume and a cover letter.

– Assistant Professor - Maître de Conférences Laboratoire Mer Molécules Santé MMS EA2160 Le Mans Université Avenue Olivier Messiaen F-72085 Le Mans Cedex 9 +33 2 43 83 39 21 http://mms.univ-lemans.fr/ https://www.researchgate.net/profile/Myriam_Badawi Myriam Badawi <Myriam.Badawi@univ-lemans.fr>

Lisbon ClimateAdaptation

INTERNATIONAL CALL: RECRUITMENT OF ONE PHD SCIENTIFIC RESEARCHER

Title: Researcher for project "ADAPTCLIMWARM - Real-time evolutionary response to climate warming: a multi-level approach in populations of contrasting biogeographical history"

Location: cE3c - Centre for Ecology, Evolution and Environmental Changes, Lisbon

Responsible Investigator: Pedro Simoes - https://bit.ly/2QF7wj5 Job URL in eracareers: https://bit.ly/2RPUmQj Job/Fellowship Reference: # 2617

Contract length: 33 months

Contract terms: 2.128,34 eur/ month gross salary (14 salaries/ year)

Application deadline: 23rd November 2018

Starting date: January 2019

An international call is open for the recruitment of a scientific researcher with a PhD degree, within the scope of project "ADAPTCLIMWARM - Real-time evolutionary response to climate warming: a multi-level approach in populations of contrasting biogeographical history" (PTDC/BIAEVL/28298/2017), in the form of an employment contract with an uncertain term.

The project ADAPTCLIMWARM consists of an evolution experiment to understand the tempo and mode of adaptation to climate change. This question will be analysed through experimental evolution, by studying the real-time evolution of Drosophila subobscura populations subjected to a climate warming scenario in a controlled laboratorial setting. Evolutionary changes will be addressed at different biological levels (life-history, physiological and morphological traits, chromosomal in-

versions and transcriptome) and including populations with different biogeographical histories to provide a detailed understanding of the thermal adaptation process.

The candidate will participate in the coordination and execution of the several project activities namely: maintaining laboratorial populations, carrying out experimental assays (e.g. thermal tolerance and preference, life-histories, chromosomal inversions) and performing data analyses (phenotypic and transcriptomic data).

Candidates must hold a doctoral degree in Biology, have specialised skills and/or expertise in the field of Evolutionary Biology, and fully comply with the following requirements:

- Demonstrated scientific and/or professional experience in Experimental Evolution and/or Evolutionary Genomics,

- Experience in the coordination of laboratorial activities, namely involving large experimental setups and maintenance of laboratorial stocks.

Place of work: Centre for Ecology, Evolution and Environmental Changes - ce3c (Faculdade de Ciências da Universidade de Lisboa).

This call is open between November 12-23, 2018.

Applications will be submitted online, through the electronic platform of FCiências.ID http://concursos.fciencias-id.pt. Please consult the full announcement in eracareers https://bit.ly/2RPUmQj Pedro Miguel Simões

Responsible Investigator Project ADAPTCLIMWARM ; PTDC/BIA-EVL/28298/2017

Centro de Ecologia, Evolução e Alterações Ambientais

(cE3c - Centre for Ecology, Evolution and Environmental Changes)

Departamento de Biologia Animal -Faculdade de Ciências da Universidade de Lisboa

Campo Grande, Edificio C2 - 1o Piso

Phone: +351 217500000 ext. 22130

1749-016 Lisboa

Portugal

Pedro Simões <pmsimoes06@gmail.com>

MasseyU EvolutionEndosymbiosis

2 PhD scholarships to investigate the evolution of endosymbiosis in Auckland, New Zealand

We are currently seeking two PhD students with interests in genetics, molecular evolution, and microbiology to conduct research into the evolution of endosymbiosis using an experimental co-evolution approach in beautiful Auckland New Zealand.

How to Apply:

Interested applicants are encouraged to make informal enquiries to Dr. Heather Hendrickson. Please send your Curriculum Vitae, a copy of your academic transcript, a sample of your written scientific work and the names of three referees with a cover letter to: H.hendrickson@massey.ac.nz

Applications will be accepted until the position is filled. It would be desirable if the successful applicant were able to start by mid 2019.

*Project Description: *

Complex eukaryotic life began when one free-living cell gave up independence and partnered with another. A major question in evolution concerns how such partnerships are able to form and stabilise. We will study the early steps in the establishment of endosymbiosis using an evolution experiment involving protozoan predators and bacterial prey. Candidates for endosymbiotic interactions will be investigated using a combination of cutting-edge genomic and transcriptiomic techniques, fluorescent microscopy and flow cytometry. These approaches will provide a mechanistic insight into the evolutionary paths that are successful for predation and a first glimpse into the process by which individual cells evolve to form partnerships with unrelated unicellular organisms.

This project is a collaboration between Dr Heather Hendrickson and Dr Elizabeth Ostrowski at the Institute of Natural and Mathematical Sciences, Massey University Auckland New Zealand. Professor Ant Poole, at neighboring Auckland University, is also a named associate investigator on this Marsden Funded project. There is a thriving molecular evolution community in the Auckland region including an engaged post-graduate cohort, a monthly regional evolution seminar series and frequent visiting faculty from abroad. For more infor-

mation about the Hendrickson lab see her lab website: http://microbialevolution.massey.ac.nz/ or find her on twitter @DrHHNZ.

The Ideal Candidate:

The ideal candidate will have experience in molecular genetics, genomics, evolutionary genetics and microbiology. Past experience in fluorescent microscopy is helpful but not required. The successful candidate will be motivated and organised, with a demonstrated capacity to master the broad skill set necessary for the successful completion of a research project. He or she will be a competent laboratory worker, with experience of all routine molecular genetic techniques, should be computer literate and have excellent communication skills.

*Auckland, New Zealand: *

The positions are based in the multi-disciplinary Institute of Natural and Mathematics Sciences (INMS) at Massey University in Auckland, one of the most livable cities in the world. Auckland is the largest city in New Zealand, set on the Hauraki gulf and surrounded by wineries, mountains, forests and beaches.

Minimum Qualifications:

B.Sc. (Hons) and/or M.Sc. in Genetics, Genomics, Molecular Biology or Microbiology equivalent with an A average or better.

Scholarship Funding:

Financial support via Marsden project funded PhD scholarships. This position is available in early 2019 and lasts for three years. The studentship covers all university fees and an annual tax-exempt stipend of NZ$27,500. Students with exceptional undergraduate marks may be eligible for a University Scholarship, which provides an increased stipend. Additional income may also be available from tutorial and laboratory supervision roles, although there is no formal teaching requirement.

Dr Heather Hendrickson Senior Lecturer, Molecular Biosciences Institute of Natural and Mathematical Sciences Massey University Private Bag 102904 North Shore Mail Centre Auckland, New Zealand

Office: Oteha Rohe Bldg. 14 W: +64 9 213 6634 email: H.Hendrickson@massey.ac.nz skype: hhendrickson http://microbialevolution.massey.ac.nz http:-//abate.massey.ac.nz/ orcid.org/0000-0003-3471-4397

NB: Due to my own family/work balance, you may get emails from me outside of normal working hours. Please do not feel any pressure to respond outside of your own working pattern.

hhendrickson@gmail.com

MaxPlanck Leipzig AvianBehaviourEvolution

Social Complexity and Communication Systems in Birds

We are seeking a PhD student to study the link between social and vocal complexity in birds. Vocalizations in birds can be socially learned and culturally transmitted, leading to a mosaic of distinct vocal dialects across populations. Theories of the evolution of vocal systems have proposed the 'social-complexity' hypothesis, which asserts that the diversity and complexity of communication signals is driven by the complexity of social interactions within groups, at both the proximate (individual, ecological) and ultimate (species, evolutionary) levels. This project will provide an empirical test of the social-complexity hypothesis. First, the student will investigate the interplay between social dynamics, population structure, and vocal call types in a wild parrot. Second, the project will include a comparative analysis across psittaciformes. The position is fully funded for 4 years, and open to students of any nationality.

Position Details: Research will involve collecting and analyzing demographic, behavioral, and acoustic data from multiple populations of birds, as well as conducting a comparative analysis of the published literature in parrots (order Psittaciformes). Experimental work in captivity or the wild addressing mechanisms of social learning and cultural transmission of vocal communication is also possible.

*Research Community: *The student will be a member of the International Max Planck Research School (IMPRS) for Organismal Biology < http://-www.orn.mpg.de/2453/Short_portrait >, a cooperative doctoral program between the Max Planck Institute for Ornithology and the University of Konstanz. The student will also be integrated with the Max Planck Institute for Evolutionary Anthropology in Leipzig, in the Department of Human Behavior, Ecology and Culture, where statistical and quantitative training in cultural evolutionary analyses will take place. The student should therefore be prepared to spend significant time in both locations.

*Qualifications: *Research will involve extensive independent field work, experimental work, bioacoustics analysis and quantitative data analysis. The ideal candidate should have experience in at least one of these areas as well as a strong desire to learn new skills. Demon-

strated ability to engage in independent research is expected. Applicants should have a masters degree or equivalent in ecology, animal behavior, zoology, or a related subject. The working language of the group is English, and German language skills are not a requirement.

*Location: *Radolfzell (Konstanz) and Leipzig, Germany.

*Application Process: *Applicants should apply via the IMPRS application system < http://www.orn.mpg.de/-2383/Application > (due 15 January 2019). Please include a CV, 1 page statement of your research interests, and contact details for at least two references. Start date will be between June and September of 2019.

Keywords: social complexity, cultural evolution, vocal learning, social systems, parrots, birds

*Advisors: *Mary   Brooke   McElreath (mary_mcelreath@eva.mpg.de)   and   Lucy   Aplin (laplin@orn.mpg.de)

Max Planck Institute for Ornithology < http://-www.orn.mpg.de/3880844/research-group-aplin > & Max Planck Institute for Evolutionary Anthropology < https://www.eva.mpg.de/ecology/staff/mary-brooke-mcelreath/index.html >

Mary Brooke McElreath, Ph.D. Max Planck Institute for Ornithology & Max Planck Institute for Evolutionary Anthropology Department of Human Behavior, Ecology and Culture Deutscher Platz 6 04103 Leipzig

phone: +49 (341) 3550 - 330 fax: +49 (341) 3550 - 333

Mary   Brooke   McElreath <mary_mcelreath@eva.mpg.de>

MichiganStateU FishEvoDevoGeno

PhD Positions in Fish Evolutionary Developmental Genomics

The Fish Evo Devo Geno Lab (PI: Ingo Braasch) at Michigan State University is recruiting highly motivated PhD students interested in working on the genomic basis of vertebrate evolution and development to start in Summer/Fall 2019.

The Braasch Lab focuses on genomic and developmental changes that contribute to major transitions during the course of vertebrate evolution and studies evolutionary novelties at the levels of genome structure, gene family

evolution, and gene regulation. We combine sequencing and comparative analyses of fish genomes with analyses of molecular evolution and functional genetic and developmental approaches (CRISPR genome editing, transgenics, gene expression analyses, epigenomic profiling) in a variety of model species (zebrafish, spotted gar, medaka, and others).

Graduate projects fall within the following broader research areas of the group:

1. Genomic and morphological evolution of fishes: How do morphological differences among fish and other vertebrate lineages arise from diversification of gene repertoires? What is the role of gen(om)e duplications and gene losses in generating phenotypic diversity? How do changes in gene regulation contribute to evolutionary novelties and key innovations? We study a number of gene families that are of particular importance for the evolution of the vertebrate body plan, e. g. genes involved in development of the vertebrate-specific neural crest cells.

2. Conquest of land and fish-out-of-water: We are studying genomic changes and their functional consequences leading to the evolution of tetrapods from fishes and other fish-out-of-water scenarios, including the evolutionary loss of genes at the water-to-land transition and the gene regulatory basis of hatching.

3. Evolutionary genomic analyses of zebrafish and other biomedical fish models: Combining genomic sequence comparisons, gene expression analyses and epigenomic profiling, we aim to improve connectivity of teleost biomedical fish models such as zebrafish, medaka, killifishes, etc. to human biology and disease. This work is support by the NIH.

For additional information on our research, see also Braasch et al. 2016, Nature Genetics (doi:10.1038/ng.3526) and Braasch et al. 2015, JEZB (doi:10.1002/jez.b.22589).

The Fish Evo Devo Geno Lab is part of the Department of Integrative Biology (IBIO), the Ecology, Evolutionary, and Behavior Program (EEBB), the Genetics Graduate Program at Michigan State University, and member of the NSF BEACON Center for the Study of Evolution in Action.

MSU IBIO has a strong research commitment to vertebrate biology with a highly collaborative community of groups working on vertebrate and fish evolution, genomics, development, population genetics, neuroscience, behavior, ecology, and conservation, allowing for vibrant exchange among fields, methods and model systems.

Qualifications: Applicants should hold a bachelors de-

gree in biology, genetics, genomics, molecular biology, bioinformatics, developmental biology, zoology or related fields. Suitable candidates should be enthusiastic about working in an interdisciplinary manner and have a passion for fish/vertebrate biology and evolution. Previous research experience in a relevant area is desired, but not required.

Admission: Students will be admitted through the MSU IBIO Graduate Program (https://-integrativebiology.natsci.msu.edu/graduate-program/) and the MSU Ecology, Evolutionary Biology, and Behavior Program (https://eebb.natsci.msu.edu/). Another possible route of admission is through the MSU Genetics Graduate Program within the MSU BioMolecular Science Gateway (https://biomolecular.natsci.msu.edu/-applicants/how-to-apply/).

Application deadline for the MSU IBIO and Genetics Graduate Programs are December 1, 2019.

Funding: Financial support is provided through research and teaching assistantships and the PIs external funding. Competitive applicants will be eligible for university fellowships and supported in applying for graduate fellowships from NSF, NIH, and other agencies.

Interested candidates should email Ingo Braasch (braasch@msu.edu) in advance of the application deadlines on December 1. Please include the following in your email:

1. Brief description of your research interests and how they align with pursuing a PhD in vertebrate Evo-Devo and genomics 2. Curriculum Vitae 3. Names and email contacts of 2-3 references

We are looking forward to your application!

Ingo Braasch

Assistant Professor Department of Integrative Biology College of Natural Science Michigan State University braasch@msu.edu; phone: +1 (517) 432-3484 Twitter: @fishevodevogeno http://www.fishevodevogeno.org/

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NHM London PathogenAdaptation

Evolution in action: using museum DNA (and fieldwork!) to understand disease resistance in island birds

Prof DS Richardson < https://people.uea.ac.uk/en/-persons/david-richardson > (UEA), Dr L Spurgin (UEA), Dr B Emerson (IPNA-CSIC), Dr Matt Clark (Natural History Museum)

CASE Project with Instituto de Productos Naturales y Agrobiolog??a and collaboration with Natural History Museum (RICHARDSON_UBIO19ARIES)

Many natural populations are facing a "double threat" of reduced genetic diversity and new pathogen challenges. Therefore, understanding how hosts adapt to pathogens in small and fragmented populations has important ramifications for conservation, epidemiology and evolution. However, we still lack fundamental understanding of the mechanisms that enable natural populations to respond and adapt to changing pathogen pressures. Next-generation sequencing methods combined with temporal sampling of wild populations now make it possible to undertake an exciting, powerful and timely investigation of these questions.

Methods

You will join a dynamic research programme assessing adaptation within island populations of Berthelot's pipit, and have full access to large-scale genetic, ecological and pathogen data. You will use museum specimens (1820s), alongside previously collected samples (2006) and fieldwork in

Macaronesia (2020), to quantify spatio-temporal immunogenomic variation among divergent populations known to differ in pathogen load. Genomes from contemporary samples will allow you to identify loci that show high or divergent variation across populations, and sequence capture will then be used to screen these loci across samples spanning 200 years. You will then use population genetic modelling to investigate the evolutionary forces driving immunogenomic variation over space and time.

Specific questions can be developed and prioritized according to your own interests but the work revolves around the following areas:

1. Identifying spatially and temporally divergent loci between populations

2. Investigating the role of mutational mechanisms in enabling change at divergent loci

3. Assessing the importance of pathogen-mediated selection and genetic drift in genetic change in small populations

4. Testing the role of different selection mechanisms in maintaining immunogenetic variation

Training

You will join a thriving, world class research group at UEA, spend at least three months at IPNA, (the case partner in Tenerife) and collaborate with the Natural History Museum, London.

You will gain

?? Molecular laboratory, bioinformatics and data analysis skills.

?? Ecological fieldwork experience

?? Understanding of evolutionary biology and conservation genetics

?? Training in critical thinking, scientific writing and the public communication of science

?? Extensive training to increase generic scientific skills and enhance employability.

Person specification

- Degree in biology/zoology/related subject

- Field, molecular and/or analytical skills preferred

References

* Armstrong, C Richardson DS, Spurgin LG (2018) Genomic associations with bill length and disease reveal drift and selection across island bird populations. Evolution Letters 2 (1), 22-36 * Gonzalez-Quevedo C, Davies RG Phillips KP, Spurgin LG and Richardson DS. (2016), Landscape-scale variation in an anthropogenic factor shapes immune gene variation within a wild population. Mol Ecol, 25: 4234-4246 * Spurgin LG, Illera JC, Jorgensen TH, Dawson DA, Richardson DS (2014) Genetic and phenotypic divergence in an island bird: isolation by distance, by colonization or by adaptation? Mol. Ecol. 23: 1028-1039. * Spurgin LG. & Richardson DS. (2010) How pathogens drive genetic diversity: MHC, mechanisms and misunderstandings, PRSB, 277, 979-988. * Spurgin LG, Wright DJ, Velde M, Collar NJ, Komdeur J, Burke T, Richardson DS (2014) Museum DNA reveals the demographic history of the endangered Seychelles warbler. Evolutionary Applications 7(9):1134-1143.

Key Information

* This project has been shortlisted for funding by the ARIES NERC Doctoral Training Partnership. Under-

taking a PhD with ARIES will involve attendance at training events. * ARIES is committed to equality & diversity, and inclusion of students of any and all backgrounds. All ARIES Universities have Athena Swan Bronze status as a minimum. * Applicants from quantitative disciplines who may have limited environmental science experience may be considered for an additional 3-month stipend to take appropriate advanced- level courses. * Usually only UK and EU nationals who have been resident in the UK for 3 years are eligible for a stipend. The closing date for

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NorthCarolinaStateU AgricultureEvolutionSociety

Please see our website

go.ncsu.edu/agbiofews

AgBioFEWS is a National Science Foundation funded graduate research training program offering PhD candidates across multidisciplinary fields of study the opportunity to examine the science, policy, and public engagement aspects and impacts of Agricultural Biotechnology on Food, Energy, and Water. Evolutionary Biology has a major role in this program to deal with pests and weeds that typically have rapidly evolved resistance to control measures.

Program Fellows receive a PhD in a natural/social science, or humanities graduate program, and a graduate minor in Genetic Engineering and Society, and will:

Embark on their studies embedded with NC farms, with later opportunities for international internships Collaborate on an interdisciplinary cohort project Take advanced interdisciplinary graduate courses and incorporate AgBioFEWS into thesis Receive $34,000 stipends

Fred Gould <fgould@ncsu.edu>

NorthernArizonaU TreePhylogeography

PhD position available in Landscape Genomics, Phylogeography and Climate adaptation of tree species @ NAU

The School of Forestry at Northern Arizona University (NAU) is seeking one highly motivated PhD student to join Dr. De La Torres lab of Genomics and Evolution of Forest Tree Species. The position includes a stipend, tuition waiver, and full health benefits for 4 years. Outstanding candidates may qualify for the NAU Presidential Fellowship Program (http://nau.edu/GradCol/-Financing/Presidential-Fellowship-Program/). The student will use genomic tools to study phylogeography, migration rates, and the potential to adaptation to climate change in southwestern conifer species. The research will include molecular lab work, greenhouse work, modelling and data analyses.

Qualifications:

- Master degree in Genetics, Evolutionary Biology, Bioinformatics, Forest Sciences, Biology, Plant Sciences, or related fields of study.

- Proficiency in R, Perl or Phyton (familiarity with Linux is a plus)

- Willingness to work with big data sets in a computer cluster.

- Strong statistical skills

- Experience with GIS

- Availability to start by July 1st, 2019 .

- Molecular lab experience is desirable.

- Skills in modeling with R are desirable.

How to apply: Please send a 1-page statement of interest, CV, unofficial copy of transcripts, GRE scores, and TOEFL scores (international students), and the names and contact information of 3 references by December 15th, 2018. If found to be a good match for the position, you will be encouraged to apply to the graduate program at NAU. Please note that NAU has the following admission requirements: GPA higher than 3.0 and TOEFL = 213 (computer-based) or 80 (internet-based).

Contact Information: Dr. De La Torre, Amanda.de-la-torre@nau.edu https://nau.edu/CEFNS/Forestry/-Faculty-and-Staff/Directory/De-La-Torre/ Northern Arizona University is a 29,000 student-institution with its main campus in Flagstaff, a four-season community of about 70,000 at the base of the majestic San Francisco Peaks. Flagstaff has all-year easy access to the Arizona snowbowl ski resort and is located at 1-hour drive from the Grand Canyon. School of Forestry- http://-nau.edu/forestry Amanda De La Torre <Amanda.de-la-Torre@nau.edu>

OhioStateU EvolutionOfMosquitoBloodfeeding

Position description: A graduate assistantship for a MS or PhD candidate is available starting Fall 2019 in the Entomology Department at the Ohio State University within the Meuti Laboratory. This position is likely to be funded through a competitive R21 grant from the National Institutes of Health. The project will use a comparative genomics approach to identify genes that are differentially expressed in biting and nonbiting populations of vector mosquito species, and thereby uncover mechanisms that might be selected during the evolution of non-bloodfeeding. The project is part of a collaborative research program with Georgetown University and the University of Oregon, and will entail collecting mosquitoes from the field, selecting for biting and nonbiting mosquitoes, and identifying the genetic differences between these to populations. Students will be encouraged to develop their own experiments, apply for additional funding, publish their results in high-impact journals and present their work at scientific conferences. This competitive assistantship will cover tuition, stipend, health insurance and travel to regional, national and international meetings.

Lab environment: The Meuti lab is located on the Columbus campus of The Ohio State University. The Meuti Lab is within the Entomology Department, one of the top entomology departments in the country, and is part of a Mosquito Working Group, with other leading experts. The department is close-knit, collegial and collaborative, and students in the lab have access to the all of the research equipment of a large, major research institution. Columbus is the 16th largest city in the USA and has many of the amenities of a large city (vibrant art and music scene, night life), but the city is still small enough to travel easily and the people are kind and helpful. The newly renovated lab space has designated areas for insect rearing, dissection and

microinjection, processing and extracting samples, and performing molecular and PCR-based work. Graduate and undergraduate students work closely together and receive excellent mentorship to prepare them for a variety of careers in public health, medicine, industry and academia.

Deadline for applications: Although this position is open until a suitable candidate is found, applicants are encouraged to submit all application materials to The Ohio State University Graduate School (http://-/gradadmissions.osu.edu) no later than December 1, 2018.

Qualifications: The successful candidate will have a bachelor's degree in the biological sciences or a related discipline. Previous research experience in molecular biology and/or ecophysiology is preferred.

Application materials: Interested candidates are encouraged to email Dr. Megan Meuti (meuti.1@osu.edu) to discuss the position in detail. Your email message should include a short statement of intent and career interests, contact information for three references, and a concise, current CV complete with:

(a) GPA,

(b) GRE scores and percentiles,

(c) degrees earned and relevant coursework,

(d) publications,

(e) research presentations,

(f) awards/scholarships/grants, and

(g) other relevant skills/qualifications.

Students from non-English speaking countries should also provide TOFEL scores.

Additional information: Please see the lab website (www.u.osu.edu/meutilab) to learn more about our group and ongoing projects.

Megan E. Meuti, PhD Assistant Professor College of Food, Agriculture and Environmental Sciences

Department of Entomology

E-mail: meuti.1@osu.edu

website: http://u.osu.edu/meutilab/ Office Phone: 614-688-2829

Physical address: Room 232C Howlett Hall

2001 Fyffe Rd.

Mailing address: Room 216 Kottman Hall

2021 Coffey Rd.

Columbus, OH 43210

"Nicol, Megan" <nicol.114@osu.edu>

PennStateU AncientDNAPaleomicrobiology

PhD Students sought to investigate the evolution of the human microbiome and its impact on modern human health using ancient DNA

We are looking for two PhD students to join a dynamic, cutting edge research team in palaeomicrobiology within the Department of Anthropology at the Pennsylvania State University. Selected students will investigate the evolution of the human microbiome using ancient microbial DNA obtained from calcified dental plaque (calculus) and Next Generation Sequencing technologies. This female led research team is actively investigating the evolution of the human microbiome to understand how long-term changes in the microbiome impact health and disease. Using ancient samples obtained from around the word that date back to 48,000 years ago across six continents, we are asking how microorganisms establish themselves in the human body, how diverse bacterial communities are formed under different selection regimes (i.e. changes in environment, diet, culture, and disease), and how non-bacterial microbes co-evolved with humans. In addition, we will explore microbiota in diverse living populations today to understand how past changes may influence modern health and explore environmental microbiota to see how human microbes may have unique adapted compared to those in the environment. Our research team is also analyzing microbial genome evolution in real-time, investigating the selection pressures that drive bacterial evolution in diversity microbial communities. To read more about this research, please see our past articles (Adler et al, 2013, Sequencing ancient calcified dental plaque shows changes in oral microbiota with dietary shifts of the Neolithic and Industrial revolutions. Nature Genetics 45:450-455 and Weyrich, et al, 2017. Neandertal behavior, diet, and disease inferred from ancient DNA in dental calculus. Nature. 544:357-361).

A background in molecular biology, microbiology, medicine, or molecular archaeology and previous research experience are preferred, although not required. Prospective students should demonstrate a desire to learn, work independently, multi-task, and self motivate. Full PhD stipends and tuition for successful applicants will be provided for up to five years. To apply for this

position, please register your interest as soon as possible by sending a cover letter and CV via email to lsw132@psu.edu before November 23, 2018. After initial review, strong applicants will be asked to apply through the PSU Graduate Student Applications portal before December 1, 2018.

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.

laura.weyrich@gmail.com

Portugal 7 Biodiversity

Dear Colleagues,

I would like to inform you about the call for applications for 7 PhD Holder positions at the Research Center in Biodiversity and Genetics Resources (CIBIO-InBIO), Vairao, Portugal, which will be open until December 05, 2018 and December 14, 2018.

If possible, I would greatly appreciate to be able to count on your collaboration in the dissemination of this opportunity amongst potential candidates.

Thank you very much!

All the best, CIBIO-InBIO's Science Communication and Outreach Office

CIBIO - Centro de Investigaçao em Biodiversidade e Recursos Genéticos/ InBIO Laboratório Associado, Universidade do Porto Campus Agrário de Vairao Rua Padre Armando Quintas 4485-661 Vairao Portugal

*** 7 PhD Holder positions References ICETA 2018-67 to ICETA 2018-79

International call for PhD Holder positions to pursue scientific research activities, under work contracts for a non-fixed term, pursuant to ARTICLE 23 OF DECREE-LAW NO. 57/2016 OF AUGUST 29th, AMENDED BY LAW 57/2017 AND REGULATORY DECREE No. 11-

A / 2017.

The application period will be from 14/11/2018 to 05/12/2018 and from 14/11/2018 to 14/12/2018 (IC-ETA 2018-68)

Details about the 7 open calls and applications submission available here < https://cibio.up.pt/open-positions-careers/details/7-phd-holder-positions >.

CIBIO-InBIO Divulgaçao

PurdueU EvolutionaryEcol

A PhD position is available in lab of Mark Christie at Purdue University. A position is available for highly-motivated candidates interested in rapid genetic adaptation, population genetics, and conservation in general. For more information about our research please visit: http://christielab.bio.purdue.edu Potential projects include: 1. Examining the rapid genetic adaptation of introduced fishes into the Great Lakes, 2. Identifying the genetic and evolutionary consequences of domestication, captive breeding, and supplementation of wild populations, and 3. Using existing and novel approaches to determine patterns of dispersal, gene flow, and local adaptation within a metapopulation context. These are the main research themes in our lab and, while research often focuses on fishes, graduate students are free to explore independent lines of inquiry in any system. Previous research experience with molecular techniques, computational work, statistics, bioinformatics, and assisting with the design and implementation of experiments will be highly regarded.

If you are interested in joining the lab, please contact me directly at christ99@purdue.edu with a CV and a brief description of your research interests and experience. Applications will be due December 7.

– Mark Christie Assistant Professor Purdue University   http://christielab.bio.purdue.edu/ christ99@purdue.edu

PurdueU RapidEvolution

A PhD position is available in lab of Mark Christie at Purdue University. A position is available for highly-motivated candidates interested in rapid genetic adaptation, population genetics, and conservation in general. For more information about our research please visit: http://christielab.bio.purdue.edu Potential projects include: 1. Examining the rapid genetic adaptation of introduced fishes into the Great Lakes, 2. Identifying the genetic and evolutionary consequences of domestication, captive breeding, and supplementation of wild populations, and 3. Using existing and novel approaches to determine patterns of dispersal, gene flow, and local adaptation within a metapopulation context. These are the main research themes in the Christie laboratory, and research often focuses on fishes, but graduate students are free to explore independent lines of inquiry in any system. Previous research experience with molecular techniques, computational work, statistics, bioinformatics, and assisting with the design and implementation of experiments will be highly regarded.

If you are interested in joining the lab, please contact me directly at markchristie1500@gmail.com with a CV and a brief description of your research interests and experience.

Mark Christie <christ99@purdue.edu>

QueenMaryU London EvolAnimalBehaviour

Interested in understanding the evolution of animal behaviour using computational ethology and robotics? Apply soon for a PhD in 2019! Multiple PhD studentships are available to study different species (bees, flies, chicks) using robots and artificial intelligence at the Comparative Cognition lab (Queen Mary University of London) and other research units in London:

- Apply by January 11th 2019 to the London Interdisciplinary Doctoral Programme http://lido-dtp.ac.uk/lido-apply.html Example project: chicken robots   http://project-directory.lido-dtp.ac.uk/-projects/chicken-robots-for-social-behaviour-from-basic-to-applied-research/ - Apply by 7th January 2019 to the London NERC doctoral training partnership https://london-nerc-dtp.org/apply-to-the-london-nerc-dtp/ Example project on bees with Elisabetta Versace and Lars Chittka https://london-nerc-dtp.org/2018/-09/05/bees-and-the-morse-code/ - Apply in November for an Alan Turing Phd at Queen Mary University https://www.turing.ac.uk/phd-turing-details   and work with chicks and the Advanced Robotics Center qt Queen Mary If you are interested in joining the Comparative Cognition lab, contact Elisabetta Versace e.versace@qmul.ac.uk

Elisabetta Versace, PhD Lecturer in Psychology Department of Biological and Experimental Psychology Queen Mary University of London Fogg Building, room 2.25 Email: e.versace@qmul.ac.uk Phone: + 44 (0) 2078828798

Twitter: @so_evolutionary

e.versace@qmul.ac.uk

QueenMaryU London EvolutionAnimalBehaviour

Interested in understanding the evolution of animal behaviour using computational ethology and robotics? Apply soon for a PhD in 2019! Multiple PhD studentships are available to study different species (bees, flies, chicks) using robots and artificial intelligence at the Comparative Cognition lab (Queen Mary University of London) and other research units in London:

- Apply by January 11th 2019 to the London Interdisciplinary Doctoral Programme http://lido-dtp.ac.uk/lido-apply.html Example project: chicken robots   http://project-directory.lido-dtp.ac.uk/-projects/chicken-robots-for-social-behaviour-from-basic-to-applied-research/ - Apply by 7th January 2019 to the London NERC doctoral training partnership https://london-nerc-dtp.org/apply-to-the-london-nerc-dtp/ Example project on bees with Elisabetta Versace and Lars Chittka https://london-nerc-dtp.org/2018/-09/05/bees-and-the-morse-code/ - Apply in November for an Alan Turing Phd at Queen Mary University https://www.turing.ac.uk/phd-turing-details   and work with chicks and the Advanced Robotics Center qt Queen Mary If you are interested in joining the Comparative Cognition lab, contact Elisabetta Versace e.versace@qmul.ac.uk

Elisabetta Versace <e.versace@qmul.ac.uk>

StonyBrookU EvolutionaryBiol

GRADUATE OPPORTUNITIES IN ECOLOGY AND EVOLUTIONARY BIOLOGY

The Graduate Program in Ecology and Evolution at Stony Brook University is recruiting doctoral and master's level graduate students for Fall 2019.

The department has a long and distinguished history, being one of the first of its kind. It currently has a productive and diverse faculty working on broad array of questions involving microbes, plants, vertebrate and invertebrate animals and whole ecosystems. Field locales span the globe from the old and new world tropics to the Arctic and Antarctic polar regions, as well as the uplands, wetlands and coastal areas of Long Island and nearby New York City.

Upon admission, PhD students are guaranteed teaching assistantships upon acceptance, with additional support available through fellowships and research assistantships, as they become available. The deadlines for applications are *Dec. 1, 2018* for the PhD program. Admissions to the MA program are rolling until *April 15, 2019. *

Below is a listing of current local program faculty to whom questions can be directed. It is highly recommended that PhD applicants contact potential advisors before submitting your application. For questions or assistance with the application process please e-mail our Graduate Program coordinator, Melissa Cohen. melissa.j.cohen@stonybrook.edu

DEPARTMENTAL FACULTY

H. Resit Akcakaya - Population and conservation ecology http://life.bio.sunysb.edu/ee/akcakayalab/ Stephen B. Baines - Aquatic ecosystem ecology and biogeochemistry http://life.bio.sunysb.edu/ee/baineslab/ Michael A. Bell - Contemporary evolution and biology of fishes http://life.bio.sunysb.edu/ee/belllab/ Liliana M. Dávalos - Vertebrate phylogenetics, biogeography and conservation http://lmdavalos.net/lab/The_Lab.html Walter F. Eanes - Evolutionary genetics of Drosophila http://life.bio.sunysb.edu/ee/eaneslab/ Jessica Gurevitch - Research synthesis, plant population and invasion ecology https://gurevitchlab.weebly.com/ Jesse D. Hollister - Plant evolutionary genomics and epigenetics https://genomeevolution.wordpress.com/ Jeffrey S. Levinton - Marine ecology and paleobiology http:/-/life.bio.sunysb.edu/marinebio/levinton.main.html Heather J. Lynch - Quantitative ecology and conservation biology https://lynchlab.com/ Ross H. Nehm - Science education, evolution education, cognition https://www.stonybrook.edu/commcms-/ecoevo/people/faculty_pages/nehm.html Dianna K. Padilla - Marine and freshwater ecology, conservation and invasion biology http://life.bio.sunysb.edu/ee/-padillalab/ Joshua Rest - Evolutionary genomics http://life.bio.sunysb.edu/ee/restlab/Home.html Robert W. Thacker- Systematics, phylogenetics, and ecology https://www.stonybrook.edu/commcms-/ecoevo/people/faculty_pages/thacker.html John R. True - Evolutionary developmental biology https://www.stonybrook.edu/commcms/ecoevo/-people/faculty_pages/true.html Krishna R. Veeramah - Evolutionary Genomics and Paleogenomics http:/-/life.bio.sunysb.edu/ee/veeramahlab/ PROGRAM FACULTY IN OTHER DEPARTMENTS

Jackie Collier - Microbial ecology https://-you.stonybrook.edu/collierlab/ Nolwenn M. Dheilly - Evolution of Host-Parasite Interactions https://-you.stonybrook.edu/dheilly/ Andreas Koenig - Behavioral ecology of primates https://sites.google.com/a/-stonybrook.edu/idpas_faculty_profile_koenig/ David Q. Matus - Evolution of Cell Invasion https://-you.stonybrook.edu/matuslab/ Catherine Markham - Behavioral ecology https://catherinemarkham.com/ Janet Nye - Quantitative Fisheries Ecology https:/-/you.stonybrook.edu/jnye/ Alistair Rogers - Plant Physiology and Climate Change

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Taipei Taiwan 9 Biodiversity

9 PhD positions in Ecology and Evolution available

TIGP-BIODIV PROGRAM, ACADEMIA SINICA, TAIPEI, TAIWAN, APPLICATION FOR 2019

The Taiwan International Graduate Program Biodiversity Program (TIGP-BIODIV) is now recruiting graduate students for Fall 2019.

THE APPLICATIONS ARE DUE BEFORE JANUARY 31, 2019.

PLEASE APPLY ONLINE AT TIGP APPLICATION SYSTEM [1] (HTTPS://TIGP.APPS.SINICA.EDU.TW/INDEX.PHP)

TIGP-BIODIV is composed of >40 faculty from Academia Sinica and National Taiwan Normal University whose research spans diverse topics across ecology, biogeography, evolutionary genetics and genomics, marine biology, and systematics. In addition to modern lab facilities, researchers have access to a marine research station at Green Island, the Biodiversity Research Museum, and a next generation genomics core facility.

Potential students are encouraged to explore the research underway at TIGP- BIODIV and contact individual faculty mentors about opportunities in their group, see Faculty List [2]

Successful applicants receive graduate fellowships for at least 3 years, if program requirements are met. During the first year in the program, graduate students can choose rotations among all TIGP-BIODIV laboratories. All courses are offered in English. For additional details, please visit ADMISSION [3]

Both Academia Sinica and National Taiwan Normal University are located in Taipei, Taiwan. Taipei is a vibrant, global city, rich in cultural and near to both oceans and mountains for both research and pleasure.

For all enquiries, please contact:

PROGRAM OFFICE

Email: tigpbiodiv@gate.sinica.edu.tw

TIGP BIODIVERSITY Program

Biodiversity Research Center, Academia Sinica

TIGP BIODIVERSITY Program

Biodiversity Research Center

Academia Sinica

Tel: +886-2-2787-2234

Email: tigpbiodiv@gate.sinica.edu.tw

Links:

[1] https://tigp.apps.sinica.edu.tw/index.php [2] http://nas2.biodiv.tw/TIGP-biodiv/index.php/-faculty/ [3] http://nas2.biodiv.tw/TIGP-biodiv/index.php/admission/ Chung-Ping Lin <treehopper@ntnu.edu.tw>

Taiwan 2 DamselflySpeciation

2 PhD Positions in Damselfly Speciation and Aposematic Weevils, TIGP-BIODIV & NTNU, Taipei, Taiwan, 2019

The Systematics & Evolutionary Biology Lab in the National Taiwan Normal University (NTNU) is seeking two self-motivated and enthusiastic PhD students to study the speciation of damselflies and aposematism of weevils begin in the Summer of 2019.

1. Damselfly Speciation

We focus on a damselfly species, Psolodesmus mandarinus, with two subspecies differ in their wing pigmentations, behaviour and distribution in Taiwan, providing a great opportunity to evaluate the relative importance of natural and sexual selection in divergence and speciation. We are incorporating a wide range of techniques, including a whole-island field survey, behavioural observation, manipulation experiments, population genetics, and genomic analysis to investigate the mechanisms driving the divergence of these damselflies.

A short description of research projects:

https://sites.google.com/site/yuhsunhsu/research?pli=-1 2. Insect Aposematism

Pachyrhynchus weevils are a group of brilliant, metallic-coloured weevils distributed in the Old World tropics. Recent studies showed that the conspicuous colouration of these weevils function as effective warning signals to prevent predacious pursuit by lizards. The hardness of the weevils provides the efficient secondary defense against predation. We are now interested in studying the multiple functions of the colour and the spatio-temporal dynamics of the interactions between vertebrate predators and aposematic prey.

Related articles:

Wang, L-Y., H. Rajabi, N. Ghoroubi, C-P. Lin and S. N. Gorb (2018) Biomechanical strategies underlying the robust body armour of an aposematic weevil. Frontiers in Physiology 9: 1410

Wang, L-Y., W-S. Huang, H-C. Tang, L-C. Huang and C-P. Lin (2018) Too hard to swallow: A secret secondary defence of an aposematic insect. Journal of Experimental Biology 221

Tseng, H-Y., W-S. Huang, M-L. Jeng, R.J.T. Villanueva,

O.M. NuÃÂ±eza and C-P. Lin (2017) Complex inter-island colonization and peripatric founder speciation promote diversification of flightless Pachyrhynchus weevils in the Taiwan-Luzon volcanic belt.

Journal of Biogeography (early view) (DOI: 10.1111/jbi.13110)

Chen, Y-T., H-Y. Tseng, M-L. Jeng, Y-C. Su, W-S. Huang and C-P. Lin (2017) Integrated species delimitation and conservation implications of an endangered weevil Pachyrhynchus sonani (Coleoptera: Curculionidae) in Green and Orchid Islands of Taiwan. Systematic Entomology 42: 796'813 (DOI: 10.1111/syen.12242)

Tseng, H-Y., C-P. Lin, J-Y Hsu, D.A. Pike and W-S. Huang (2014) The functional significance of aposematic signals: geographic variation in the responses of widespread lizard predators to colourful invertebrate prey. PLoS ONE 9(3):e91777

PhD positions: 2

Research project - The PhD students will be encouraged to, but not limited to, study the speciation mechanisms between the two subspecies of Psolodesmus damselflies and the topics related to Pachyrhynchus's aposematism. The students will be expected to develop their own research dissertation projects within the scope of these research projects.

Funding ' The PhD fellowship includes a competitive monthly stipend of NT$34,000 (~1,133 USD) for up to 3 years through the TIGP (Taiwan International Graduate Program ' Biodiversity), a jointed graduate program between NTNU and Academia Sinica in Taipei, Taiwan. Students are also eligible for on-campus housing during the years of their studies.

Eligibility - The position is open to all applicants that meet TIGP admission criteria, but preference will be given to students with a master degree or prior experiences in animal behaviour, population genetics, and insect ecology and evolution. Criteria/material used to evaluate the applicant's qualifications for the admission: (

http://biodiv.sinica.edu.tw/TIGP-BP/-index.php?pageÂ'mission)

How to apply ' perspective students should prepare (1) a CV, (2) a list of prior experience, (3) three references (contact info & emails), (4) a one-page statement of research interests, and (5) a two-page research proposal based on damselfly speciation or weevil's aposematism in one PDF file, and email the file to Chung-Ping Lin (treehopper@ntnu.edu.tw) with the subject line "TIGP-BIODIV application 2019".

Additionally, perspective students should submit a for-

mal online application for admission in TIGP Biodiversity (https://tigp.apps.sinica.edu.tw/index.php). Deadline for applications through the online portal is January 31st 2019.

Web pages:

The Systematics & Evolutionary Biology Lab

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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

TexasAMU PlantSystematics

Graduate Positions at Texas A&M-Corpus Christi Plant Systematics Biogeography Ecology

PhD and MS graduate positions in Plant Systematics, Biogeography and Conservation

There are multiple PhD and MS graduate positions available in the Daru Lab (https://barnabasdaru.com) at Texas A&M University-Corpus Christ (TAMUCC) beginning Fall 2019. Research in the Daru Lab focuses on biogeography, systematics, ecology and conservation in the context of two key questions: 1) What are the mechanistic processes by which biodiversity has evolved, is currently distributed and will be maintained? 2) How can we set meaningful conservation priorities to safeguard their future?

Students with interest in the following areas are strongly encouraged to apply:

- Biogeography - Plant systematics - Phylogenetic spatial diversity - Conservation biology - Community ecology - Population genetics and genomics - Species distribution modeling - Bioinformatics - Impacts of global change on biological communities e.g. invasives, extinctions, etc.

The successful students will have access to the facilities and collections at the Ruth O'Brien Herbarium which contain comprehensive records of the regional flora of the Texas coastal bend. The herbarium has a good collection of marine vascular plants of the Gulf Coast of Texas, Mexico and the Caribbean, including seagrasses, marsh plants and mangroves. The successful applicants will also have access to the High Performance Research Computing, that provides scalable high performance computing clusters for researchers, faculty, students, and affiliates of TAMUCC.

The geographic region of Texas comprises major ecological and biological diversity, with sharp environmental gradients in precipitation, elevation, and temperature. The region has tremendous diversity with up 3500 native vascular plant species, constituting 30% of all native species in North America north of Mexico. Plant species relegated to the Texas Coastal Bend, Trans-Pecos or the eastern forest regions are in close juxtaposition to one another making this region an ideal laboratory to examine plant diversity and ecotypes.

Interested applicants should contact Dr. Barnabas Daru (barnabas.daru@tamucc.edu) with a description of research interest and a CV/resume.

Applicants are encouraged to apply prior to December 21, 2018 and review of applications will begin January 19, 2019. The positions will remain open until finalists are selected.

The Department of Life Sciences has several opportunities for fellowships, research and teaching assistantships within the College of Science and Engineering as well as programs in Marine Biology (http://sci.tamucc.edu/LSCI/MARB/) and M.S. Biology (https://sci.tamucc.edu/LSCI/BIOL/ms/index.html).

TAMU-CC is an Hispanic-serving institution located on the Texas Gulf Coast and a rapidly growing doctoral research university with about 12,000 students.

Barnabas Daru (PhD) Assistant Professor of Biology Department of Life Sciences Texas A&M University - Corpus Christi Phone: +1 857 218 0117 Email: Barnabas.Daru@tamucc.edu Lab Website: https://barnabasdaru.com Barnabas Daru <darunabas@gmail.com>

TexasAMU PlantSystematicsBiogeography

PhD and MS graduate positions in Plant Systematics and Biogeography

Multiple PhD and MS graduate student positions are available in the Spalink Lab at Texas A&M University (https://spalinklab.tamu.edu) beginning Fall 2019. Lab research concentrates on the intersection of evolution, ecology, and geography using phylogenetic tools, with an emphasis on modeling how time, space, and form function in the diversification and maintenance of life. The lab's ultimate goal is to merge our understanding of the evolutionary history of lineages with observed patterns of biodiversity within and across landscapes. In observing diversity around the world in the context of global change, we ask: What is here? Why is it here? Where is it going? Projects in the Spalink Lab range from analyzing the dynamics of genetic diversity within species to the phylogenetics of entire orders, and from regional patterns of community assembly to the global structure of phylogenetic, functional, and morphological diversity. Students with interests in a wide variety of taxonomic groups and geographic localities are welcomed to apply.

Students with interests or skills in phylogenetics and any of the following topics are encouraged to apply:

Â Plant systematics Â Biogeography Â Community or spatial ecology Â Community assembly Â Population genetics Â Species distribution modeling Â Evolutionary morphometrics Â Spatial phylogenetics Â Bioinformatics Â Conservation biology Â Genomics and genome evolution Â Impacts of global change on species and communities

Graduate students in the Spalink lab have full access to the S.M. Tracy Herbarium, a vibrant and rapidly expanding collection of over 350,000 specimens. Resources for learning or improving bioinformatics skills abound at Texas A&M University. The university has multiple core genomics facilities, high-throughput and high-performance computer clusters, growth chambers, greenhouses, and field research sites throughout Texas. Students in the Spalink Lab can opt for degrees in Ecosystem Science and Management (https://essm.tamu.edu), Dr. Spalink's home department, or the cross-departmental EEB program (https://eeb.tamu.edu), of which he is also a core faculty member.

Texas is a fantastic location for botanists. With over 5600 species, Texas is the second most diverse state in the U.S. With a strong longitudinal precipitation and elevation gradient, latitudinal temperature gradient, dynamic volcanic history, exposed bedrock dating back a billion years, and an extensive coastline, Texas has tremendous edaphic and climatic heterogeneity. This results in everything from extremely arid deserts to wet conifer forests, and from montane prairies to coastal plains, all converging in Texas.

Interested applicants should contact Dr. Daniel Spalink (dspalink@tamu.edu) and provide a description of your research interests and a CV/resume. We strongly recommend applying by December 15 to ensure full consideration for departmental and college fellowship opportunities. The Department of Ecosystem Sciences and Management, EEB, and the College of Agriculture and Life Sciences have many opportunities for fellowships, research assistantships, and teaching

assistantships. Details regarding the application process can be found at https://essm.tamu.edu/academics/-graduate/prospective/application/ (ESSM) and at https://eeb.tamu.edu/graduate-program/prospective-students-2/ (EEB).

We especially encourage applications from members of any social group that has traditionally been, or continues to be, underrepresented in STEM.

"Spalink, Daniel" <dspalink@exchange.tamu.edu>

TexasTechU EcologicalGenomics

The Olson Ecological Genomics lab at Texas Tech University is currently seeking motivated students wishing to pursue PhD degrees to join our lab. Our current focus is to map sex chromosomes throughout the Salicaceae (poplars and willows) to understand the processes leading to sex chromosomes and the genomic and population genetic patterns of nucleotide variation in sex chromosomes. We are currently collecting large sequence capture data set and assembling novel genomes to achieve these goals. The lab also has interests in the genomics of species invasions, hybrid speciation, and local adaptation. PhD students are expected to develop their own projects within the framework of general lab interests. We work together as a team and use a variety of field, greenhouse, molecular, and bioinformatic analyses to address questions that interest us. The Biological Sciences Department offers a strong and collaborative training environment in bioinformatics, statistics, plant biology, and evolutionary genomics. To find out more about the lab, please visit https:-/mattolson38.wixsite.com/olsonlab and contact Matt Olson <matt.olson@ttu.edu>. The deadline for graduate applications to the Biological Sciences Department at Texas Tech is 15 January 2018.

"Olson, Matt" <Matt.Olson@ttu.edu>

TexasTechU MicrobialMetagenomics

WHERE: Texas Tech University WHAT: We have positions for students interested in doing a PhD in the field of metagenomics of microbiomes with medical and

agricultural relevance in the Department of Biological Sciences at Texas Tech University in Dr. Brown's lab (see https://www.depts.ttu.edu/biology/people/-Faculty/Brown/ http://www.amvbrown.com). Our lab will provide cutting-edge training in important areas of biological research using many omics tools and bioinformatics to investigate how microbes interact with each other and their hosts in ways that limit or facilitate species invasions, disease outbreaks, or biomass production. Students interested in this exciting PhD program would begin in fall of 2019, but should apply as early as possible. We seek applicants who are (1) committed to achieving scholarly excellence, (2) ambitious and passionate about deep questions in biology, (3) conscientious learners and communicators wishing to be involved in dynamic and diverse research.

Interested students with strong grades are encouraged to contact Dr. Brown soon to discuss applying for external fellowships, depending on eligibility, otherwise, as a PhD student in the Department of Biological Sciences (http://www.depts.ttu.edu/biology), funding may include Teaching Assistantships, or Research Assistantships, depending on availability. Texas Tech is a strong, diverse, research university recently classified as tier 1. It is located close to hubs for research in agriculture, medicine, and genomics. We welcome applicants of all backgrounds, without discrimination on the basis of an applicants race, ethnicity, color, religion, sex, sexual orientation, gender identity, national origin, age, disability, genetic information or status as a protected veteran.

To apply, first notify Dr. Brown of your interest as soon as possible at amanda.mv.brown@ttu.edu. After initial contact, you may be asked to provide: a resume or CV, a short statement describing your skills, knowledge, and goals, contact information for 2-3 academic references, and GPA and/or GRE and/or TOEFL scores, as appropriate. You will then also need to fulfill application requirements for graduate studies (see http://www.depts.ttu.edu/gradschool/Programs/-GraduatePrograms.php).

– Dr. Amanda M.V. Brown Assistant Professor Department of Biological Sciences, Texas Tech University Biological Sciences Box 43131, Lubbock, TX 79409 Work Ph: 806-834-0984

Amanda Brown <amanda.mv.brown@ttu.edu>

Toulouse InfectiousDiseaseModelling

Dear EvolDir list members, Please find below (and attached) details of a PhD opportunity in infectious disease modelling in France. Regards, Tim

PhD in infectious disease modelling _*/Modelling and real-time decision-making: application to the spread of highly pathogenic avian influenza (H5N8) virus in France (2016-2017)/*_ *_ _Background and objectives* Limiting emerging infectious disease impact requires taking quick decisions relating to surveillance and control strategies. This task, however, is complicated by the uncertainties that surround the course of disease epidemics. Mathematical modelling is an extremely powerful tool that can be used to overcome this problem, but is still overlooked in the context of emerging animal diseases. During the winter of 2016-2017, Europe experienced an unprecedented epidemic of highly pathogenic avian influenza (HPAI) H5N8 that had severe socio-economic consequences for the poultry sector. France was the most severely affected country with regards to the number of outbreaks reported in the domestic poultry sector. Managing sanitary crises linked to avian influenza virus circulation is currently one of the major challenges to the long term security of the European poultry sector. The aim of the PhD is to assess how mathematical models can be used in real time to define adapted surveillance and intervention strategies in the situation of an animal disease emergence. To reach this objective, epidemiological data linked to the French HPAI H5N8 epidemic will be used to calibrate a mathematical model of HPAI spread in France. This model will incorporate the spatio-temporal dynamics of the farm contact network, as well as their geographical proximity. The model and its outputs will be integrated into a web-based application to maximise their uptake by policy makers and local stakeholders.

Qualifications The suitable candidate would ideally be a biologist, such as an ecologist, veterinarian, or agronomist, with a master of science in epidemiology or ecology and proven quantitative analytical skills, or a masters' degree in mathematics or statistics. A strong interest in programming (R, C++ or Python) as well as good English communication skills would be highly advantageous. An enthusiasm for infectious diseases, animal health and interdisciplinary work is desirable. Proficiency in French is not necessarily required *_ _**_

_Institutional arrangements* /_Hosting structure_/: the selected candidate will join the EPIDEC team (epidemiology and economics of animal health) of the mixed research unit ENVT-INRA 1225 ≪ —Host-Pathogen Interactions — ≫, located on the campus of the National Veterinary School of Toulouse, France. He or she will benefit from the stimulating environment of an interdisciplinary research unit whose interests are located at the interface between epidemiology, immunology and microbiology. The selected candidate will also benefit from the national and international collaboration network that the EPIDEC team has developed on the transmission of infectious diseases. /_Supervision_/: Dr. Mathilde Paul (main supervisor) and Dr. Timothée Vergne (co-supervisor) /_Research project_/: The PhD project is part of the research project "AI-TRACK" that received funding from the Occitanie region and the Regional Development European Fund (FEDER). The project aims at understanding the transmission processes of avian influenza in the French poultry sector, and at the interface between wildlife and domestic poultry, in order to optimise surveillance and intervention strategies. /_Expected dates_/: January 2019 ' December 2022

To apply Send a CV and cover letter with the contact details of two references to Mathilde Paul (m.paul@envt.fr) and Timothée Vergne (t.vergne@envt.fr). Application deadline: *12th December 2018*.

Associated references Delpont, M., Blondel, V., Robertet, L., Duret, H., Guerin, J.-L., Vaillancourt, J.-P., Paul, M.C., 2018. Biosecurity practices on foie gras duck farms, Southwest France. Prev. Vet. Med. 158, 78'88. Guinat, C., Nicolas, G., Vergne, T., Bronner, A., Durand, B., Courcoul, A., Gilbert, M., Guérin, J.-L., Paul, M.C., 2018. Spatio-temporal patterns of highly pathogenic avian influenza virus subtype H5N8 spread, France, 2016 to 2017. Euro Surveill 23. Probert, W.J.M., Jewell, C.P., Werkman, M., Fonnesbeck, C.J., Goto, Y., Runge, M.C., Sekiguchi, S., Shea, K., Keeling, M.J., Ferrari, M.J., Tildesley, M.J., 2018. Real-time decision-making during emergency disease outbreaks. PLOS Computational Biology 14, e1006202. Vergne, T., Fournié, G., Markovich, M.P., Ypma, R.J.F., Katz, R., Shkoda, I., Lublin, A., Perk, S., Pfeiffer, D.U., 2016. Transmission tree of the highly pathogenic avian influenza (H5N1) epidemic in Israel, 2015. Vet. Res. 47, 109.

– Timothée Vergne Lecturer of Veterinary Public Health

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

TrentU Ontario
FlyingSquirrelAdaptiveGenomics

Graduate Students in Flying Squirrel Adaptive Genomics

A collaborative research program on inter- and intra-specific characterization of adaptive genes to assess adaptive potential under changing environmental and climate models, disease-spectra, and introgression is seeking PhD students with strong quantitative skills. This project is a partnership between academic and provincial government agencies and builds on a multi-year dataset. Students with interest or experience in conservation genomics, molecular ecology, landscape ecology/genetics and/or bioinformatics will be considered. Specific projects range from assessing the adaptive differences and hybridization between northern and southern flying squirrels, to characterizing the spatial genetic structure and environmental variables influencing populations within these species. Projects will build on neutral genetic markers and existing transcriptome and whole genomes to expand into genome-wide surveys of single nucleotide polymorphisms (SNPs) analyses, functional genes and mitogenomics for larger-scale population genomic profiling. Applicants should submit a CV, a statement of research interests, and the names and contact information for three references.

Please submit applications to:

Dr. Paul J. Wilson Professor of Forensic Science and Conservation Genomics, Biology Department Trent University DNA Building 2140 East Bank Drive Peterborough, ON, K9L 0G2 pawilson@trentu.ca Website: http://wilsoncrcresearch.ca/ or

Dr. Jeff Bowman Research Scientist Wildlife Research & Monitoring Section Ontario Ministry of Natural Resources & Forestry Trent University DNA Building 2140 East Bank Drive Peterborough, ON, K9L 0G2 jeff.bowman@ontario.ca http://people.trentu.ca/-jebowman

UAlabama Birmingham
AlgalSexEvolution

The Krueger-Hadfield Evolutionary Ecology Lab is searching for graduate students to join the lab in Fall 2019.

The Krueger-Hadfield lab at the University of Alabama at Birmingham is anticipating recruiting a M.S. and a Ph.D. student for Fall 2019. We use natural history, manipulative field and laboratory experiments, and population genetics and genomics in algae and invertebrates in order to test hypotheses centered on the evolutionary maintenance of sex. You can learn more about the Krueger-Hadfield lab at https://www.quooddy.com The M.S. project, recently funded by the Binational Science Foundation, will focus on the mating system dynamics of two seaweeds, one native and one non-native to the Levantine region of the Mediterranean. The Ph.D. project will investigate mating system and life cycle variation along a latitudinal gradient in the western Atlantic.

UAB is located in the heart of Birmingham. We have a vibrant and diverse biology faculty, including a cohort of marine biologists, and three phycologists. Information on the biology department graduate program is at https://www.uab.edu/cas/biology/graduate. Potential applicants should pay particular attention to the admission requirements (https://www.uab.edu/cas/biology/-graduate/admissions).

If you are interested, please send an email to Dr. Stacy Krueger-Hadfield (sakh@uab.edu) including the following: 1) a statement of research interests andhow those interests fit into the Krueger-Hadfield lab, 2) your CV, and 3) your GPA and GRE scores.

Stacy A. Krueger-Hadfield, PhD

Assistant Professor | Department of Biology

The University of Alabama at Birmingham | Campbell Hall 464

1300 University Blvd | Birmingham, AL 35294

Phone: 205.934.6034 | sakh@uab.edu | @quooddy | www.quooddy.com XX

Ray Lankester Investigator | Marine Biological Association of the United Kingdom

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Norma J. Lang Early Career Fellow | Phycological Society of America

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Selected publications:

Ploidy differences may lead to diploid dominance < https://onlinelibrary.wiley.com/doi/abs/10.1111/jpy.12746 > Journal of Phycology

Niche-shift and < http://onlinelibrary.wiley.com/doi/10.1111/eva.12592/abstract > population < http://onlinelibrary.wiley.com/doi/10.1111/eva.12592/abstract > genetics predict rapid evolution < http://onlinelibrary.wiley.com/doi/10.1111/eva.12592/abstract > Evolutionary Applications 2018

Source and vector of a prolific invader < http://onlinelibrary.wiley.com/doi/10.1002/ece3.3001/abstract > Ecology and Evolution 2017

The cryptic species problem < https://www.schweizerbart.de/papers/pip/detail/prepub/87244/Asexuality_and_the_cryptic_species_problem > Perspectives in Phycology 2017

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The Molecular Ecologist < http://www.molecularecologist.com/ >

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Seaweeds, Science and SciComm: #MySciComm < https://advancingecocomm.wordpress.com/2017/07/19/myscicomm-stacy-krueger-hadfield-on-seaweeds-science-and-scicomm/ >

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Journal of Phycology < http://www.psaalgae.org/ >, Associate editor and Editorial Board member

Cryptogamie Algologie < http://www.bioone.org/loi/crya >, Associate editor

Marine Biodiversity Records < https://mbr.biomedcentral.com/ >, Associate editor

Marine Biology < https://link.springer.com/journal/227 >, Associate Editor

"Krueger-Hadfield, Stacy A" <sakh@uab.edu>

UAlabama Huntsville EvolBiol

The Culumber Lab of Evolutionary Biology at the University of Alabama in Huntsville is currently seeking students interested in pursuing an MSc or PhD to join our laboratory. We are particularly interested in motivated students with an interest in integrating ecology, behavior, and physiology to address fundamental questions in evolutionary biology.

Potential projects include: (1) Examining the role of temperature in speciation and the maintenance of adaptive genetic variation, (2) the evolutionary consequences of indirect genetic effects, and (3) the underlying mechanisms and role of animal personality in biological diversification. Research in the laboratory focuses primarily on livebearing fishes as a model to understand broader evolutionary phenomena. However, highly-motivated students with interests in exploring other lines of research on evolutionary biology in any study system are encouraged to apply. Prior experience working with fish is not necessary, but prior research experience (either undergraduate or MSc) is highly preferred. The ideal candidate will have research experience with one or more of the following areas: molecular biology (DNA/RNA isolation, PCR, sequencing), bioinformatics, geographical information systems (GIS), animal behavior, or animal physiology.

Student support includes teaching assistantships, internal scholarships, and fellowships (internal and extramural).

If you are interested in joining the lab, please contact me at zachary.culumber@uah.edu and include a cover letter describing your research experience and interests, as well as a CV. Priority will be given to applications received by December 20th.

– Zachary Culumber, PhD Assistant Professor Department of Biological Sciences University of Alabama in Huntsville

zachary.culumber@uah.edu

UAlbany UMaine DiseaseEcolEvolution

Ph.D. Positions in Wildlife Disease Ecology and Evolution

Two graduate student positions are available as part of an NSF-funded project on the evolution and transmission of Bacillus anthracis, the causative agent of anthrax, in two endemic systems in southern Africa. The project is a collaboration between Wendy Turner at the University at Albany (www.wendyturner.org),

Pauline Kamath at the University of Maine (https://-kamathlab.weebly.com/), and Henriette van Heerden at the University of Pretoria (www.up.ac.za/veterinary-tropical-diseases/article/1945572/h-van-heerden).

Project Background: Anthrax is a globally distributed disease of wildlife, livestock, and humans that can vary in its ecology and epidemiology among geographic areas. These differences in how and when outbreaks occur has served as a stumbling block, limiting understanding of this disease and the ability to predict, and hence respond to, outbreaks in animals and humans. This project will compare two areas in southern Africa that have very different anthrax outbreak dynamics: Etosha National Park, Namibia, where smaller outbreaks occur annually in grazing herbivores in wet seasons, and Kruger National Park, South Africa, where larger outbreaks occur on roughly a decadal scale in browsing herbivores in dry seasons. This collaborative project will consider the roles of host, pathogen, and environment in contributing to the differences in the patterns of anthrax occurrence observed between the two study areas, which are representative of the differences seen among anthrax systems world-wide. The collaborative project team is studying pathogen landscape genomics over decades in each system, host immunogenetics and ecoimmunology, host movement and foraging ecology, population density, and environment, host and pathogen influences on outbreak dynamics.

1. Ph.D. position: Theoretical/Quantitative Disease Ecology The Turner lab (www.wendyturner.org) at the University at Albany, SUNY seeks a highly motivated Ph.D. student in theoretical or quantitative disease ecology, to start Fall (or Spring) 2019. This Ph.D. project will study ecological and evolutionary interactions between Bacillus anthracis and its herbivorous hosts, contrasting two ecosystems varying in anthrax outbreak dynamics, Etosha National Park, Namibia and Kruger National Park, South Africa. Competitive applicants will have previous research experience, a strong quantitative background with the skills to confront models with data (programing, statistical modeling, and/or theoretical modeling), an interest in conducting fieldwork on charismatic megafauna in African savannas, and the ability to work independently and as part of a diverse team. Interested applicants should contact Dr. Wendy Turner (wcturner@albany.edu). Applications must be submitted through UAlbanys Biology department (https://www.albany.edu/biology/graduate/-phd-biology-eeb.shtml); the application deadline for fall admission is January 15th.

2. Ph.D. Position: Wildlife Population Genomics A Ph.D. position is available in the Kamath Lab (https://-kamathlab.weebly.com/) at the University of Maine,

Orono, starting in the Spring or Fall 2019. The graduate research project will focus on host-pathogen evolutionary dynamics and the genetic basis for heterogeneity in susceptibility to B. anthracis in ungulate hosts of Etosha National Park, Namibia, and Kruger National Park, South Africa. Preferred qualifications include previous research experience in population genomic approaches, field skills, and a demonstrated ability to work both independently and in a team. Interested qualified applicants should send a cover letter, current CV, unofficial transcripts, a publication or writing sample, and the names and contact information for three references to Pauline Kamath at pauline.kamath@maine.edu. The cover letter should describe interest in the project and in graduate study, relevant coursework, research experience, and other qualifications. All applications received before December 15th will receive full consideration, and applications will be accepted on a rolling basis until the position is filled.

Both the University at Albany and the University of Maine are EEO/AA employers. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, sexual orientation, age, disability, protected veteran status, or any other characteristic protected by law.

– Pauline L. Kamath, Ph.D. Assistant Professor of Animal Health Animal and Veterinary Sciences School of Food & Agriculture 5735 Hitchner Hall, Rm 342 University of Maine

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UArizona AdaptationGenomics

Graduate student opportunities in the evolutionary genomics of adaptation and speciation at the University of Arizona

The Matzkin Lab (www.matzkinlab.org) at the University of Arizona, Department of Entomology is currently recruiting graduate students (PhD and MS) to join our diverse lab. Our lab has several themes focusing mostly on the exciting cactophilic Drosophila system.

Among the ongoing projects are: - Genomic evolution across cactophilic Drosophila. - Quantitative genet-

ics of behavioral strategies, life history characteristics, morphology associated with local ecological adaptation - Ecological genomics of adaptation in cactophilic Drosophila (cactus host chemistry, nutrition, desiccation, thermal stress, aestivation, etc.) - Evolutionary genomics of plasticity and transgenerational effects - Genomics of speciation and the evolution of reproductive incompatibilities

The fact that we are located in the Sonoran Desert also facilitates field focused projects. If you are interested in these or other related topics please contact Luciano Matzkin (lmatzkin@email.arizona.edu). Graduate students can apply via the Entomology and Insect Science (EIS) Graduate Program (https://insects.arizona.edu/) or the Ecology and Evolutionary Biology Graduate Program (https://eeb.arizona.edu/grads). The application deadline for both programs is December 1st.

Dr. Luciano M. Matzkin Associate Professor University of Arizona Department of Entomology BIO5 Institute Department of Ecology and Evolutionary Biology 520-621-1955 Marley 641F www.matzkinlab.org "Matzkin, Luciano Matias - (lmatzkin)" <lmatzkin@email.arizona.edu>

UArizona HostParasiteEvolution

Last chance: Graduate student opportunities in the evolutionary genetics of host-parasite interactions at the University of Arizona

The Schlenke Lab studies host-parasite interactions using Drosophila (fruit flies) as model hosts. We are developing parasitoid wasps, which lay their eggs in fly larvae and consume their hosts from the inside out, as model parasites. Flies mount cellular and behavioral defense responses against wasps, but wasps have adaptations for finding host fly larvae, suppressing host cellular immunity, and manipulating host behavior. We use a variety of "omics" tools to understand the molecular genetics of fly cellular immunity and wasp virulence, as well as patterns of host immunity and pathogen virulence coevolution across fly and wasp phylogenies. For more information, visit our lab website at: https://cals.arizona.edu/research/schlenke/ If you are interested in our lab please contact Todd Schlenke (schlenke@email.arizona.edu). Candidates may apply through the Entomology and Insect Science (EIS) Graduate Program (https://insects.arizona.edu/) or the Ecology and Evolutionary Biology Graduate Program

(https://eeb.arizona.edu/grads). The application deadline for both programs is December 1st.

Dr. Todd Schlenke Associate Professor University of Arizona Department of Entomology Department of Ecology and Evolutionary Biology https://cals.arizona.edu/research/schlenke/ 520-621-7167

Todd Schlenke <schlenke@email.arizona.edu>

UBergen Norway EvolutionaryEcology

PhD position in Evolutionary Ecology

There is a vacancy for a PhD position in evolutionary ecology at the Department of Biological Sciences (BIO, https://www.uib.no/en/bio), with the Evolutionary Ecology (EvoFish) research group (https://www.uib.no/en/rg/evofish).

The position is part of the project 'Cost of life-history adaptations: Multiple-trait consequences of fisheries-induced evolution', funded by the Research Council of Norway (https://www.uib.no/en/rg/evofish/120408/cost-life-history-adaptations-guppies). The position is for a fixed-term period of 3 years with the possibility of a 4th year with compulsory other work (e.g. teaching duties at the department).

To apply: https://www.jobbnorge.no/en/available-jobs/job/160034/phd-position-in-evolutionary-ecology Deadline: Sunday, November 25, 2018

About the project/work tasks

- The project set up to understand the complex ways in which organisms pay costs of adapting to external stressors, such as elevated mortality from harvesting. The project is taking advantage of the guppy lines that have been subjected to different types of size- dependent harvesting. - The project involves both experiments with live fish and molecular analyses of experimental animals to characterize their trait variation at both macroscopic and microscopic levels, supported by advanced methods for data analyses. - The work involves collaboration with partners in Norway, Scotland, Canada, and USA. - The PhD student is expected to contribute to all parts of the project, including planning and execution of experiments and analyses, and reporting and communicating the results.

Qualifications and personal qualities:

- Applicants must hold a master's degree or the equivalent in evolutionary biology, ecology, or organismal biology, or must have submitted his/her master's thesis for assessment prior to the application deadline. It is a condition of employment that the master's degree has been awarded. - Experience from working with multicellular organisms to study questions in ecology or evolution, or with using molecular methods to study phenotypic adaptation is a requirement. Experience with working with fish behavior and physiology are advantages. The applicant must show a good understanding on principles of evolutionary ecology. - Applicants must be able to work independently and in a structured manner, and demonstrate good collaborative skills. - Applicants must be proficient in both written and oral English. - Personal and relational qualities will be emphasized. Ambitions and potential will also count when evaluating the candidates.

We can offer:

- a good and professionally challenging working environment - salary at pay grade 51 (code 1017/pay range 20, alternative 9) in the state salary scale. This constitutes a gross annual salary of NOK 449 400. Further promotions are made according to length of service in the position. - enrolment in the Norwegian Public Service Pension Fund - a position in an inclusive workplace (IA enterprise) - good welfare benefits

Your application must include:

- a brief account of the applicant's research interests and motivation for applying for the position - a brief proposal for a research plan for the PhD-project (about 1 page) - the names and contact information for two referees. One of these should be the main advisor for the master's thesis or equivalent thesis - CV - transcripts and diplomas showing completion of the bachelor's and master's degrees, or official confirmation that the master's thesis has been submitted - relevant certificates/references - a list of any works of a scientific nature (publication list) - The application and appendices with certified translations into English or a Scandinavian language must be uploaded at Jobbnorge.

About the PhD position The fellowship will be for a period of 3 years, with the possibility for a 4th year, consisting of 25 % compulsory work (e.g. teaching responsibilities at the department) distributed across the employment period. The 4th year is contingent on the qualifications of the candidate and the teaching needs of the department, and will be decided upon appointment.

The employment period may be reduced if you have previously been employed in a qualifying post (e.g. research fellow, research assistant).

About the research training As a PhD candidate, you must participate in an approved educational programme for a PhD degree within a period of 3 years. A final plan for the implementation of the research training must be approved by the faculty within three months after you have commenced in the position. It

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UCambridge ConservationBiology

The University of Cambridge Climate, Life and Earth (C-CLEAR) Doctoral Training Partnership (funded by NERC) is open for applications for students wishing to start PhD research in October 2019. The closing date is January 3rd (note that an earlier date may apply for people also seeking other sources of funding).Supervisors have posted PhD project descriptions, and you are invited to view the ones in the area of biology and conservation here:

https://nercdtp.esc.cam.ac.uk/programme/biology-and-conservation Projects within this theme are available with lead supervisors in Earth Sciences, Genetics, Geography, Plant Sciences and Zoology.

You can find projects with a particular supervisor or keyword using the searchable list (https://nercdtp.esc.cam.ac.uk/programme/project-list)

NERC funding is only available to UK/EU students, however other sources of funds may be available. Whatever your funding status, if you are interested in a project, you are strongly urged to contact potential supervisors for more information.

– Yvonne Gibbs Cambridge C-CLEAR & ESS NERC DTP Administrator Room 212A Department of Earth Sciences Downing Site Cambridge CB2 3EQ

dtp-admin@esc.cam.ac.uk 01223 768338

My normal working hours are Tuesday, Wednesday and Thursday from 8:30-3:00

You can find Information on how we use your personal information on the webpages below: Students: https://www.information-compliance.admin.cam.ac.uk/data-protection/student-data   Staff: https://-

www.hr.admin.cam.ac.uk/hr-staff/hr-data/how-we-handle-your-personal-data Visitors: https://-www.information-compliance.admin.cam.ac.uk/-data-protection/general-data DTP Administrator <dtp-admin@esc.cam.ac.uk>

UCambridge EvolutionaryBio

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NERC funding is only available to UK/EU students, however other sources of funds may be available. Whatever your funding status, if you are interested in a project, you are strongly urged to contact potential supervisors for more information.

Chris Jiggins <c.jiggins@zoo.cam.ac.uk>

UCentralFlorida ScrubJayGenomics

University of Central Florida, Department of Biology PhD position in Avian Evolutionary and Conservation Genomics Inquiry deadline: November 30, 2018 Application deadline: January 15, 2019 The Hoffman and Savage labs invite applications for a joint PhD position working on a funded project focused on genomics and conservation of endangered Florida scrub jays.

Starting date: August 2019 Duration: 4-6 years Compensation: Graduate Teaching Assistantship (GTA) stipend during Fall and Spring semesters; Graduate Research Assistantship (GRA) stipend for at least the first two summers.

Project Overview: Construction and other causes of habitat loss have led to destruction and fragmentation of suitable habitat for Aphelocoma coerulescens, the Florida scrub-jay (FSJ). In the past, translocation has been used as a management strategy for mitigating negative impacts to many wildlife populations, including FSJ populations. However, translocation may not be the ideal solution given that translocation itself can have negative impacts, particularly for FSJs which exhibit complex social behavior that may cause difficulty in surviving and reproducing at the site of translocation. An alternative approach could be to passively manage FSJs following habitat loss, assess whether they relocate on their own, and if so, determine whether their survival and reproduction is based on genomic compatibility with resident birds. We are conducting a systematic analysis of the benefits of these two strategies - passive management versus active translocation - by conducting four years of monitoring and banding FSJs and collecting a variety of samples for genetic, genomic, immunity, and health assessments. Ultimately, we will incorporate functional and population genomics, measures of immunity and disease, and survival/recruitment parameters to integrate structured decision making (SDM) to assess the long-term feasibility of passive compared to active translocation when FSJs suffer habitat loss.

Dissertation topics and required skills: We are seeking a highly motivated PhD student to focus on whole genome resequencing and bioinformatics of FSJs, including birds impacted by habitat loss and birds that do not face direct habitat threats. A Master's degree is not required. However, we will give priority to candidates with extensive bioinformatics experience working with whole genome or genome-scale datasets in non-model organisms. The student will have access to and be a member of UCF's interdisciplinary Genomics and Bioinformatics Cluster, including computational and benchtop resources (Savage and Hoffman both hold cluster appointments). Dissertation focus will be flexible, at the discretion of the student, within the broader context of conservation genomics, population genomics, and evolutionary genomics using FSJs as the focal taxon.

Inquiries should be directed to Anna Savage (anna.savage@ucf.edu) and Eric Hoffman (eric.hoffman@ucf.edu) by December, 2018. The link below provides instructions on how to apply to the UCF Biology PhD program. https://sciences.ucf.edu/-biology/graduate-program/phd-program/ Eric Hoffman Associate Professor and Undergraduate Program Coordinator UCF Department of Biology

Eric Hoffman <Eric.Hoffman@ucf.edu>

UEastAnglia 2 EvolutionaryEcology

I have two PhD studentships available to join my group in the School of Biological Sciences at the University of East Anglia (UEA). The studentships use experimental evolution, ecological modelling and population genomics to study population establishment, dispersal and invasion.

POSITION 1: Why are pests so successful? The evolutionary ecology of population establishment and spread. Deadline 26th Nov 2018. Details here: https://www.findaphd.com/search/-ProjectDetails.aspx?PJID0953 POSITION 2: The evolutionary ecology of dispersal in invading populations. Deadline 8th Jan 2019. Details here: https://www.findaphd.com/search/-ProjectDetails.aspx?PJID2072 The students will join a growing and excellently resourced research group in a thriving department, where they will form part of a large, interactive cohort of students. UEA is situated in Norwich - a busy and cultural, yet affordable, city with excellent links to the North Norfolk coast and Norfolk Broads. Both projects offer excellent opportunities for training in experimental research, ecological modelling, field work and bioinformatics.

Interested applicants are encouraged to contact the primary supervisr: l.spurgin@uea.ac.uk

Dr Lewis Spurgin | BBSRC Research Fellow | School of Biological Sciences BIO 01.24, University of East Anglia, Norwich Research Park, Norwich, NR4 7TJ

Tel: 01603 592947 | Email: l.spurgin@uea.ac.uk | Web: lewisspurgin.wordpress.com

"Lewis Spurgin (BIO - Staff)" <L.Spurgin@uea.ac.uk>

UEastAnglia 2 InsectEvolution

Sex-conversion gene drives for insect pest management

A collaborative project with Prof Tracey Chapman, Dr Lewis Spurgin and Professor Matt Gage (UEA, UK) and Dr Phil Leftwich and Dr Tim Harvey-Samuel (The Pirbright Institute, UK).

You will use CRISPR/Cas9 gene editing to investigate the molecular pathways of male/female sex determination, to develop novel sex conversion gene drives to combat a global agricultural pest, the Mediterranean Fruit Fly (Ceratitis capitata).

Please contact tracey.chapman@uea.ac.uk for further questions!

To apply, see:

http://www.biodtp.norwichresearchpark.ac.uk/-projects/project/sex-conversion-gene-drives-for-insect-pest-management-chapmanu19dtp1   Application deadline Nov 26th 2018

Sexual detection: mechanisms underlying adaptive reproductive plasticity

How do individuals sense those around them and respond? Apply for this PhD project and find out!

A collaborative PhD project with Profs Tracey Chapman and Matt Gage (UEA, UK), Prof Clive Wilson (Oxford) and Dr Wilfried Haerty (The Earlham Institute, UK).

An important part of being successful is to respond to rapidly changing environments. Fruitfly males show highly precise responses to their social and sexual environment. Following detection of rivals (using multiple sensory inputs), males transfer more ejaculate proteins to females and sire more offspring. They can even alter the composition of their ejaculates. The overarching aim is to find out how males do this. We think that males use different mechanisms to turn on / off genes and signals and change the way that ejaculate proteins are made and expelled. You will test these ideas. You will test the effect of genetic manipulations of the accessory glands that make seminal proteins, conduct full genome sequencing to characterise genetic variation and the genome-wide signatures underlying weak and strong social responders and profile changes to male reproductive cells using high resolution microscopy.

Please contact tracey.chapman@uea.ac.uk for +further questions!

To apply, see: http://-www.biodtp.norwichresearchpark.ac.uk/projects/-project/sexual-detection-mechanismsunderlying-adaptive-reproductive-plasticity-chapmanu19dtp2 Application deadline Nov 26th 2018!

"Tracey   Chapman   (BIO   -   Staff)"

<Tracey.Chapman@uea.ac.uk>

UEastAnglia 2 SexualSelection

Two competitive PhD studentships are available to study sexual selection and ageing, and parental effects on fitness and adaptation in the Maklakov lab at UEA:

1. BBSRC-funded:

PhD Studentship: The Sex Factor: Why do Males and Females Age Differently and have Different Lifespans? (MAKLAKOV_U19DTP)

University of East Anglia - School of Biological Sciences Qualification Type: PhD Location: Norwich Funding for: UK Students, EU Students Funding amount: pounds 14,777 per annum Hours: Full Time DEADLINE: 26th November 2018 Start date: 1/10/2019

Supervisor: Alexei   Maklakov   https://-alexeimaklakov.com/ Co-Supervisors: Tracey Chapman https://www.traceychapmanresearch.com/ and Matt Gage https://matthewgagelab.com/ Project description

Males and females in many different species, including humans, have different longevities and rates of ageing. Despite the decades of research, we still do not know why this is the case. The leading hypothesis maintains the sexes resolve the fundamental trade-off between survival and reproduction differently. Because females produce large expensive gametes (eggs), their fitness often is limited by the amount of resources they can accumulate and, therefore, females are predicted to invest into somatic maintenance to ensure longer reproductive lifespan. On the contrary, males produce numerous cheap gametes (sperm) and are often limited only by the number of mates. Therefore, selection favours "live fast, die young" strategy in males resulting in high reproductive performance in early life followed by faster ageing relative to females. Because males and females share most of their genes, such sex-specific life-histories are likely defined by sex-specific gene expression. In this project, we will use the key model organism in genetics, Caenorhabditis elegans nematodes, to investigate how sex-specific gene expression in major molecular signalling pathways that control life-histories affects sexual maturation, mating behaviour, ageing, longevity and reproduction. You will use the power of this system to modify the targeted gene expression in young and old animals of both sexes using RNA interference and assay physiological senescence, reproductive ageing and longevity. You will test the ultimate prediction that males invest less than females in somatic maintenance when they perceive reproductive opportunities. This PhD is an opportunity to investigate one of the big questions in biology - why do we age - from the unique angle of sexual dimorphism in life-history.

Person Specification UK 2:1 & English Language (6.5 overall, 6 in each section)

Funding notes For funding eligibility guidance, please visit our website: http://-biodtp.norwichresearchpark.ac.uk/how-to-apply/-funding-and-eligibility .Full Studentships cover a stipend (UKRI rate: pounds 14,777 pa ' 2018/9), research costs and tuition fees at UK/EU rate and are available to UK and EU students who meet the UK residency requirements.

Students from EU countries who do not meet the UK residency requirements may be eligible for a fees-only award. Students in receipt of a fees-only award will be eligible for a maintenance stipend awarded by the NR-PDTP Bioscience Doctoral Scholarships. To be eligible students must meet the EU residency requirements.

This project has been shortlisted for funding by the Norwich Biosciences Doctoral Training Partnership (NR-PDTP). Shortlisted applicants will be interviewed as part of the studentship competition. Candidates will be interviewed on either the 8th, 9th or 10th January 2019.

The NRP DTP offers postgraduates the opportunity to undertake a 4-year research project whilst enhancing professional development and research skills through a comprehensive training programme. You will join a vibrant community of world-leading researchers. All NR-PDTP students undertake a three-month professional internship (PIPS) during their study. The internship offers exciting and invaluable work experience designed to enhance professional development. Full support and advice will be provided by our Professional Internship team. Students with, or expecting to attain, at least an upper second-class honours degree, or equivalent, are invited to apply. Please contact A.Maklakov@uea.ac.uk for further questions about the project.

2. NERC-funded

The long arm of parents: non-genetic effects on fitness, population viability and adaptive evolution (MAKLAKOV_UBIO19ARIES)

University of East Anglia - School of Biological Sciences Qualification Type: PhD Location: Norwich Funding for: UK Students, EU Students Funding amount: Stipend if eligible Hours: Full Time DEADLINE: 8th

January 2019 Reference: MAKLAKOV_UBIO19ARIES
Start date: October 2019

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UEdinburgh PopulationGenetics

PhD Position available at the Institute of Evolutionary Biology, University of Edinburgh, UK.

Supervisors: Matthew Hartfield, Jarrod Hadfield Title: How are multiple adaptive genes affected by an organisms' frequency of sex?

Project Description: Reduced costs of genome sequencing have seen an expansion in the amount of genetic data available from various species, from which researchers are learning more about the crucial evolutionary process of adaptation. Yet the vast majority of existing methods for quantifying selection acting on the genome assume that organisms are completely sexual. Many organisms, including crops and plant pathogens, are instead capable of some degree of Âuniparental reproduction', where individuals can produce offspring without needing a second parent. These includes hermaphrodites that are capable of self-fertilisation (where individuals produce both male and female sex cells that can fertilise one another), or facultative sexuals (where individuals produce some offspring via clonal reproduction).

While we understand how reproductive modes affect a few genes that carry adaptive mutations, these results are unlikely to scale to the more realistic scenario where adaptation is caused by many genes scattered through a genome. In this highly interdisciplinary project, the student will create mathematical models to understand the nature of genome-wide adaptation, and develop novel methods to test those models through analysing genetic data. There will be potential to investigate a wide range of organisms, including highly self-fertilising plants (Arabidopsis thaliana; Capsella rubella; Medicago truncatula), those whose occurrence of self-fertilisation varies throughout its range (Arabis alpina), and plant pathogens (e.g. the Phytophthora genus that infects strawberries). The project will provide the student with cutting-edge mathematical and bioinformatics skills for theoretical prediction and genome sequence analysis, which are essential for modern biology research.

The expected starting date is October 2019.

More details about the project, including application details, are available from the following links: - BBSRC EASTBIO funding is available to UK nationals, or EU nationals who have been resident in the UK for three years prior to the start date. Deadline is the 5th December 2018. Further details and application instructions: https://www.findaphd.com/-search/ProjectDetails.aspx?PJID0991 < https://-apps.bio.ed.ac.uk/pgr/checklist/project/759 > - For those who wish to apply for funding via other schemes (e.g., the Darwin Trust), the deadline is the 13th December 2018. Further details and application instructions: https://www.findaphd.com/search/-ProjectDetails.aspx?PJID0992 Interested students can email me to ask for more details.

Matthew Hartfield m.hartfield@ed.ac.uk https://-matthartfield.wordpress.com < http://-matthartfield.wordpress.com >The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336.

Matthew Hartfield <mhartfie@exseed.ed.ac.uk>

UExeter 2 MarineGenomics

I have two PhD studentships available which I hope you can advertise on EvolDir. Both are on fisheries relevant (microbial eukaryotic) parasites. My work has always a strong evolutionary angle to I am sure they are fine for EvolDir.

1. Understanding the interaction of parasites and copepods:

http://www.exeter.ac.uk/studying/funding/award/-?id334 2. Comparative genomics of fish and crustacean parasites:

http://www.exeter.ac.uk/studying/funding/award/-?id294 Dr Mark van der Giezen FRSB FLS SFHEA Senior Lecturer in Evolutionary Biochemistry /Biosciences/University of Exeter/Stocker Road/Exeter EX4 4QD/UK

Tel: +44 (0)1392 723483 e-mail: m.vandergiezen@exeter.ac.uk http://-www.vandergiezen.org @MitoRem

PGP: D60972FB

"Van   Der   Giezen,   Mark"
<M.vanderGiezen@exeter.ac.uk>

UExeter ParasiteHostRange

PhD studentship working on evolution of host range/host shifts/host adaptation in Staphylococcus-bacteriophage system with Ben Longdon and Angus Buckling at the University of Exeter Cornwall campus-application link https://www.swbio.ac.uk/programme/-projects-available/animal-behaviour-vivo/ and full project details https://cpb-eu-w2.wpmucdn.com/-blogs.bristol.ac.uk/dist/f/373/files/2018/10/swbio-19-project-64-1qzlu33.pdf Best,

Ben

– Dr Ben Longdon Sir Henry Dale Wellcome Trust/Royal Society Senior Research Fellow University of Exeter Penryn Campus Cornwall TR10 9FE +44 (0) 1326 259460 https://benlongdon.com/ "Longdon, Ben" <B.Longdon2@exeter.ac.uk>

UExeter ResistanceEvolModelling

Graduate position: UExeter.ResistanceEvolModelling

Title: Hindering evolution of resistance to pesticides through optimizing landscape structure and application practice

Location: University of Exeter, Streatham Campus, Exeter EX4 4QJ

Primary Supervisor: Dr. Wolfram Moebius, Department of Physics and Astronomy, College of Engineering, Mathematics and Physical Sciences

Additional Supervisors: Dr. Ricardo Kanitz, Syngenta Crop Protection. Dr. Tim Rogers Department of Mathematical Sciences, University of Bath. Prof. Ivana Gudelj, Department of Biosciences, College of Life and Environmental Sciences, University of Exeter.

Aim: Explore the effects of landscape structure and application of crop protection on the evolution of resistance to pesticides

Background: The evolution of pesticide resistance is one of the main issues faced by agricultural practice throughout the world. The ability of the industry's Research & Development engines to generate new products has not managed to keep up with the rate in which pests develop resistance. Understanding the effect of landscape structure and temporal use of pesticides will bring insight into resistance management strategies.

Project: The project will investigate how landscape structure and use of pesticides influence the evolution of resistance. To achieve this goal, extensive simulations and theoretical work assuming simplified models for the spread of pests and evolution of resistance will be used. These findings will be combined with detailed models capturing most of the complexity of selected pests and crop protection agents. We anticipate that the results can be used to develop optimization routines to identify landscapes and application schemes of crop protection agents that hinder resistance evolution and mitigate its consequences.

Funding, training, and experience to be gained: Funding is available for 3.5 years. During this time, the candidate will be trained and gain research experience in mathematical biology and simulation techniques. The project will be co-supervised by researchers with experience in evolutionary biology, mathematics, and physics. The project represents an opportunity to join the community at the Living Systems Institute, benefit from cross-institutional supervision, and includes a placement in a world-leading company. The combination of modelling, simulations, and application will provide a very competitive skill set.

Suitability: The project is suitable for candidates with different backgrounds, ranging from mathematics to physical and biological sciences.

Keywords: evolutionary biology, agriculture, resistance, modelling Additional information: http:/-/www.exeter.ac.uk/studying/funding/award/?id388 Thanks in advance. Best regards, Ricardo Kanitz, Ph.D.

Analytics and Modelling Expert Global Product Biology Data Analytics Syngenta Crop Protection, Switzerland

Kanitz Ricardo CHBS <ricardo.kanitz@syngenta.com>

UFlorida AntSocialEvolution

Interested in Using Genetic Tools to Study Social Evolution in Ants? Apply for Graduate School at the University of Florida (UF)

The Yan Lab in the UF Biology is seeking graduate researchers to study how evolutionary expansion of odorant receptor genes in ants regulates social communication and neural development, as well as how behavioral plasticity and reproductive longevity were evolved in eusocial insects.

Information on Dr. Yans research can be found: www.ncbi.nlm.nih.gov/pubmed/28802035 (Developing Genetic Tool in Ants)

www.ncbi.nlm.nih.gov/pubmed/28802043 (Odorant Receptor)

www.ncbi.nlm.nih.gov/pubmed/25200663 (Behavioral Epigenetics)

Interested students are strongly recommended to apply for the graduate school at the University of Florida for Fall 2019. The deadline for applications to UF Biology is December 1, so please contact me soon! Email: hua.yan@ufl.edu More information can be found at the website: https://biology.ufl.edu/graduate/application/ The University of Florida is an Equal Opportunity Institution. Individuals from under-represented groups in STEM are particularly encouraged to apply.

"Yan,Hua" <hua.yan@ufl.edu>

UFlorida EvolutionVertebrates

GRADUATE POSITIONS IN SHARK EVO-DEVO

The Fraser Lab at the Department of Biology, University of Florida is excited to offer graduate research positions to start Fall 2019. Enthusiastic candidates should apply to the Graduate School at UF to study vertebrate evolutionary developmental biology.

Our Lab studies a range of vertebrate models, and our interests include the evolution and development of vertebrate diversity, tooth development and regeneration, skin appendage patterning and diversity, and EvoDevOmics. A background or interest in evolutionary/comparative morphology, developmental biology, palaeontology, genetics, or bioinformatics is preferred.

Deadline for applications is December 1st 2018.

To find out more about the Fraser Lab visit: www.fraserlab.net Feel free to contact Gareth Fraser for more information: g.fraser@ufl.edu

Representative recent papers:

Sox2+ progenitors in sharks link taste development with the evolution of regenerative teeth from denticles http://www.pnas.org/content/early/2016/12/06/1612354113 An ancient Turing-like patterning mechanism regulates skin denticle development in sharks

http://advances.sciencemag.org/content/4/11/eaau5484 Spatially restricted dental regeneration drives pufferfish beak development http://www.pnas.org/content/114/22/E4425 Deadline for applications is December 1st 2018.

More information on the application process can be found at the website: https://biology.ufl.edu/graduate/application/ The University of Florida is an Equal Opportunity Institution. Individuals from under-represented groups in STEM are particularly encouraged to apply.

"Fraser,Gareth John" <g.fraser@ufl.edu>

UGeorgia EvolutionaryBiol

We are excited to announce a graduate recruitment event in ecology, evolution, and environmental science at the University of Georgia. The event is being supported by the President's New Approaches Initiative to promote and institutionalize new ways to enhance diversity and promote an inclusive environment in the UGA Community. This project was initiated by the Odum School of Ecology and is supported by the Center for Integrative Conservation Research, the Peach State Louis Stokes Alliances for Minority Participation (LSAMP) Program, and the Graduate School of the University of Georgia.

The purpose of the event is to create an opportunity for participants to interact with potential graduate advisors and UGA graduate students BEFORE submitting an application to graduate school and to learn more about apply for graduate school and fellowship programs. Therefore, prospective participants should be planning to apply for graduate school in 2019 for admission to PhD programs in 2020.

The event will occur between 28 February- 2 March 2019. Participants will have the opportunity to network with faculty and graduate students and will participate in workshops devoted to learning successful tips in applying to graduate school, contacting potential mentors, and preparing applications for fellowship programs, including the NSF GRFP and the Ford Predoctoral Fellowship.

Please visit this page (http://www.ecology.uga.edu/-

new-approaches-grad-event/) to learn more about the event and access the application. Applications are due on 1 December 2018 and decisions will be made and applicants will be notified during the first two weeks of January. Please send this information to potential participants and post the link to the event on social media! If you have any questions about the event, please contact newapproaches-ees@uga.edu.

Jill T Anderson <jta24@uga.edu>

UGeorgia EvolutionaryBiology

The University of Georgia is seeking graduate students to join a large community of ecology and evolutionary biology researchers through the Integrated Life Sciences (ILS) program.

Admission through the ILS program allows new graduate students to explore research across 14 participating Ph.D. graduate programs, including over 50 laboratories with diverse ecology and evolutionary biology interests. Over their first semester in the program, graduate students can choose rotations among laboratories from nearly all life science departments.

The application deadline for Fall 2019 admission to the ILS program is December 3, 2018. To learn more about the ILS program and research at the University of Georgia, please visit the website at:

http://ils.uga.edu Potential students are encouraged to explore the ecology and evolutionary biology research underway at UGA through the ILS program and to get in contact with faculty whose research they are interested in:

http://evolutionary.genetics.uga.edu/EvoEcol.html
Athens, Georgia is a vibrant college town and is consistently ranked one of the top places to live.

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

Michael White Evolution and Ecology ILS Group Representative Assistant Professor of Genetics whitem@uga.edu

Walter Schmidt Graduate Coordinator of the ILS Program Associate Professor of Biochemistry and Molecular Biology wschmidt@uga.edu

whitem@uga.edu

UGlasgow 3 AdaptationGenomics

PhD Opportunities for autumn 2019 Institute of Biodiversity, Animal Health and Comparative Medicine University of Glasgow, Scotland UK PI: K.R. Elmer

I have three well funded, multidisciplinary PhD studentship projects available in the IAPETUS NERC doctoral training programme.

We are seeking ambitious and creative researchers with keen interest in evolution and environment and excellent academic records. You will join an active, productive and collegial research team in the Evolutionary Analysis Group of the Institute of Biodiversity, Animal Health and Comparative Medicine.

These projects have outstanding opportunities to conduct research with co-supervisors, including other parts of Uni Glasgow, St Andrew's University in Scotland, Peterborough and Lancaster in England, and Spain. The research involves field, experimental, and molecular research on fishes, salamanders, or newts.

Closing 18 January 2019 16h GMT

For details of projects on offer, please see IAP2-18-04: Environmental and genomic associations with colour and toxicity: biological insights for newt species of conservation concern (CASE Partner project) with Oscar Gaggiotti (St Andrews) and Laurence Jarvis (Froglife) as co-supervisors and with support from Karl Burgess (Glasgow Metabolomics) http://www.iapetus.ac.uk/-iap2-18-04-environmental-and-genomic-associations-with-colour-and-toxicity-biological-insights-for-newt-species-of-conservation-concern/ IAP2-18-05: From molecules to populations: the genomic legacy of historic pollution on freshwater fish (CASE Partner project) with Steve Lofts (Centre for Ecology and Hydrology Lancaster) and Willie Yeomans (Clyde River Foundation) as co-supervisors http://www.iapetus.ac.uk/iap2-18-05-from-molecules-to-populations-the-genomic-legacy-of-historic-pollution-on-freshwater-fish/ IAP2-18-06: Genetic mechanisms of amphibian colour pattern and toxicity in the natural environment with Oscar Gaggiotti (St Andrews) as co-supervisor and support from Karl Burgess (Glasgow Metabolomics) and David Vieites (Museo Nacional de Ciencias Naturales, Madrid) http://www.iapetus.ac.uk/iap2-18-06-genetic-mechanisms-of-amphibian-colour-pattern-and-toxicity-in-the-natural-environment/ Eligibility IAPETUS is

only able to consider applications from UK/European Union candidates. Where a non-UK EU candidate has not been resident in the UK for 3 years or more prior to the commencement of their studies with IAPETUS, they will only be eligible for a fees-only studentship (research support, tuition fees, but no stipend).

Application Process Prospective students must apply to the University of Glasgow Graduate School (College of Medical, Veterinary and Life Sciences) via the postgraduate student applications system. In the application, students need to specify clearly that they wish to be considered for an IAPETUS2 studentship and state the research project that they wish to be considered for (can only choose ONE).

For more details see https://elmerlab.blogspot.com https://www.findaphd.com/search/-ProjectDetails.aspx?PJID=102843 https://-www.findaphd.com/search/ProjectDetails.aspx?PJID=-102842 https://www.findaphd.com/search/-ProjectDetails.aspx?PJID=102817 The successful applicant will proceed to a competitive selection interview at the IAPETUS2 Studentships Panel on Wednesday 20th February 2019.

Informal inquiries to Kathryn Elmer in advance are encouraged.

Dr. Kathryn R. Elmer

Institute of Biodiversity, Animal Health and Comparative Medicine University of Glasgow Graham Kerr Building, Glasgow, G12 8QQ Scotland

kathryn.elmer@glasgow.ac.uk tel: +44 141 330 6617

http://www.gla.ac.uk/researchinstitutes/bahcm/staff/-kathrynelmer/ https://www.researchgate.net/profile/-Kathryn_Elmer Kathryn.Elmer@glasgow.ac.uk

UHamburg EvolutionHypoxiaTolerance

Ph.D. position at the University of Hamburg "The evolution of molecular mechanisms of hypoxia-tolerance in marine mammals"

The University of Hamburg invites applications for a Ph.D. position in accordance with Section 28 subsection 3 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG). It is remunerated at the salary level TV-L 13 and calls for 50% of the standard working time per week (full-time positions currently comprise 39 hours per week). The fixed-term nature of this contract is based upon Section 2 of the Academic Fixed-Term Labor Contract Act (Wissenschaftszeitvertragsgesetz). The initial fixed term is three years.

Research project: The successful candidate will work on a project dealing with the adaptations of the brain of marine mammals to the lack of oxygen (hypoxia) induced by diving. While the neurons of most terrestrial mammals suffer from irreversible damage after only short periods of hypoxia, the brain of deep diving mammals tolerates extended periods of hypoxia without losing their functional integrity. The project aims to elucidate the molecular mechanisms underlying the observed hypoxia tolerance by comparative studies of the metabolome and transcriptome of marine and terrestrial mammals.

Requirements: We are looking for a motivated Ph.D. student with: Â a Master's degree in biology or a related field Â good knowledge of molecular and protein biochemical techniques Â experience in mass spectrometry or gas chromatography is desirable Â experience in the analysis of NGS data or the willingness to acquire this skill Â reliability and the ability to work independently displaying initiative and careful creative thought Â good verbal and written English Â friendly nature and team spirit Severely disabled applicants will receive preference over equally qualified nonÂdisabled applicants. The University aims to increase the number of women in research and teaching and explicitly encourages qualified women to apply. Equally qualified female applicants will receive preference in accordance with the Hamburg Equality Act (Hamburgisches Gleichstellungsgesetz).

For further information, please contact Dr. Cornelia GeÃÂner (cornelia.gessner@uni-hamburg.de) or Prof. Thorsten Burmester (thorsten.burmester@uni-hamburg.de). The job announcement is also available at https://www.uni-hamburg.de/en/uhh/stellenangebote/-wissenschaftliches-personal/07-12-18-403-en.pdf How to apply: Candidates should submit their application with a CV, a cover letter reporting any relevant experience and your motivation, a copy of the certificate of the Master's degree and the names of two potential referees as a single pdf-file to cornelia.gessner@uni-hamburg.de

Closing date for applications is 7th December 2018.

Cornelia GeÃÂner <cornelia.gessner@uni-hamburg.de>

UIceland
EvolGenomicsHighlyFecundGadids

PhD student position at the Institute of Life- and Environmental Sciences, University of Iceland

The evolutionary and population genomics group of Einar Arnason at the Institute of Life- and Environmental Sciences (ILES) at University of Iceland invites applications for a full-time PhD position in evolutionary genomics for the research topic: Analysis of selection in highly fecund Atlantic cod from time-series of whole-genome data.

Our research focus is on understanding evolutionary processes in highly fecund organisms. We use highly fecund gadids as study organisms. With a recently awarded Icelandic Research Fund Grant of Excellence we will obtain unparalleled amount of whole-genome sequence data from various gadid populations. Whole-genome sequence data holds huge promise in furthering our understanding of the mechanisms of selection, speciation and adaptation in natural populations. This collaborative project is joint with Katrin Halldorsdottir at ILES, Alison Etheridge at the Department of Statistics in University of Oxford, and Wolfgang Stephan and Bjarki Eldon at the Leibniz Institute for Evolution and Biodiversity Science in Berlin. Among our collaborators are Montgomery Slatkin and Rasmus Nielsen at University of Berkeley in California, Fernando Racimo Centre for GeoGenetics Copenhagen University and Tim Sackton Director of Bioinformatics at Harvard University.

The student will be based at University of Iceland and work under the supervision of Einar Arnason, Katrin HalldÃÂ³rsdÃÂ³ttir, and Bjarki Eldon in Berlin. This is a highly interdisciplinary project combining latest molecular technology, and advanced statistical and bioinformatic analysis. We will maintain good communication between all participants. The position therefore comes with possibilities to visit participating labs and groups in Berlin, Berkeley, Copenhagen, Oxford, and Cambridge (MA).

Analysis of time-series of samples using whole-genome sequencing promises to be a powerful way of understanding evolutionary history, in particular, for detecting selection.

We are looking for a highly motivated individual with a strong interest in evolutionary and population genomics.

The University of Iceland expects PhD candidates to complete their studies and write and defend a dissertation within a time period of 3 years after a master's degree according to the Bologna process.

Requirements

- M.Sc. (or equivalent) in biology with good skills in statistics and/or computer work or - M.Sc. (or equivalent) in statistics, mathematics, or computer science with background/knowledge in biology. - Experience in data analysis - Ability to work both independently and in a team - Proficiency in written and spoken English

Additional desireable qualifications - Experience in analysing genomic data is an asset - Strong interest in evolutionary biology and genomics - Knowledge of UNIX/Linux is an asset

Application deadline and further information Starting date is flexible from January 2019. - Funding is guaranteed for three years.

Please apply through the University of Iceland website, vacancies.

Application deadline is December 10, 2018.

For further information, please contact Einar Arnason (einararn@hi.is).

Please include the following in the application: i) 1-2 pages motivation letter, which should state interest in the project, expectations for your Ph.D. studies and what makes you qualified for the position, ii) CV and publication list (if any), iii) transcripts from B.Sc. and M.Sc. studies, and a list of courses during postgraduate studies, iv) contact information for 2 letters of reference.

All applications will be answered and applicants will be informed about the appointment when a decision has been made. Applications may be valid for six months.

See references to related work prior to the project:

1. Alba Refoyo-MartÃÂ'nez, Rute R. da Fonseca, KatrÃÂ'n HalldÃÂ³rsdÃÂ³ttir, Einar Ã rnason, Thomas Mailund, Fernando Racimo 2018. Identifying loci under positive selection in complex population. bioRxiv 453092. doi: 10.1101/453092

2. Einar Ã rnason and KatrÃÂ'n HalldÃÂ³rsdÃÂ³ttir. 2015. Nucleotide variation and balancing selection at the Ckma gene in Atlantic cod: analysis with multiple merger coalescent models. PeerJ e786. doi:10.7717/peerj.786

3. KatrÃÂ'n HalldÃÂ³rsdÃÂ³ttir, Einar Ã rnason 2015. Whole-genome sequencing uncovers cryptic and hybrid species among Atlantic and Pacific cod-fish. BioRxiv 034926. doi: 10.1101/034926

4. Bjarki Eldon and John Wakeley 2006. Coalescent processes when the distribution of offspring number among individuals is highly skewed. Genetics 172:2621-2633. doi:10.1534/genetics.105.052175

5. Bjarki Eldon, Matthias Birkner, Jochen Blath and Fabian Freund 2015. Can the site-frequency spectrum distinguish exponential population growth from multiple-merger coalescents? Genetics 199:

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UIllinois Chicago EcoEvoDevo

Graduate opportunities focusing on eco-evo-devo are available in Alexander Shingletons laboratory at the University of Illinois at Chicago.

The Shingleton Lab uses Drosophila as a model to understand how the environment regulates development to generate phenotypic plasticity and how this regulation evolves. Research in the lab spans multiple disciplines including developmental genetics, physiology, bioinformatics, mathematical modeling, ecology and evolutionary biology, and the project will incorporate many of these. The focus of the graduate research is flexible, but possible projects include: the developmental regulation of body size in response to temperature; the coordination of growth and patterning in response to environmental perturbation; the evolution of nutritional plasticity.

You should hold a bachelors degrees with a major in any natural science, but must be comfortable exploring biological processes at multiple levels of organization. The ideal candidate will have some experience in Drosophila developmental genetics, but individuals with research experience in any natural science are encouraged to apply. Ideally, you should have a solid background in statistics and/or coding and be comfortable with learning R. Candidates who are interested in mathematical modeling of biological processes are particularly encouraged to apply. The position is funded through a combination of TAships and RAships.

The Shingleton Lab offers a dynamic work environment with excellent opportunities for independent and collaborative research. We have a track record of mentoring undergraduate research, and graduates with an interest in working with undergraduates will find a particularly welcoming environment.

The Shingleton Lab moved to UIC in August 2018 and is within the Ecology and Evolution Group in the Department of Biological Sciences. The department is home to a diverse and dynamic set of research groups who study a wide-variety of biological questions, utilizing a correspondingly wide-variety of tools and techniques. The department is located in the center of Chicago. More details of the lab, department and university can be found here:

shingletonlab.org

bios.uic.edu

uic.edu

Interested candidate should contact ashingle@uic.edu for further information, and include a CV.

"Shingleton, Alexander" <ashingle@uic.edu>

UIllinois Microbes

The Heath lab at the University of Illinois at Urbana-Champaign is looking for motivated graduate students interested in evolutionary and ecological genetics. We are interested in recruiting students who want to work on: 1) fungal transcriptomics (a collaboration with Astrid Ferrer and Jim Dalling) or 2) evolution of legume-rhizobium mutualisms. The Heath lab studies a number of plant and microbe systems to answer fundamental questions about how microbes and microbial mutualisms evolve in nature. Find out more about what we do at our website (http://www.life.illinois.edu/heath/Heath_Lab/HOME.html). Students can apply through either the Program in Ecology, Evolution and Conservation (http://sib.illinois.edu/peec/) or the Department of Plant Biology grad program (http://www.life.illinois.edu/plantbio/graduateAdmissions.htm).

Champaign-Urbana is a great college town midway between three major cities (Chicago, St. Louis, Indianapolis), with great food and drink, abundant culture, and affordable cost of living.

University of Illinois and the Heath lab are committed to a diverse workplace, and prospective students of all races, genders, and sexual orientations are encouraged to apply.

Email Katy Heath (mailto:kheath@life.illinois.edu) for more information.

kheath@life.illinois.edu

UKonstanz EvolutionaryBiol

The International Max Planck Research School for Organismal Biology, a joint cooperation between the Max Planck Institute for Ornithology with its two research sites in Seewiesen and Radolfzell and the Department of Biology at the University of Konstanz, is seeking for PhD Candidates (f/m). For 2019, the IMPRS offers various fully-funded PhD projects focusing on olfactory coding, sexual development, glucocorticoid-metabolism interaction, species delimitation, social behaviour, and other exciting research questions in the field of Organismal Biology (see http://www.orn.mpg.de/projects)!

Field of work:

The aim of the IMPRS is to provide first-class training and education for outstanding doctoral students from all over the world in a stimulating research environment. More than 30 scientists work on a variety of topics from animal migration, collective behaviour, computational ecology, evolutionary genetics, neurobiology, sensory systems, social interactions and other related fields. Research includes lab and field work using different model organisms from plants, insects, fish, birds and mammals, as well as diverse techniques from animal tracking, large scale data analysis, molecular genetic analyses, optical imaging or social network analysis.

Requirements:

We invite applications from all countries and from a wide range of backgrounds (biology, engineering science, physics, computer science). Applicants must have graduated from a minimum 4-year study program with a comprehensive scientific thesis work (this might be a Master's degree or an equivalent degree). It is not necessary to hold the degree at the time of application. However, you must have been awarded your degree prior to the start of the program. The quality of the degrees (i.e. eligibility) will be checked by University of Konstanz on a case-by-case basis. Candidates need to be fluent in written and spoken English and - unless native speakers - have to document their proficiency in English (e.g. TOEFL).

Our offer:

All PhD projects are fully funded for at least 3 years. Besides their own research, the IMPRS fellows attend laboratory courses and workshops in relevant transferable skills like scientific writing and project management. Talks by invited speakers during our annual IMPRS symposium, student retreats, and conference participation complete the individually tailored curriculum.

Your application:

You can only apply via the three-tier electronical application process on the Institutes webpage. Please do not send any other type of application by regular mail or email as they will be rejected. The application must be completed in English only. Besides the online application form, we need several documents from you. Documents that are not in English or German need to be translated. You need to upload all the required documents as one single pdf-file.

The Max Planck Society and the University of Konstanz are equal opportunity employers and are committed to increasing the number of individuals with disabilities in their workforce and therefore we encourage applications from such qualified individuals. Furthermore, we seek to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.

Application deadline is January 15, 2019. Please only apply via http://www.orn.mpg.de/2383/Application . More information see http://www.orn.mpg.de/projects, https://www.facebook.com/OrganismalBiology or @IMPRS_OrgBio.

IMPRS for Organismal Biology

Max Planck Institute for Ornithology, Am Obstberg 1, 78315 Radolfzell / Eberhard-Gwinner-Str., 82319 Seewiesen, Germany

University of Konstanz, PO Box 639, 78457 Konstanz, Germany

Mäggi Hieber Ruiz <maeggi.hieber@uni-konstanz.de>

ULethbridge EvolutionaryNeurobiology

The Iwaniuk lab at the University of Lethbridge is currently seeking applications from students interested in pursuing a MSc or PhD in evolutionary neurobiology. We offer a range of projects that combine field and lab based approaches to understand the evolution of brain

and behaviour in birds and mammals. To enable much of our research, our lab houses one of the largest comparative brain collections in the world with over 170 species represented, offering opportunities in evolutionary neurobiology not available elsewhere. Dedicated lab facilities include: microtomes, cryostat, fluorescent microscope, a high-resolution digital slide scanner, and the latest in stereology and neuron tracing software. Starting in summer 2019, we will be housed in a new science building with additional space to support wet lab activities and data analysis. Field research is supported by a 4x4 field vehicle, a specialized mobile lab trailer for preparing samples and the newly renovated West Castle field station, nestled in the southern tip of the Canadian Rockies. In addition to our fieldwork in western Canada, opportunities are available for students to travel to and collaborate with researchers at other institutions in Canada, USA, Chile and Australia and attend international conferences annually. For additional information on specific projects, please contact: andrew.iwaniuk@uleth.ca

The University of Lethbridge offers competitive scholarship funding, including tuition waivers, for applicants based on grades and research experience. Potential students must have a background in biology, psychology or neuroscience, some research experience (of any kind) and a valid driver's license. No fieldwork experience is required and start dates are flexible. For application deadlines see: https://www.uleth.ca/graduate-studies/
 To apply, send: 1) a c.v.; 2) unofficial copies of academic transcripts; and 3) a brief description of your research interests to: andrew.iwaniuk@uleth.ca. More information about our lab can be found at: http://scholar.ulethbridge.ca/iwaniuk/home . Andrew N. Iwaniuk Associate Professor Canada Research Chair in Comparative Neuroanatomy Canadian Centre for Behavioural Neuroscience University of Lethbridge Lethbridge AB T1K 3M4 Canada ph. +1 403 332 5288 <tel:%2B1%20403%20332%205288> fax +1 403 329 2775 <tel:%2B1%20403%20329%202775> < http://web.me.com/aniwaniuk/Bird_Brains_Lab/-Welcome.html > http://scholar.ulethbridge.ca/-iwaniuk/ Bird-brain (bûrd brãn)1. a person regarded as silly or stupid.

andrew.iwaniuk@uleth.ca

ULiverpool InvasiveBeesInvasiveDisease

Applicants should apply through this website: https://www.findaphd.com/search/-ProjectDetails.aspx?PJID1870 Or via email at: sethb@liv.ac.uk

Best wishes,

Seth

Invasive bees, invasive disease. The ecology and evolution of parasites associated with bumblebees in South America, Japan, and Europe

Project Description Bumblebees are crucial pollinators in both wild and agricultural systems. Bumblebees are also facing widespread declines, in part due to infectious diseases, which challenges the stability of wild floral communities, and the animals that depend on them, and food security. The common European buff-tailed bumblebee (Bombus terrestris) has been successfully commercially reared and is used extensively to pollinate crops around the world. In many of these regions, B. terrestris has established and spread, and local bumblebees have declined. One potential cause of the local declines of bumblebees is the introduction of European diseases.

This studentship will use next-generation sequencing approaches to identify parasites that are associated with native bumblebees in South America and Japan, where B. terrestris is invasive and European parasites can now be found, and European bumblebees, where these parasites may have originated. This program of work will characterize whole communities of parasites associated with a community of hosts and how these have changed with the invasion of European bees. As such, it will represent a step-change in understanding multi-host multi-parasite communities, their interactions, and present clear data about the role of infectious disease in bumblebee declines.

The ideal student for this project would be one who wishes to apply their molecular biology/genomics skills to large-scale ecological problems. This project will suit a student with interests in host-parasite interaction, evolutionary ecology, genetics, bioinformatics, and genomics. Existing skills in any of those areas would be helpful but independence, curiosity, a healthy sense of humor, and a certain amount of grit are usually more

important.

The successful student will have the opportunity to work closely with collaborators in South America and Japan and develop skills in evolutionary ecology, host-parasite interaction, immunology, genomics, transcriptomics, and metagenomics. The Institute of Integrative Biology offers a lively community of researchers to interact with, providing many opportunities for collaboration.

Seth Barribeau Lecturer: Eco-Immunology Evolution, Ecology and Behaviour Institute of Integrative Biology The University of Liverpool Crown Street Liverpool L69 7ZB Tel: 0151 795 8152 www.seth.barribeau.com "Barribeau, Seth" <Seth.Barribeau@liverpool.ac.uk>

ULiverpool MicrobialCommunities

A PhD Studentship is available at the University of Liverpool to work on soil microbial communities.

This project is supervised by Dr Siobhan OBrien (Liverpool) and co-supervised by Prof Steve Paterson (Liverpool) and Prof Mike Brockhurst (Sheffield).

Project Description: Understanding how microbial communities evolve and function is regarded as one of todays greatest challenges. Microbial communities are highly diverse and complex, yet this same complexity makes it extremely challenging to understand how a community might respond and adapt to change. Experiments using simple 2-species communities have shown that species interactions can affect evolutionary responses to the abiotic environment, yet we have little idea about how selection operates within communities in more realistic, natural settings.

In this project, you will test how species interactions in complex microbial communities shape evolutionary responses to environmental change, focusing on agriculturally-relevant soil microbial communities. Soil microbial communities are key drivers of agricultural processes such as nitrogen provisioning, protecting crops from pathogens and heavy metal bioremediation. Hence, understanding how these communities adapt to environmental change is vital. You will perform experimental evolution in real-time with natural microbial soil communities and test the effects of various agricultural stressors such as pesticides, fertilizers and antibiotics on community structure and function.

This project lies at the interface of evolutionary biology, community ecology, microbiology and environmental sciences. The ideal student for this project will be one who wishes to apply their evolution/ecology background to gain novel insights into how microbial communities respond and adapt to change.

The student will be embedded within a supportive and vibrant research community at the Institute of Integrative Biology at the University of Liverpool, and gain skills in experimental evolution, microbial cultivation techniques, sampling natural microbial communities, molecular biology and metagenomics. While existing skills in any of these areas would be helpful, the ability to drive a research project independently, strong interpersonal skills, motivation and curiosity are essential.

PhD students are strongly encouraged to participate in the range of professional development activities offered by the University of Liverpool, and training will be provided in research skills such as scientific writing, critical thinking, reviewing literature, presentation skills and statistical analysis.

Applicants should generally have an upper second or first class degree in biological or life sciences, evolutionary biology, ecology, zoology, microbiology, environmental sciences or any other relevant fields.

Full details on how to apply can be found here: https://www.findaphd.com/search/-ProjectDetails.aspx?PJID1899 Wissenschaftskolleg zu Berlin Institute for Advanced Study Wallotstrasse 19 D-14193 Berlin +4930 89001-332 Fax: -300 mailto: siobhan.o'brien@wiko-berlin.de http://www.wiko-berlin.de "Siobhan E. O'BRIEN" <18ob-si@wiko-berlin.de>

UMainz Germany AntEvolution

PhD position in Behavioural Ecology of ants

Application deadline: December 15th, 2018

We invite applications for a 3-year PhD position (65% TV-L E13) on the role of chemical footprints for interspecific interactions in ants. While walking, ants leave chemical cues on the ground. Other individuals can detect these footprints and re-spond to them ' by avoiding them, approaching them or altering their aggression. Such responses can influence colony fitness, but also competition between colo-nies or species. However, the behavioural, chemical and ecological factors behind these responses, as well as their consequences for intercolonial and interspecific competition are still

largely unknown. The PhD candidate will investigate these questions using behavioural experiments, chemical analyses, and agent-based models. The project links behaviour, chemical ecology and community ecology in empirical and simulation studies.

We are looking for a highly motivated candidate with an MSc degree (or equivalent) in Biology or a related field. The successful applicant should have a strong background in ecology, animal behaviour and/or evolutionary biology. Experience with social insects, statistics and/or programming are advantageous but not required. The working language of the laboratory is English. The University of Mainz aims to in-crease the number of women in science, and applications by women are strongly encouraged. Similarly, qualified candidates with disabilities will be preferred.

The successful applicant will join an international and dynamic scientific environ-ment (see http://-www.bio.uni-mainz.de/zoo/evobio/index_ENG.php for more infor-mation on our research). Mainz is a beautiful city located at the Rhine River with many students and a rich social and cultural life.

If interested, please send an application as a single pdf file containing your CV, a 1-page motivation letter, your previous research activities, BSc and MSc grades, pub-lications (if applicable), and the names and email addresses of two potential refer-ees. Applications should be sent to Dr. Florian Menzel (menzelf@uni-mainz.de) un-til December 15th, 2018. The ideal starting date for the position is March 1st 2019, but is negotiable. Do not hesitate to contact me if you have further questions.

PD Dr. Florian Menzel Institute of Organismic and Molecular Evolution Johannes Gutenberg University of Mainz Hanns-Dieter-Hüsch-Weg 15 55128 Mainz, Germany menzelf@uni-mainz.de http://www.bio.uni-mainz.de/zoo/evobio/73_ENG_HTML.php "Menzel, Dr. Florian" <menzelf@uni-mainz.de>

UMississippi MusselPhylogenetics Microbiome

The Jackson lab (www.colinrjackson.com) and Garrick lab (www.rcgarrick.org) in the Department of Biology at the University of Mississippi are seeking graduate students with interests either in microbial ecology and/or molecular phylogenetics to work on a project funded by a collaborative NSF Dimensions in Biodiversity grant.

The broader goals of the project are to understand geographic scaling of diversity and interactions between microbiomes and their mussel hosts, mussel communities, and the freshwater environments in which they perform critical ecosystem services. Discrete sub-components that could include the following:

- Microbiome: patterns in mussel gut microbiomes by species and biogeography; influence of host genetics in determining mussel microbiome composition; and role of the mussel gut microbiome in host/holobiont function.

- Phylogenetics: development and application of Ultraconserved Element (or similar genomic approaches) to estimate phylogenetic relationships among mussel taxa; species delimitation; molecular dating; phylogenetic analyses of community assembly; and r reconstruction of trait evolution.

Interested students are encouraged to directly contact either Colin Jackson (microbiome, email: cjackson@olemiss.edu) or Ryan Garrick (phylogenetics, email: rgarrick@olemiss.edu) to discuss potential research projects and support. The graduate school application deadline for Department of Biology at the University of Mississippi is 1st February 2019. Information about how to apply is available at www.biology.olemiss.edu/-programs/graduate/application-procedure . Ryan Garrick Department of Biology 508 Shoemaker Hall University of Mississippi University, MS 38677-1848, USA

webpage: http://www.rcgarrick.org   rgarrick@olemiss.edu

Sciences University of Montana Missoula, MT 59812

web: www.fishmanlab.org office: (406) 243-5166, ISB 319 mail: DBS, HS104

lilafishman@gmail.com

UMontana PlantEvolutionaryGenomics

The Fishman Lab (http://www.fishmanlab.org) at the University of Montana (UM) is seeking graduate students (either PhD or MS) interested in using genetic/genomic approaches to understand plant evolution. We study variation at the individual, population, and species levels, primarily using Mimulus (monkeyflowers) as a model system.

Students interested in the genomics of microgeographic adaptation are particularly encouraged to apply, as we have several years of RA support associated with NSF-funded projects on yellow monkeyflower adaptation to thermal areas of Yellowstone National Park. Other research topics in the Fishman lab include the genetic basis of phenological, mating system and life history traits, the origins of hybrid incompatibilities, the role of chromosomal rearrangements in speciation, and the mechanisms and consequences of selfish evolution by centromeres and mitochondria. Outstanding applicants interested in any area of empirical plant evolutionary genomics are welcome.

The Fishman Lab is part of a strong and highly interactive group of evolutionary genomics labs at UM, and is a core lab in an NSF-funded collaborative network focused on the genomics of adaptation (http://www.unveilnetwork.org). PhD applicants from backgrounds traditionally under-represented in STEM fields are eligible for UNVEIL graduate fellowships, and all evolutionary genomics students are eligible for support for cross-institutional travel and training. The Organismal Biology, Ecology & Evolution Program < http://hs.umt.edu/dbs/grad-programs/OBEE/default.php > at UM provides excellent training opportunities for students and unparalleled access to natural areas for both research and recreation. The University of Montana-Missoula is the state university system's liberal arts campus, fostering a rich cultural community, and Missoula is a wonderful place to live and work.

The official OBEE grad program application deadline is Dec. 1st 2018, but somewhat flexible. Please contact Lila Fishman (lila.fishman@mso.umt.edu) directly prior to applying to the OBEE program.

Lila Fishman Associate Professor Organismal Biology, Ecology & Evolution Program Division of Biological

UNottingham AdaptiveRadiationGeometry

Holey hypervolumes! The multivariate geometry of adaptive radiation.

We seek a maths, physics or engineering graduate with an interest in biology, or a biologist with good mathematical skills, for an exciting, international, interdisciplinary, collaborative PhD to investigate multidimensional variation in the shape (phenotype) of fish, and the ecological characteristics of the environments they inhabit. The successful candidate will use large existing datasets to develop cutting-edge analyses of multivariate phenotype distributions, ecological variables and the relationships between them, within a phylogenetic context. The student will receive training in advanced mathematical and statistical methods, and in evolutionary biology, including fieldwork in Scotland, and practical training in quantification of morphological phenotypes. The successful candidate will be based in Nottingham, but will visit Arizona State University, USA.

Many individual properties of environments and organisms ('phenotypes'), such as pH, temperature, colour or size have continuous distributions, which makes it tempting to assume that all possible combinations of environmental and phenotypic variables can occur in the natural world. However variables are commonly intercorrelated: as one changes, so do others, and this can mean that certain combinations are rare or missing when plotted in multidimensional spaces ('hypervolumes'). The existence of discontinuities ('holes') in environmental or phenotypic hypervolumes are relevant to thinking about e.g. niche structure, the evolution of biodiversity and transitions between environmental states. They could be important for our understanding of the consequences of environmental change and organisms' abilities to respond to it.

Until very recently the detection of holes in multivariate space has not been possible, but Ben Blonder, an assistant professor at Arizona State University, and a project collaborator, has recently developed a method to do so (2016, American Naturalist). This project will

use his method, and others, to develop novel mathematical analyses of existing data describing multivariate variation in three spined stickleback fish and their environments, as they adapt to those environments during adaptive radiations (the differentiation of an ancestral species into divergent new populations or species). We aim to address three simple, but novel questions, and to then develop further analyses: (a) Are there holes in multivariate phenotypic distributions? Their existence would suggest constraints on the filling of phenotypic space. (b) What constraints might be responsible for phenotypic holes? They might coincide with environmental or genetic discontinuities. (c) Do holes represent phylogenetic constraints or opportunities? Holes could represent 'the road not taken' in a taxon's evolutionary history, but could also represent evolutionary opportunity in the taxon's future.

The project will be based in the MacColl lab, http://ecology.nottingham.ac.uk/AndrewMacColl/index.php, a friendly, dynamic and well-funded group, embedded in a wider cohesive group of ecologists and evolutionary biologists http://ecology.nottingham.ac.uk/index.html . Competitive funding for UK students is available through the NERC Envision DTP http://www.envision-dtp.org/ . Applicants should have an interest in evolutionary biology and/or ecology and a STRONG NUMERICAL/MATHEMATICAL background. Applicants should hold a minimum of a UK Honours degree at 2.1 or equivalent in a STEM subject (science, technology, engineering, maths). Candidates with additional (e.g. Masters) qualifications will be looked on favourably.

For more information please contact Andrew MacColl (andrew.maccoll@nottingham.ac.uk)

Associate Professor of Evolutionary Ecology School of Life Sciences University of Nottingham University Park Nottingham NG7 2RD, U.K. Tel: +44 115 951 3410 http://ecology.nottingham.ac.uk/AndrewMacColl/index.php Andrew Maccoll <Andrew.Maccoll@nottingham.ac.uk>

UNottingham GeneticsEvolution

Two BBSRC-funded four year studentships at the University of Nottingham, open to UK and EU students.

Project 1) the genomic basis of chiral variation in mirror-image snails

Project 2) developing germline transgenesis methods in snails.

Both UK and EU students eligible, closing date Tue 11th Dec 2018, fully funded for four years. Email me for further info angus.davison@nottingham.ac.uk. Apply here https://www.nottingham.ac.uk/bbdtp/ 1) How are snails able to routinely make mirror-image shells and bodies, unlike any other animal group? In previous work, we identified a gene in pond snails which determines variation in asymmetry, but the mutation means that only about half of embryos develop to hatching. In other snails, especially those in Japan and Hawaii, mirror image versions are common and equally fit. In this project, the student will use genomic methods (RAD-seq and/or nanopore) to identify the genes associated with chiral variation in these other snails, with a long term aim of understanding why such variation is not possible in other animals, including ourselves.

Project would suit student into some combination of genomics/evolution/development/bioinformatics. Field work in Japan/Hawaii a likely option, if desired.

2) Slugs as pests destroy and spoil crop plants and cost the farming industry at least £100M a year in the UK, incurring the widespread use of toxic molluscicides. Slugs and snails are also vectors of important pathogens (e.g. schistosomes). Unfortunately, very little is known about the genetics and molecular biology of gastropod molluscs, and as a consequence, we are unable to bring modern methods to bear upon the control of problem species. Therefore, the specific aim of this PhD is to develop a straightforward and robust method to deliver transgenic vector constructs into the snail germline, with a long term view of using the method to devise methods for control of crop pests and snail vectors of disease. Taking advantage of progress made in the rotation, the student will formulate, develop and them optimise methods for accessing and then culturing snail embryos. He/she will then work with others towards the goal of stable transgenesis of snails.

The project would suit student into molecular biology

and also possibly micromanipulation.

Both projects will involve an initial training/rotation in three diverse labs. Students then select one for their PhD project. Note that you do not necessarily have to have a masters level qualification to gain entry to a PhD course

Previous BBSRC-funded students of the lab are co-authors on these papers:

https://www.cell.com/current-biology/fulltext/S0960-9822(16)00056-7   https://onlinelibrary.wiley.com/-doi/full/10.1002/evl3.31   Science communication is also an important part of our work e.g.   https://-www.bbc.co.uk/news/science-environment-46046024, https://www.nytimes.com/2017/10/12/science/jeremy-lefty-snail.html   Dr Angus Davison | Reader and Associate Professor in Evolutionary Genetics School of Life Sciences | University Park | University of Nottingham | NG7 2RD +44 (0) 115 8230322 | angus.davison@nottingham.uk | @angus_davison | angus.davison.org

Angus Davison <Angus.Davison@nottingham.ac.uk>

UNottingham SpeciationMitonuclearConflict

Competitively funded PhD position Mitonuclear Conflict and Speciation in Stickleback

The successful applicant for this multidisciplinary, international project will combine cutting-edge bioinformatics and physiological assays of mitochondrial function with traditional genetic analysis, behavioural experiments and fieldwork to assess the contribution of mitochondrial dysfunction to speciation in an evolutionary model species, the three-spined stickleback. Ecological fieldwork will take place in the Scottish Outer Hebrides, and there will be opportunities for visits to collaborating labs in Germany and Canada.

Mitochondria, the "powerhouse" of all eukaryotic cells, are intimately involved in many cellular processes. "Co-adapted gene complexes" comprised of both nuclear and mitochondrial genes must work closely together in the production of energy by oxidative phosphorylation (oxphos) and other processes. The breakdown of this essential biochemical cooperation results in organismal dysfunction including many human diseases. Dysfunction may arise when populations come into secondary contact following divergence, and untested combinations of mitochondrial and nuclear genes must work together. This has stimulated a novel hypothesis for the process of speciation, Darwin's "mystery of mysteries". Any breakdown of nuclear-mitochondrial coadaptation following hybridisation between divergent taxa may be a common cause of reproductive isolation (the inability of individuals from different populations to successfully mate with each other). Thus far, this idea has been examined in only a handful of organisms, and only once in vertebrates. This studentship will investigate the contribution of mitonuclear conflict to speciation in stickleback, a small fish with excellent genomic resources.

Three-spined stickleback have repeatedly colonised freshwater from the sea. The contrasting energetic and osmotic demands of marine and freshwater environments exert strong selection on genes involved in oxphos pathways, potentially favouring strong selection on nuclear-mitochondrial coadaptation. On the Scottish island of North Uist there are hybrid zones between marine and freshwater stickleback populations that originate from distinct mitochondrial clades that are ~120,000 years diverged. Hybridisation in these contact zones is strongly asymmetric, with freshwater mtDNA introgressing into marine fish, but not vice versa. This is strongly suggestive of mitonuclear conflict contributing to speciation in these fish.

Training rotations for this project will allow students to learn skills directly relevant to the project, with substantial components of wet lab molecular genetics, physiology and bioinformatics.

The project will be based in the MacColl lab, http://-ecology.nottingham.ac.uk/AndrewMacColl/index.php, a friendly, dynamic and well-funded group, embedded in a wider cohesive group of ecologists and evolutionary biologists http://ecology.nottingham.ac.uk/index.html. Funding for UK/EU students may be available through the University of Nottingham BBSRC DTP https://www.nottingham.ac.uk/bbdtp/   https://-www.nottingham.ac.uk/bbdtp/available-projects/-molecules-cells-and-organisms-2019/life-sciences-2019/the-genomic-basis-of-speciation-mitonuclear-conflict-and-speciation-in-stickleback..aspx   For more information please contact Andrew MacColl (andrew.maccoll@nottingham.ac.uk)

Associate Professor of Evolutionary Ecology School of Life Sciences University of Nottingham University Park Nottingham NG7 2RD, U.K. Tel: +44 115 951 3410 http://ecology.nottingham.ac.uk/-AndrewMacColl/index.php   Andrew Maccoll <Andrew.Maccoll@nottingham.ac.uk>

UOklahoma InsectComparativePhylogeography

I am currently seeking graduate students interested in comparative phylogeography and evolutionary ecology to join my lab at the University of Oklahoma Department of Biology! Using New Zealand as a model system, we will investigate how the dynamic geological and climatic history of this ancient archipelago has shaped patterns of genetic, genomic and species diversity within the insect communities of the temperate forest ecosystems. This is part of a longer-term study of the eco-evolutionary dynamics which govern the distribution of genetic diversity and assemblage composition across complex landscapes. Pending acceptance into the OU Department of Biology graduate program, some RA funding is available for this work.

Students with experience and interests in population genetic/genomic methods, ecological modelling, biogeography, and/or insect-based fieldwork and identification are particularly encouraged to apply; however, the ability to conduct field work is not required for graduate research in my lab. I strive to create an open, diverse and inclusive research environment, and applications which indicate a high level of curiosity, creativity and collaborative potential are most likely to be successful. Please note that the Department of Biology application deadline is December 15!!

You can find more information on our research, lab group and recent publications at https://kamarske.org/ !

Katharine Marske

Assistant Professor

Department of Biology

University of Oklahoma

kamarske@ou.edu

kamarske.org

"Marske, Katharine" <kamarske@ou.edu>

UOregon MicrobialMarcoevolution

CALL FOR GRAD STUDENTS STUDYING THE ECOLOGY AND EVOLUTION OF MICROBIAL METABOLISM

The Louca Lab at the University of Oregon, Eugene, USA, is seeking PhD students to work on the ecology of microbial (prokaryotic) metabolism, its interaction with large-scale biogeochemical fluxes and/or its role in microbial macroevolution, using any combination of mathematical modeling, bioinformatics, microcosm experiments and/or field surveys.

Potential topics include: - The statistical properties of global prokaryotic genomic diversity - Gene-level and genome-level processes of prokaryotic macroevolution - Development and validation of pathway-centric ecological/biogeochemical models - The role of genomic structure in the dynamics and evolution of microbial metabolic networks - Experimental and mathematical characterization of microbial system kinetics - Development of efficient phylogenetic and phylogenomic computational tools for analyzing global prokaryotic diversification processes - Estimating global prokaryotic phylogenetic/phenotypic diversity through deep time - Coevolution of microbial diversity with large-scale geological transitions

Skilled prospective PhD students from a wide range of related disciplines, such as biology, physics, environmental studies or computer science, interested in microbial ecology and evolution, are encouraged to consider joining the Louca lab. Experience in programming (any language), bioinformatics (especially genomics and metagenomics), mathematical modeling and/or molecular biology are strong assets but not absolute requirements. The most important skills are creativity, attention to clear deductive reasoning, as well as a strong motivation to learn and to solve problems.

Additional information is available at: www.loucalab.com Interested students are encouraged to directly contact the lab's principal investigator, Stilianos Louca < http://www.loucalab.com/lib/php/-index.php?section=People >, to discuss potential research projects and application logistics. The 2018 application deadline for the University of Oregon Department of Biology graduate program is December 1st.

Stilianos Louca, Asst. Professor Department of Biology Institute of Ecology and Evolution University of Oregon, Eugene www.LoucaLab.com Stilianos Louca <louca@zoology.ubc.ca>

URV IRTA Spain DiatomMetaBarcoding

PhD student position in the application of high-throughput sequencing DNA tools (metabarcoding) in aquatic ecology, announced jointly by the Centre for Climate Change (C3) at the University Rovira i Virgili (URV) and the Marine and Continental Waters Program of the Institute for Food and Agricultural Research Technology (IRTA) in Sant Carles de la Rpita (Spain).

Ref of the PhD position: 2018PMF-PIPF-22

Topic: Diatom metabarcoding: developing new tools for bioassessment of aquatic ecosystems

Project description: Aquatic ecosystems are essential to planetary function and to humans and hence their protection and restoration are of vital importance. The Water Framework Directive and Marine Strategy Framework Directive were adopted by the EU more than 10 years ago to ensure good functioning of water bodies in terms of biological communities and hydrological and chemical characteristics. Diatoms and plankton are among the principal biological indicators used to monitor waters for these directives and, until now, they have been assessed through microscope-based assessments of communities. This thesis project aims to develop innovative alternatives to microscope-based assessments, using high-throughput sequencing (HTS) and DNA metabarcoding. This will include (1) understanding how methodological and biological parameters affect the relationship between DNA reads (from HTS) and cell numbers, (2) developing DNA reference databases, (3) developing appropriate bioinformatics pipelines for converting HTS reads into ecological assessments, and (4) refining knowledge about the relationship between species occurrences and ecological factors in particular critical cases (to test current assumptions about species ecology). To do this, the candidate will assemble and use matched sets of HTS data, microscope-based diatom counts, and physico-chemical data. As well as providing the basis for new biomonitoring systems, the project may provide novel data on the biogeography of microalgae and protists, touching on general questions of dispersal and differentiation in populations of microscopic organisms. Initially, the focus will be on diatom biomonitoring of Catalan rivers, but the project may extend into coastal habitats and include the opportunity to develop new methods of detecting pathogenic or toxic species and to analyse the hidden diversity of previously unrecognized or unidentifiable organisms.

Requirements: The candidate must have a degree in biology or related disciplines. Preference will be given to candidates familiar with bioinformatics tools for the analysis of DNA sequence data or practical experience in molecular techniques such as DNA extraction, PCR and DNA sequencing. Good analytical skills will be an advantage, and some knowledge of algae, including diatoms, would be helpful though not essential. Knowledge of R would also be an asset. Good communication skills in written and spoken English are necessary. Applicants should note that the research activities will take place at the IRTA centre in Sant Carles de la Rpita (under the supervision of Dr. Rosa Trobajo and Dr. David G. Mann) but that the PhD student will work in close collaboration with other labs working on similar projects, both in Spain and internationally.

We offer: 3-year contract within URV

Foreseen starting date: End January 2019

Details of the call: http://www.urv.cat/en/research/-support/programmes/urv/programa-marti-franques/-pipf/2018-1/ In "Conditions of the competition" the regulatory bases of the program are given. In "List of grants offered± all the scholarships offered in this call are listed and, the reference of the PhD on diatom metabarcoding is 2018PMF-PIPF-22. In "Application form" is where you can apply.

Details of the qualifications and documentation required can be found at: https://www.sgr.urv.cat/cgi-bin/-programes/application/detall.cgi?conv=2018PMF-PIPF-&ordre"&idioma=ENG Note that In addition to the documentation listed there, candidates should also include a letter of intent/motivation

Deadline for application: 28th November 2018

For any doubt or further information, please contact:

Rosa Trobajo (rosa.trobajo@irta.cat) IRTA-Aquatic Ecosystems Ctra Poble Nou Km 5.5 43540 Sant Carles de la Rpita, Catalonia, Spain

Or

Javier Sigr (javier.sigro@urv.cat) Centre for Climate Change (C3), Dept of Geography, University Rovira i Virgili (Tarragona) Avda Catalunya 35 43071 Tarragona, Catalonia, Spain

xavier.benito.granell@gmail.com

USunshineCoast HumanGenomics

Human Genomics PhD Scholarship at the University of the Sunshine Coast, Australia

Humans migrated out-of-Africa over 60,000 years ago and spread to different parts of the globe. In this process human population was subsampled serially along the routes of the migration. This project will investigate the footprints of migrations manifested in the frequencies and patterns of genetic variations in human populations.

The main research foci of our group include the effects of genetic drift in modulating mutation and selection, quantifying mutational load, investigating the rates and patterns of mutations, estimating divergence times between species and populations and ancient genomics. We work on a number of species including humans and other mammals, birds and oysters.

The current project focuses on a) investigating genetic relationships and gene flow between global human populations. b) estimating the mutational load in humans c) understanding the unique patterns of genetic variations in different human populations. All the above objectives will need to be examined in the context of human migrations out of Africa.

This project involves collecting samples for whole genome sequencing and performing a series of bioinformatic analyses to process raw sequence data. The processed data will need to be analysed using a range of methods in population genomics and evolutionary biology to answer the questions related to objectives mentioned above.

The project provides an opportunity to work and acquire knowledge in inter-disciplinary sciences such as molecular biology, genetics, computer science and statistics.

SELECTION CRITERIA:

Academic qualifications - An honours or master's degree in biological, physical or computational sciences is highly preferred; however, persons with a non-biology degree should have some basic understanding of genetics, evolution and molecular biology

Record of research publications

Professional research experience

Additional desirable selection criteria: Scripting (Perl/Python) Familiarity with Unix/Linux systems Experience in using High Performing Clusters Knowledge about software and tools used in next generation sequence data analyses Previous research experience in Bioinformatics

Number of scholarships: 2 Stipend: $27,082. If the successful recipient is an International student, tuition fees and Overseas Student Health Cover (single cover) will be included in the scholarship.

Standard duration of the program: 3 years

For more information contact Dr Sankar Subramanian: ssankara@usc.edu

https://www.usc.edu.au/learn/what-will-i-pay/-scholarships/research-scholarships/human-genomics-phd-scholarship Regards

Sankar Sankar Subramanian USC Senior Research Fellow I1.11A GeneCology Research Centre University of the Sunshine Coast Ph: 61754302873 Email: ssankara@usc.edu.au

Sankar Subramanian <ssankara@usc.edu.au>

USwansea SocialEvolution

There are several funded PhD opportunities available at the moment to work with me (Dr Hazel Nichols) at the Universties of Swansea and/or Bielefeld.

First, I am looking for students with excellent CVs (first class degree and/or distinction at Masters level, plus relevent experience) to apply for a doctoral scholarship at Swansea University https://www.swansea.ac.uk/-postgraduate/scholarships/research/swansea-university-research-excellence-scholarships-phd-2019.php .The topic of the PhD is flexible so this is a great opportunity to design your own project! I can provide opportunities investigating topics such as scent communication, inbreeding, mating/social systems, cooperation and conservation genetics in a variety of species (e.g. banded mongooses, meerkats, mole-rats, hedgehogs, pilot whales, social spiders and scorpions). Take a look at my website https://hazelnichols.weebly.com/ for further details. Deadline 4th January but contact me well in advance of this.

If you're interested, send me an email (h.j.nichols@swansea.ac.uk), sending me your CV, and we can discuss ideas.

Second, along with Dr Jamie Winternitz, we are advertising for a PhD studentship in scent communication in wild banded mongooses (see http://evol.mcmaster.ca/ ˜ brian/evoldir/-GradStudentPositions/BielefeldU.BehavEvolEcol). The student will investigate genetic mechanisms behind scent communication, including the involvement of the MHC and microbiome. There will be the opportunity for both field work in Uganda and lab work in Germany. Deadline 15th December.

Best wishes,

Hazel

"Nichols H.J." <h.j.nichols@swansea.ac.uk>

UTexas Austin EvolutionCognition

The Muth Lab at the University of Texas at Austin is seeking motivated students wishing to pursue Masters or PhD degrees in the Ecology, Evolution and Behavior grad program, starting Fall 2019. My lab will be starting in August 2019 and I work on broad questions in animal behavior and cognition, using bumblebees. Potential students are expected to have taken an animal behavior course as an undergraduate, or have research experience in animal behavior or cognition (experience working with bees is not necessary). The majority of grad student research is expected to be lab- and greenhouse-based but there is also the opportunity for fieldwork. Students will be expected to develop their own projects within the framework of general lab interests. Support will be provided by a combination of research and teaching assistantships, which cover tuition and salary (including summer salary).

The Department of Integrative Biology < https://-integrativebio.utexas.edu/ > and EEB grad program are top-ranked < https://www.usnews.com/best-graduate-schools/top-science-schools/ecology-rankings >, with particular strengths in animal behaviour, evolution and ecology. To find out more about the EEB grad program, see: https://cns.utexas.edu/eeb-graduate-program To find more about me and the lab, see www.beecognition.com Please contact Dr. Felicity Muth (email address on website) to start a conversation. Please include your CV, research interests, and contact information for two references.

Formal applications will be submitted through the UT Austin Ecology, Evolution, and Behavior graduate pro-grams, after having contacted me. Applications are due December 1, 2018.

Felicity Muth, PhD Department of Biology, University of Nevada, Reno. +15206123801 < http://-felicitymuth.weebly.com/ >

< http://blogs.scientificamerican.com/not-bad-science/ > Currently recruiting: https://-www.beecognition.com/join-the-lab/ fmuth@unr.edu

UTexas EvolutionaryGenomics

The Havird Lab at the University of Texas at Austin is looking for enthusiastic and motivated PhD students beginning in the Fall 2019 semester. Students will have the opportunity to develop independent dissertation projects that complement research themes in the lab on molecular evolution, cytonuclear interactions, and environmental physiology. Ongoing projects in the lab examine coevolution between mitochondrial and nuclear genomes, the roles of cytoplasmic genomes at species boundaries, and ecophysiology/environmental adaptation (http://-/jchavird.wixsite.com/jchavird/currentresearch). Multiple organismal systems are used in the lab, including plants and animals, as well as making use of existing publicly available genomic datasets. Students in the Havird Lab are expected to develop both wet lab and bioinformatic skill sets.

The lab is part of the growing Ecology, Evolution, and Behavior (EEB) group in the Integrative Biology Department at the University of Texas. Interested students should contact Justin Havird (jhavird@utexas.edu) and provide a brief description of your research interests along with a current CV. Applicants are encouraged to consider applying for outside funding opportunities (e.g., the NSF predoctoral fellowship). Applicants can apply through the EEB, Plant Biology, or Cell and Molecular Biology (via rotations) Graduate Programs at UT following the links below.

Applications received before December 1st, 2018 will be given full consideration.

Additional information:

Havird Lab: http://jchavird.wixsite.com/jchavird/ Integrative Biology Dept. at UT: https://-integrativebio.utexas.edu/ EEB Graduate Program at UT: https://cns.utexas.edu/eeb-graduate-program CMB Graduate Program at UT: https:/-

/icmb.utexas.edu/cmb   Plant Biology Graduate Program at UT: https://cns.utexas.edu/plantbio-graduate-program   Reasons to move to Austin: https://theculturetrip.com/north-america/usa/texas/-articles/10-reasons-everyone-is-moving-to-austin/ Justin C. Havird Department of Integrative Biology The University of Texas at Austin

jhavird@utexas.edu

UToronto EcologyEvolutionGenetics

The Department of Ecology & Evolutionary Biology (EEB) at the University of Toronto is currently recruiting graduate students to begin in May 2019, Sept. 2019, or Jan. 2020. We will be accepting domestic and international PhD students, and domestic MSc students. — PhD students starting with a BSc have guaranteed funding for 5 years, including a tuition waiver.

Our graduate students conduct research in both field and lab settings on a variety of organisms, and using a variety of approaches including genomics, bioinformatics, experimentation, modelling and theory. Our department has outstanding faculty with research strengths in several areas including: - — — — — — — — — — — — Evolutionary genetics - — — — — — — — — — — Population, community, and landscape ecology, including global change ecology - — — — — — — — — — — Mating systems and life history evolution - — — — — — — — — — Conservation and biodiversity - — — — —Paleobiology - — — — —Disease ecology and evolution

Interested students should consult the full list of EEB faculty and research topics to identify a prospective supervisor(s): http://www.eeb.utoronto.ca/research/-areas.htm   Application Instructions: — Prospective applicants should first contact one or more potential faculty advisors (or co-advisors) and consult the additional application details about EEB admissions on the departmental website: http://www.eeb.utoronto.ca/-grad/prosp.htm If one or more professors indicate that they may be willing to support them and their research, —applicants should complete the School of Graduate Studies' online application.

EEB's graduate students actively engage in all aspects of our community of scholars, including reading/discussion groups, seminars, professional development workshops (e.g., R/Python coding, writing and scientific communication, academic soft skills, career options) and social events (e.g., Darwin Day celebrations, Atwood Collo-quium, New Student Welcome and retreat to our field station at the Koffler Scientific Reserve, celebratory Grad Student Appreciation dinner).

The University of Toronto is a leading academic institution in Canada and the world, and our department has with over 60 faculty members, located on three campuses, specializing in ecology and evolution. — EEB enjoys strong links with the Royal Ontario Museum, the Centre for Global Change Science, and the School of the Environment. The EEB-affiliated Koffler Scientific Reserve field station is dedicated to ecological and evolutionary research (www.ksr.utoronto.ca < http://www.ksr.utoronto.ca >). EEB also partners with the Ontario Ministry of Natural Resources for access to lab facilities in Algonquin Provincial Park (www.harkness.ca) and to long-term data sets. Genomics is supported by several high-performance computing resources including SciNet (www.scinethpc.ca < http://www.scinethpc.ca >), bioinformaticians, as well as staff in the Centre for the Analysis of Genome Evolution and Function.

Toronto is a vibrant and cosmopolitan city, one of the most desirable in the world in which to live and study.

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from racialized persons / persons of colour, women, Indigenous /Aboriginal People of North America, persons with disabilities, LGBTQ persons, and others who may contribute to the further diversification of ideas.

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Asher D. Cutter Professor, Department of Ecology and Evolutionary Biology University of Toronto 25 Willcocks St. Toronto, ON, M5S 3B2

tel: 416-978-4602 email: asher.cutter@utoronto.ca http://labs.eeb.utoronto.ca/cutter asher.cutter@utoronto.ca

Best wishes,

Pau

Dr. Pau Carazo Ramn y Cajal Fellow Instituto Cavanilles of Biodiversity and Evolutionary Biology University of Valencia Tel: +34 963544051 http://-paucarazo.com Pau Carazo <pau.carazo@uv.es>

UValencia EvolutionOfSexualConflict

PhD Student- The role of ecology in the evolution of sexual conflict What do we offer? We offer a PhD position starting on December 2018-January 2019.

To do what? We are looking for a PhD student interested in studying the evolutionary factors modulating the intensity of male-male competition and sexual conflict, and its consequences in terms of population viability. Strong sexual selection can improve population viability and evolvability through a number of processes, such as genic capture. However, strong sexual selection will also often give rise to sexual conflict and female harm, which does not only tend to deviate females from their evolutionary optima, but can drastically affect population viability, leading to a ^{o}reproductive tragedy of the commons±. We are still far from understanding what factors modulate the evolution of female harm levels, and sexual conflict at large, and how this feeds back into population viability. Our on-going research aims to contribute to fill these gaps in knowledge by investigating factors potentially modulating the evolution of sexual conflict. This PhD will explore the role of different ecological and demographic factors (e.g. temperature, population density and structure) affect male-male competition levels and the potential for sexual conflict, mainly in Drosophila melanogaster. The research project involves behavioural experiments in the lab, experimental evolution, and considerable fieldwork in Spain, the USA and Australia.

Funding We offer funding for 3 yrs, but applicants will be expected to apply for independent PhD fellowships. Where? The student will be supervised by Dr. Pau Carazo, and based at the Behaviour and Evolution group of the Ethology Lab, at the Cavanilles institute of Biodiversity and Evolutionary Biology (University of Valencia, Spain). For information about our group visit our website (http://paucarazo.com).

Who? We are looking for a motivated, enthusiastic, hard-working candidate with some background (and a strong interest) in sexual selection, and evolutionary biology and animal behaviour at large.

Contact For further information and expressions of interest, please contact Pau Carazo (University of Valencia; pau.carazo@uv.es). The deadline for applications is the 10th November.

UYork 4 LeishmaniaPopGenetics

The University of York (UK) is now welcoming applications for a four year PhD position in the population genomics of the parasite Leishmania infantum.

The project links parasitology expertise at York, with medics in Brazil and population genomics experts in York and Sheffield. Deadline: Monday, January 07, 2019 Location: York (UK) and Brazil. Restrictions: The funder requires UK/EU citizenship.

More detail: https://www.findaphd.com/search/-ProjectDetails.aspx?PJID2576 Applying genomic surveillance to understand Leishmania infantum virulence in Brazil.

Leishmania infantum is a globally-distributed parasite that is transmitted via sand flies. Leishmania infantum and the related Leishmania donovani cause 20,000-30,000 deaths per year, mainly in Brazil, India, and Africa. This project will use cutting edge genome sequencing and population genomics methods to uncover mechanisms of drug resistance. This knowledge will be applied to rapid genomic typing of parasites in Brazil, enhancing treatments.

The project will start by describing the complex landscape of Leishmania populations in Brazil. You will uncover new aspects of the history of the parasite by analysing L. infantum and L. donovani genome data from hundreds of clinical isolates from Brazil, India and Israel. This exploration will form the background genetic landscape to inform the reminder of the project. You will then learn how to apply genome wide association studies (GWAS) to detect genetic changes that affect drug resistance and/or parasite virulence. Tests for evolutionary change will be used detect new genetic changes that are sweeping through the population, spreading drug resistance. Genetic changes that are particularly striking will be examined using CRISPR-Cas9 genome editing, to uncover the mechanistic details underlying the genetics.

Finally, you will develop methods for extremely rapid genome sequencing that can be performed on-site in Brazil. You will first develop an application of Oxford Nanopore Technology to collect genome data from Leishmania infantum isolates and identify the genetic alterations in the genome. This will allow us to use our genomic knowledge (from GWAS, CRISPR and selection tests) to characterise drug resistant or virulent strains while the patient is still in treatment. You will then apply this rapid genomic diagnostics in Brazil. This approach has real potential to save lives.

The project will be supervised by Daniel Jeffares (University of York), with Kai Zeng (University of Sheffield, population genetics), and Jeremy Mottram (University of York, Leishmania biology), with researcher/medical collaborators in Brazil. The student will learn cutting edge genomic methods, population genomics, CRISPR-Cas9 genome editing and will spend time in Brazil developing rapid, on-site genome sequencing.

Find out more about us:

Daniel Jeffares https://jeffareslab.org/ Jeremy Mottram http://www.mottramlab.org/ Kai Zeng http://zeng-lab.group.shef.ac.uk/wordpress/ Daniel Jeffares <daniel.jeffares@york.ac.uk>

UZurich
TransposableElementEvolution

LINKING ENVIRONMENTAL STRESS TO TRANSPOSABLE ELEMENT ACTIVITY

We are offering a four year PhD position at the Department of Plant and Microbial Biology, University of Zurich under the supervision of Prof. Anne Roulin and Dr. Michael Thieme (for more on the group: https://www.botinst.uzh.ch/en/research/evogenomics/roulin.html).

Background Transposable elements are mobile DNA sequences that constitute the main component of most eukaryotic genomes. TEs are also functionally important as they can lead to the creation of alternative or new promoters, the rewiring of regulatory networks and the alteration of epigenetic landscapes. While their mobility is normally restricted by a sophisticated silencing machinery implemented by their hosts, external stresses, however, can lead to their mobilization and induce stable transgenerational genetic changes. TEs may thus be especially prone to produce the raw diversity necessary

for individuals to respond and adapt quickly to new or changing environmental conditions. Hence, the stress-induced mobilization of TEs is increasingly seen as one of the major drivers of phenotypic diversity and plant evolution.

Aims of the project We have previously developed a method to circumvent the strict epigenetic regulation of TEs in plants. This allowed us for the first time to study the effects of stress-induced transposition events in Arabidopsis thaliana. We were able to show that the stress-induced mobilization of a heat responsive TE indeed caused a broad panel of phenotypes and an altered response to environmental cues such as day length. Using the same approach, your PhD project will aim at studying the mechanisms of TE-mobility in the model plant Brachypodium distachyon. By tracking TEs in various accessions from different habitats, we want to observe and understand TE-mediated evolution in real-time. These findings will make a major contribution towards the understanding of the adaptive potential of TEs and will have direct implications for the use of TEs in plant breeding programs, as B. distachyon is closely related to major crops.

You are ... ??? interested in plant (epi)genetics/physiology/ecology/evolution and willing to develop skills in molecular biology and bioinformatics. You will be encouraged to come up with your own ideas and creativity in order to shape your PhD project according to your interests. The successful candidate must hold a master degree in biology (or in a related field).

How to apply ? Send a PDF file including a cover letter, a CV, and contact information of 2 referees to anne.roulin@botinst.uzh.ch AND michael.thieme@botinst.uzh.ch before 31.12.18. For more information or to visit the lab, don???t hesitate to contact us.

anne.roulin@botinst.uzh.ch

WashingtonStateU
EvolutionaryBiology

Graduate school research opportunities in Ecology and Evolutionary Biology

The School of Biological Sciences at Washington State University invites motivated applicants for graduate training and research in ecology & evolutionary biology.

Research opportunities in both plant and animal systems are diverse. Research focus areas include disease and community ecology, ecosystem ecology, evolutionary genetics, ecological and evolutionary physiology, genomics, evolutionary theory, and phylogenetics and systematics. Our faculty and a brief description of research interests:

Jesse Brunner: Disease ecology

Jeremiah Busch: Population genetics, plant evolution

Patrick Carter: Quantitative genetics, animal physiology

Omar Cornejo: Genomics, host-pathogen evolution

Erica Crespi: Animal developmental physiology

Wes Dowd: Animal evolutionary physiology

Mark Dybdahl: Evolutionary ecology, adaptation, phenotypic plasticity

Dave Evans: Ecosystem ecology and nutrient cycling

Richard Gomulkiewicz: Evolutionary genetics and theory

Joanna Kelley: Genomics, adaptation to extreme environments

Eric Roalson: Plant phylogenetics and systematics

Elissa Schwartz: Disease dynamics and virus-host interactions

Andrew Storfer: Landscape genomics, disease evolution

Heather Watts: Animal behavior and physiology

For more information, please visit their websites, available via sbs.wsu.edu

Our graduate training program offers many opportunities for excellence. Every SBS student is fully funded with generous stipends through teaching or research assistantships, accompanying tuition waivers, and health benefits. Plus, SBS endowments provide over $100,000 per year in student awards to facilitate research, training, and professional travel. PhDs receive up to $10,000 in guaranteed support for research-related travel and MS students receive up to $5,000 in guaranteed support. The campus houses outstanding facilities, including plant and animal growth chambers, managed field sites, a modern genomics core and a campus-wide computer cluster.

Washington State University is located in Pullman, WA, a friendly mid-sized town on the rolling hills of the unique Palouse region in eastern Washington. The campus is only eight miles from the University of Idaho in Moscow, ID. The two towns and campuses provide an academically and culturally rich community. The area offers great parks, bike paths, restaurants, farmer's markets and unbeatable opportunities for recreation in the adjacent mountains, rivers, and wilderness.

For more information regarding the Graduate School applications at WSU, see: gradschool.wsu.edu

If you have any questions regarding the application process, please

contact:

Ms. Audrey Van Nuland (sbs.gradstudies@wsu.edu)

The deadline for application of prospective students is January 10,

2019, but students are encouraged to apply anytime.

"Dybdahl, Mark" <dybdahl@wsu.edu>

WesternKentuckyU EvolutionaryColdPhysiology

The Bilyk Lab at Western Kentucky University is recruiting MS students to start in the Fall 2019 semester. We work at the interface of physiology and evolutionary biology to understand how the biology of animals has been reshaped by extreme environments. We address this question using a combination of organismal physiology, functional biochemistry, genomics, and bioinformatics. Our current work focuses on a variety of animals that have been "stuck in the cold," investigating the biological challenges of living at freezing temperatures, the mechanisms through which these are surmounted, and the physiological impacts of evolving in constant cold.

If you are interested, please contact Dr. Kevin Bilyk (Kevin.Bilyk@wku.edu). Formal application and acceptance to the MS program at Western Kentucky University is required and qualified candidates can receive two years of TA stipend, a tuition waiver, and contributions towards health insurance benefits.

Dr.   Kevin Bilyk Western Kentucky University Kevin.Bilyk@wku.edu

"Bilyk, Kevin" <kevin.bilyk@wku.edu>

WesternMichiganU 2 FishGenomics

Heading Link: FishMigrationMacroevolution

The Bloom Lab is seeking up to two creative and enthusiastic MS or PhD students for the fall of 2019. Dr. Devin Blooms lab (https://devinbloom.wordpress.com/) is located in Kalamazoo, Michigan at Western Michigan University. Research in my lab focuses on the systematics and macroevolution of various fish groups. We utilize genomics, natural history museums, and fieldwork to better understand the processes that generate patterns of diversity in fishes.

There are several potential projects available that broadly focus on the macroevolution of Clupeiformes (herrings, shads, and anchovies). Projects include the evolution of diadromy (migration), focusing on phenotypic diversification dynamics and traits associated with migration, and adaptive radiation of various clades within this widespread group of fishes. Our lab relies heavily on phylogenetic comparative methods, and students on these projects will gain experience with

macroevolutionary modeling, and generating and utilizing phylogenies. Funding is available for fieldwork and visits to natural history museums. There are opportunities for collaboration with project personnel from University of Toronto and Virginia Institute of Marine Science.

Support will be provided by a combination of research and teaching assistantships, which cover tuition and salary (including summer salary).

WMU is located in Kalamazoo, Michigan, one-hour east of Lake Michigan, and two hours from both Chicago and Detroit. Kalamazoo is a charming and fun college town that supports a vibrant arts/theater/music community, with numerous outdoor activities (hiking, trail running, biking and more!), restaurants, and is widely known for exceptional and numerous microbreweries.

Please feel free to email Dr. Devin Bloom (devin.bloom@wmich.edu) with any questions about the position, project, and area. Interested applicants should submit a CV, letter of research interests, unofficial transcripts, and contact information for up to three references. GRE scores are not required for admission as a MS student, but they are required (by the graduate college) for PhD students. Interested students should submit materials by December 1st, 2018

Devin D Bloom <devin.bloom@wmich.edu>

Jobs

ArizonaStateU EvolutionAndMedicine

The Center for Evolution & Medicine (CEM) and the School of Life Sciences (SOLS) at Arizona State University (ASU) invite applications for a full time open-rank, tenured or tenure-track faculty position. Rank and tenure status will be commensurate with experience. The anticipated start date is August 2019. JOB# 12629

Preferred research topics include immunology, inflammation or autoimmune disease. Other possible topics include research on physiological systems, infectious disease, or aging. All approaches are welcome including field, clinical, and/or lab-based research. Clinical relevance and potential collaborations in clinical settings are encouraged. Preference will be given to candidates whose research plans hold promise of major advances that demonstrate why evolutionary biology is essential for medicine or public health. Experience or an interest in teaching evolutionary medicine and otherwise contributing to developing the field is desired. This position is part of an institutional initiative to advance the field of evolutionary medicine. Under the direction of Randolph Nesse, the Center for Evolution & Medicine (CEM) seeks to improve human health by establishing evolutionary

biology as a basic science for medicine, worldwide. In an institution that rewards transdisciplinary research and innovation, the CEM currently includes faculty members from the School of Life Sciences, School of Human Evolution and Social Change, the Department of Psychology, and the School of Mathematical and Statistical Sciences, as well as researchers from ASUs Complex Adaptive Systems Initiative and clinical partnerships with the Mayo Clinic and Banner Hospitals. For more information on the CEM, please visit http://evmed.asu.edu/. Newly remodeled space for CEM offices and laboratories encourages collaborations between members of its highly interdisciplinary group. The CEM provides support for visiting speakers, workshops, research collaborations, and extensive web resources for the worlds evolution and medicine community. The successful candidate will be expected to develop or maintain an innovative, independent, extramurally funded research program, provide excellent classroom instruction, contribute to curriculum development, mentor students and postdoctoral fellows, interact with a transdisciplinary group of colleagues, and provide service to the department, college and university. A competitive start-up package will be provided. Minimum Qualifications: a doctoral degree or an MD by the time of appointment, and a track record of research that uses evolutionary biology to address questions about health and disease. Candidates for rank of Associate or Full Professor must have a demonstrated record of significant extramural funding. Desired

Qualifications: postdoctoral experience, publications in refereed journals, demonstrated excellence in teaching and/or mentoring, experience working in a transdisciplinary environment; demonstrated success meeting the needs of diverse student populations and/or reaching out to diverse communities. To apply, please submit the following materials within a single PDF document to solsfacultysearch5@asu.edu: (1) a cover letter that specifies the rank for which you seek consideration and why this position is a good fit for you, (2) curriculum vitae, (3) three representative publications, (4) a statement of research vision and plans, (5) a statement of teaching philosophy/experience and (6) contact information (name, email and telephone number) for three references. Only electronic applications will be considered. The initial closing date for receipt of complete applications is December 7, 2018; if not filled, review will continue every week thereafter until the search is closed. A background check is required for employment. For additional information, please feel free to contact Randolph Nesse (nesse@asu.edu) or James Collins (jcollins@asu.edu). 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. ASUs full non-discrimination statement (ACD 401) is located on the ASU website at https://www.asu.edu/aad/manuals/acd/acd401.html and https://www.asu.edu/titleIX rmnesse@gmail.com

AuburnU BioInformaticsStatistics

Faculty Position in Statistics/Biostatistics

Department of Mathematics and Statistics College of Sciences and Mathematics Auburn University

The Department of Mathematics and Statistics at Auburn University is seeking to fill a nine-month tenure-track Assistant Professor position in the area of Statistics or Biostatistics to begin August 16, 2019. Applicants must have a Ph.D. or equivalent degree in Statistics, Biostatistics or a closely related field with research emphasis on Bioinformatics at the time employment begins. Postdoctoral research experience with an interdisciplinary research component and strong computational skills are desirable.

The department has a PhD program and various MS programs. It has around 50 mathematicians/statisticians

and more than 120 graduate students engaged in research in a wide variety of areas in mathematics and statistics. The department is especially interested in candidates who can contribute to the excellence of the academic community, teaching, and research. Auburn Universitys strong research programs in diverse academic areas present many opportunities for interdisciplinary research and for participation in multidisciplinary programs.

Candidates must submit their application material online through Auburn University job website:

https://aufacultypositions.peopleadmin.com/postings/-3209 .   Applications must include a cover letter, transcript(s), curriculum vita, teaching statements, research statements, and contact information for three professional references. Inquiries should be addressed to Dr. Ulrich Albrecht (Attn. Statistics/Biostatistics hiring) Professor and Interim Chair, Department of Mathematics and Statistics Auburn University Auburn, AL 36849-5310. Phone: 334-844-4290; Fax: 334-844-6555. Review of applications will begin January 2, 2019 and continue until the position is filled. The candidate selected for this position must be able to meet eligibility requirements for work in the United States at the time the appointment is scheduled to begin and continue working legally for the proposed term of employment. Candidates must possess excellent written and interpersonal communication skills.

Auburn University is an EEO/Vet/Disability Employer and committed to building an inclusive and diverse community.

abebeas@auburn.edu

AuburnU DirectorMuseumNatHist

Director of Auburn University Museum of Natural History - Associate or Full Professor Auburn University invites applications for a tenured, 12-month faculty position at the rank of Associate or Full Professor to serve as Director of the Auburn University Museum of Natural History (AUMNH). The Museum has significant collections of fishes, amphibians and reptiles, mammals, birds, plants, fossils, as well as freshwater, terrestrial and marine invertebrates, and is a focal point of evolutionary and biodiversity research in the Department of Biological Sciences at Auburn University. The successful candidate is expected to lead the museum to new levels of prominence in research and public engagement

through their own extramurally funded, internationally recognized research program and the coordination of research, collections, outreach and development activity in the AUMNH.

Applicants must submit a curriculum vitae, description of research interests, vision statement including their administrative philosophy and experience, and the names and contact information of three references.

Auburn residents enjoy a thriving community continually recognized as one of the best small towns in America, with moderate climate and easy access to major cities or to beach and mountain recreational areas. Situated along the rapidly developing I-85 corridor the combined Auburn-Opelika area has a population of over 160,000, with excellent public schools and regional medical centers.

More information about the department and its programs can be found at auburn.edu/cosam/departments/biology/ and aumnh.org.

Additional questions can be directed to Dr. Leslie Goertzen at goertzen@auburn.edu.

See Full Ad and Apply Here: https://aufacultypositions.peopleadmin.com/postings/3191 Kenneth Halanych <ken@auburn.edu>

BrownU DataScience

The following opportunity could plausibly include individuals working in genomics and evolution! Please consider and/or forward as appropriate.

Description

The Data Science Initiative at Brown University seeks applications for several tenure-track assistant professor positions in the area of data science. Successful candidates will be faculty in the Data Science Initiative with their tenure home in a Brown department. The start date for these positions is July 1, 2019.

Brown's Data Science Initiative (DSI) serves as a campus hub for research and education in data science. Engaging partners across campus and beyond, DSI facilitates and conducts both domain-driven and fundamental research in data-science, educates the next generation of data scientists, and explores the impact of the data revolution on culture, society, and social justice.

Qualifications

We seek candidates who can connect with the departments of Applied Mathematics, Biostatistics, Computer Science, or Mathematics, or other relevant units at Brown. We are particularly interested in candidates who work on the foundations of data science, societal impact of data science, or have a strong interdisciplinary orientation. A strong research record and teaching skills are required.

Application Instructions

To apply for these positions, please submit the relevant materials (curriculum vitae, concise research and teaching statements, and three letters of recommendation, with at least one letter addressing the applicants teaching abilities) online.

To receive full consideration, complete applications should be received by December 3, 2018. Applications received after this date may still be considered at the discretion of the search committee.

Inquiries about these positions should be addressed to dsi-info@brown.edu.

Equal Employment Opportunity Statement

Brown University is committed to fostering a diverse and inclusive academic global community; as an EEO/AA employer, Brown considers applicants for employment without regard to, and does not discriminate on the basis of, gender, race, protected veteran status, disability, or any other legally protected status.

"Weinreich, Daniel" <daniel_weinreich@brown.edu>

Cambridge UK ComputationalStatisticalGenetics

The Department of Genetics, University of Cambridge is recruiting a Lecturer (Assistant Professor) in the area of computational or statistical genetics.

Details can be found here: http://www.jobs.cam.ac.uk/job/19596/ University Lecturer in Statistical and Computational Modelling in Biology

Applications are invited for a University Lectureship in Statistical and Computational Modelling in Biology based at the Department of Genetics.

The Department of Genetics is a world class research and teaching environment with particular strengths in genomics, population genetics and quantitative cell and developmental biology. We are searching for an out-

standing scientist, with an excellent publication record, who is undertaking cutting edge and fundable work to complement our broad existing programme of research. In particular, we are encouraging applicants who will strengthen our current research activities in the area of quantitative genetics taking approaches that include mathematics, modelling, computing, bioinformatics and statistics. (http://www.gen.cam.ac.uk/research-groups/research-by-subject).

The candidate should also have an aptitude and enthusiasm for teaching at undergraduate and graduate level, and will be expected to contribute to these activities in the Department. This will include the design and delivery of undergraduate and graduate-level lecture courses and in particular the new undergraduate course in Statistical, Computational and Mathematical Modelling in Biology The successful candidate will also be expected to perform related academic duties associated with examinations and other forms of assessment.

We welcome applications from individuals with degrees in the biological, mathematical or physical sciences who are focused on applying their expertise to research in relevant areas of modern genetics. Applicants should also be able to demonstrate an effective contribution to teaching, and more general contributions to their subject and to related activities, for example to the public understanding of science.

Prospective candidates are invited to contact the Head of Department, Professor Anne Ferguson Smith, for informal enquires (Tel: +44 (0) 1223 339984, e-mail: afsmith@gen.cam.ac.uk).

The Department is committed to the Athena SWAN scheme to provide equal opportunities and to advance the representation of women in science. We welcome applications from all qualified candidates irrespective of gender but, as women are currently under-represented at this level in our department, we strongly encourage applications from female candidates. Appointment will be based on merit alone. The Department strongly supports DORA (http://am.ascb.org/dora/) and will assess research on its own merits rather than on the basis of the journal in which it is published.

"F. Jiggins" <fmj1001@cam.ac.uk>

CIBIO-InBIO Portugal MicrobialMetagenomics

Research Scientist Position at the CIBIO-InBIO, Portugal

Job Posting at http://www.cibio.pt/?pQ8 Application Review Begins December 6th, 2018

The CIBIO-InBIO (https://cibio.up.pt) in Vairão, Portugal, is seeking a highly motivated Research Scientist (RS). The work performed by the RS will contribute to our diverse research program devoted to the investigation of the role of microbial infection and host immunity in the etiology of respiratory disorders.

The RS will mainly focus on Omic-based research (metagenomics, metatranscriptomics and transcriptomics) on the impact of microbial diversity and function on human heath (host-microbe interactions). However, candidates with experience in Omic research applied to microbial ecology (e.g., microbe-environment interactions) are welcome to apply.

This research is part of ongoing collaborations between CIBIO-InBIO, the George Washington University (Washington DC, USA) and University of Vigo (Spain). The selected candidate will be based on the CIBIO-InBIO, but will also work at the Computational Biology Institute (CBI) in Washington DC (https://cbi.gwu.edu).

Applications can be submitted by any national, foreign and stateless candidate(s) holding a doctorate degree in Biology, Computational Biology, Bioinformatics, Microbial Ecology or related area.

General requirements:

1. Flexibility to work at and travel between the CIBIO-InBIO (Portugal) and the CBI, George Washington University (Washington DC, USA).

2. Experience in Omic analyses (metagenomics and transcriptomics) and an understanding of the key issues and relevant tools in the field. Experience with DNA and RNA extraction and sequencing is useful but not essential.

3. A strong quantitative background and good programming skills (R, Python and Perl) and Big Data managing.

Monthly remuneration to be paid is the one set by article

23 (3) of RJEC, corresponding to level 33 of the Single Salary Table, approved by Order no. 1553-C/2008 of December 31st, i.e. 2.128,34 Euros. A contract will be offered for one year with the possibility of extension for another year upon performance.

All applications for consideration must be submitted online at http://www.cibio.pt/?pQ8. For questions relating to this opportunity, please contact Dr. Pérez-Losada at mlosada323@gmail.com.

Marcos Perez-Losada <mlosada323@gmail.com>

CIBIO Portugal EvolutionaryGenomics

RESEARCH SCIENTIST POSITION ON EVOLUTIONARY GENOMICS AT CIBIO-INBIO, PORTUGAL

Reference: ICETA 2018-68 Job posting at http://www.cibio.pt/?pI5

Application deadline: 14 December 2018.

MAIN RESEARCH FIELD: Biological Sciences - Evolutionary Biology - Evolutionary Genomics

JOB DESCRIPTION: CIBIO/ICETA, Instituto de Ciências e Tecnologias Agrarias e Agro-Alimentares da Universidade do Porto (https://cibio.up.pt/) is seeking a highly motivated post-doctoral Research Scientist (RS) in the framework of project "To Change or not to Change? The genetic basis of seasonal coat color polymorphism" with reference PTDC/BIA-EVL/28124/2017, supported by national funds by FCT/MCTES and co-supported by Fundo Europeu de Desenvolvimento Regional (FEDER) through COMPETE 2020 - Programa Operacional Competitividade (POCI-01-0145-FEDER-028124), under a non-fixed term work contract up to a maximum of 30 months. The project and the RS position are included in the Research Group EVOCHANGE, Genomics of Evolutionary Change (https://cibio.up.pt/research-groups-1/details/evochange). The research interests of the group include understanding the genetic basis and evolution of adaptations, such as seasonal coat colour change, and the relative roles of demographic and selective processes shaping genomic variation of species, including through hybridization. The work will mostly involve analyses of genetic data obtained through high throughput sequencing, including from museum specimens, and may also include sampling, laboratory work, and collaboration in

the coordination of the research in close interaction with the Principal Investigator, his group and collaborators.

TENDER ADMISSION REQUIREMENTS: Application can be submitted by any national, foreign and stateless candidate(s) holding a doctorate degree in Biology and related areas and a scientific and professional curriculum whose profile is suited for the activity of the project. In case the doctorate degree was awarded by a foreign higher education institution, it must comply with the provisions of Decree-Law no. 341/2007 of October 12th, and all formalities established therein must be complied with at the application deadline. Additional specific requirements are i) experience in the analyses of high throughput sequencing data and one or more programming language, ii) knowledge and laboratorial experience in population genetics, iii) relevant scientific production in the area, iv) good oral and writing skills in English, v) good communication teamwork skills.

WORKPLACE: The work will be primarily conducted at Centro de Investigacao em Biodiversidade e Recursos Geneticos (CIBIO-InBIO), Universidade do Porto (located at Campus de Vairao, 4485-661 Vairao). CIBIO-InBIO is a young and dynamic research centre located near Porto, in Northern Portugal, which conducts research in all fields of biodiversity and evolution (http://cibio.up.pt/). The Centre hosts 34 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. The working language of the institute is English. Visits to other collaborating labs may take place.

APPLICABLE LEGISLATION: Decree-Law no. 57/2016 of August 29th, amended by Law 57/2017 and Regulatory Decree No. 11- A / 2017 which approved the doctorate hiring regime destined to stimulate scientific and technological employment for all knowledge areas (RJEC); Portuguese Labour Code, approved by Law 7/2009 of February 12, in its actual form.

WORK CONTRACT: Non-fixed term work contract up to a maximum of 30 months.

SALARY: Monthly remuneration to be paid is the one set by article 23 (3) of RJEC, corresponding to level 33 of the Single Salary Table, approved by Order no. 1553-C/2008 of December 31st, i.e. 2128.34 Euros.

SELECTION CRITERIA: The evaluation of the CV of the candidates, in particular the scientific merit and research experience will take into consideration the elements presented for the last five years of activity falling within the scope of the specific areas of the tender and will be performed according to the following criteria: 1. Integrated assessment of the curriculum trajectory of

the candidate, based on an overview of their scientific merits, namely: I. overall scientific coherence of the CV - 20% II. diversity and quality of scientific indicators in the specific areas of announcement - 20% III. participation in research projects and students supervision - 10% 2. Relevant experience, proved in CV, in: I. Analyses of high throughput sequencing data - 25% II. Knowledge and experience in programming languages - 15% II. Experience in laboratorial and data analyses in population genetics - 10%

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ClaremontC TeachingEvol Temporary5weeks

HelloX

The Keck Science Department of the Claremont Colleges is looking for a temporary maternity leave replacement to teach part of a "Genomics and Bioinformatics" course in the spring. "Genomics and Bioinformatics" is an upper division combined laboratory and lecture course that focuses on teaching students the skills to handle, manipulate, and analyze genome data. Students learn bash and R in the course, do a next gen sequencing project, and learn some basic evolutionary genomics analyses. This would be a great opportunity for postdocs or advanced graduate students in the Los Angeles area to get additional teaching experience.

The person in this position would teach for 4-5 weeks next Spring, mostly in April. The course meets Mondays and Wednesdays 1:15 - 4:15 and pays $800/week.

Please contact Findley Finseth, ffinseth@kecksci.claremont.edu, if you are interested.

Best,

Findley Finseth, Ph.D.

Assistant Professor of Biology Keck Science Department Claremont McKenna, Pitzer, and Scripps Colleges Claremont, CA 91711

"Finseth, Findley" <findleyransler@gmail.com>

CornellU ComputationalBiology

Faculty Position Available in Computational Biology X Initial screening of applications will begin November 30, 2018 Assistant/Associate Professor, Tenure-track Cornell University, Ithaca, New York 14853

Position description: The Department of Biological Statistics and Computational Biology at Cornell University (https://bscb.cornell.edu/) invites applications for a tenure-track position at the assistant or associate professor level in the area of Computational Biology, with an emphasis in population genomics, comparative genomics and/or functional genomics. The position will have responsibilities 70% in research and 30% in teaching on a 9-month academic year basis. Applicants will be expected to focus on developing and applying rigorous computational methods to large-scale data analysis in population, comparative, or functional genomics and will play a central role in the departments program in research and teaching.

Cornell is hosting a campus-wide expansion in genomics faculty recruiting, spearheaded by the Provosts Task Force in Genome Biology. A cluster of 5 tenure-track faculty positions will be opening over the next 3 years at the Assistant or Associate Professor level. In addition to newly-hired faculty, faculty from several related departments will join the Department of Computational Biology, to be launched soon, and the Faculty of Computing and Information Science. Prior to the launch of the Department of Computational Biology, the successful candidate would also affiliate with the Department of Biological Statistics and Computational Biology.

Cornell University has a broad teaching mission including introductory service courses in bioinformatics and more specialized and advanced courses for students in computational biology and related fields. The selected candidate will be expected to teach a 3 or 4 credit course each year and a 1-credit seminar course. Specific teaching responsibilities will be negotiated with the department chair as curriculum needs evolve.

Qualifications: A PhD in computational biology, computer science, computational statistics, or a related field and a primary interest in understanding biological phenomena through the development and use of computational and statistical methods. Postdoctoral experience with a demonstrated record of productivity is required. Training in computer science or computational statistics,

with experience in applications in population genetics, comparative genomics, functional genomics, or systems biology is expected. Outstanding applicants in all areas of computational biology will be considered, but research areas of special interest include comparative and population genomics; functional genomics; gene regulation; modeling dynamic cellular processes; and networks in biological systems.

Salary and Benefits: Competitive and commensurate with qualifications and experience. An attractive fringe benefit package is included.

Applications and Starting Date: Anticipated starting date is July 1, 2019 or as negotiated. Candidates should submit a cover letter, curriculum vitae, research and teaching statements, statement of diversity, equity, and inclusion and arrange to have three reference letters submitted to Academic Jobs Online at https://-academicjobsonline.org/ajo/jobs/12365. Inquiries may be sent to Andrew Clark, Search Committee Chair, ac347@cornell.edu. Initial screening of applications will begin November 30, 2018 and continue until the position is filled.

Please go to https://bscb.cornell.edu/ for information on the position and background about computational genomics at Cornell.

Opportunity: The new faculty member will join a collaborative, interdisciplinary community on the main campus in Ithaca, New York. Cornell University is an innovative Ivy League university and a great place to work. Our inclusive community of scholars, students and staff impart an uncommon sense of larger purpose and contribute creative ideas to further the university's mission of teaching, discovery and engagement. Cornell's global presence includes the medical college's campuses on the Upper East Side of Manhattan and Doha, Qatar, as well as the Cornell Tech campus on Roosevelt Island in the heart of New York City.

Cornell University seeks to meet the needs of dual career couples, has a Dual Career program and is a member of the Upstate New York Higher Education Recruitment Consortium to assist with dual career searches. Visit http://www.unyherc.org to see positions available in higher education in the upstate New York area. The Cornell community embraces diversity and inclusion. We value AA/EEO, Protected Veterans and Individuals with Disabilities, and seek candidates who will create a climate that attracts persons of all races, ethnicities and genders.

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

Coventry UK PathogenEvolution

Senior Research Fellow Job category Research Only Department Warwick Medical School, Microbiology & Infection, Coventry, UK Salary pounds 40,792 - pounds 48,677 per annum Location The University of Warwick, Coventry Vacancy Overview Fixed-term contract for 33 Month starting immediately

This position is associated with a five year pounds 2M Wellcome Trust Investigator award to Professor Mark Achtman (WMS) to determine How old are bacterial pathogens, and what evolutionary steps have they undergone?. The Senior Research Fellow will play a key role in the analysis and interpretation of ancient DNA metagenomes as well as genomes from extant Salmonella enterica generated through this project. Ancient DNA has huge potential to shed light on the evolution of pathogens. During the course of the project we will be generating hundreds of DNA metagenomes from ancient human and animal remains, and sequencing many thousands of genomes from modern pathogens. This unique data set will allow us to paint a historical picture of the evolution of bacterial pathogens.

Analysing this data will, however, require the development of novel pipelines and their interaction with large databases, which are the responsibility of the successful candidate. The candidate will integrate these pipelines and methodologies into EnteroBase (http://-enterobase.warwick.ac.uk) and use them for analyses. The candidate will also develop novel algorithms for metagenomic analyses and phylogenomics. The candidate will further be responsible for publishing the results in journals as well at conferences, and in obtaining research funding for additional projects.

The ideal candidate will have a background in computational biology or a related discipline such as bioinformatics or microbial population genetics. The person should have a first degree in natural sciences or engineering and hold a PhD in a relevant field. Expertise in data analysis is essential as is applied experience, as evidenced by high quality publications, in a related area. Interested candidates should contact Prof Mark Achtman, WMS at m.achtman@warwick.ac.uk.

– Prof Mark Achtman FRS, Warwick Medical School

Coventry CV4 7AL, UK

Mark Achtman <mksmaj@live.warwick.ac.uk>

CUNY NewYork TeachingEvolution

FACULTY VACANCY ANNOUNCEMENT

ABOUT JOHN JAY COLLEGE John Jay College of Criminal Justice is a senior college of the City University of New York (CUNY) led by President Karol V. Mason and located steps from Lincoln Center at the cultural heart of New York City. John Jay is an internationally recognized leader in educating for justice and committed to the advancement of justice and just societies around the world. John Jay is an Hispanic-serving institution; it is ranked third in the nation in black student success and is a top ten institution for promoting student social mobility. John Jay is proud to serve a diverse and dynamic student body that includes nearly fifty percent students who are first in their family to attend college as well as students who are immigrants, from low-income families, or from other historically underrepresented groups.

Founded in 1964, John Jay College is known for preparing its 15,000 students to serve the public interest as ethical leaders and engaged citizens. A public liberal arts institution offering bachelors and masters degrees and participating in the doctoral programs of the Graduate Center of the City University of New York, the College offers traditional criminal justice-related programs and a robust portfolio of liberal arts and sciences programs. These highlight themes of justice across the arts, sciences, humanities, and social sciences. Students can choose from 31 majors, 13 master's degree programs, and two doctoral programs. John Jay College seeks faculty members who thrive in multicultural academic environments and are committed to access and excellence in higher education.

POSITION OVERVIEW The Department of Sciences at John Jay College of Criminal Justice of the City University of New York (CUNY) invites applications for a position of Lecturer in Biology, with a proven track record in Science Education. The lecturer will specialize in the general area of Cellular and Molecular Biology, and/or Organismal and Physiological Biology. Experience in Evolutionary Biology would be favorable.

Since 2016, the Department of Sciences has been offering a new B.S. degree in Cell and Molecular Biology, along-side its Forensic Science and Toxicology majors. The successful candidate will be required to teach lecture, recitation and laboratory sections of Introductory Biology (BIO 101, 102, 103, 104) and a variety of elective biology courses as required by the department. The candidate should excel in teaching and pedagogical skills, and demonstrate commitment and enthusiasm for teaching at a Hispanic and Minority-serving Institution with over 13,000 undergraduates.

Additional responsibilities include advising undergraduate students, participating in departmental and college initiatives, and serving on committees related to our pedagogical improvement efforts (i.e. course assessment, curriculum development, etc.).

QUALIFICATIONS

Bachelor's degree in area(s) of expertise, and the ability to teach successfully.

OTHER QUALIFICATIONS

* Masters or Ph.D. degree in Biological Sciences; or Ph.D. in Science Education; or both a Masters degree in Biological Sciences and Masters in Science Education

* Candidates with a Bachelor's of Science Degree in the Biological Sciences and a Masters or Ph.D. degree in Science Education are especially encouraged to apply

* Three years of prior teaching experience in an undergraduate academic setting and ability to demonstrate use of innovative pedagogical strategies

* Experience in teaching a diverse student population

PREFERRED QUALIFICATIONS

* Experience in teaching both entry-level general biology courses as well as upper-level biology electives in the candidates are of expertise

COMPENSATION

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

HOW TO APPLY

If you are viewing the job posting on John Jay College website or in CUNYfirst, please select the "Apply Now" button. If you are viewing the job posting on any other website, please follow the instructions below:

* Go to www.cuny.edu and click on "Employment"

* Click "Search job listing"

* Click on "More options to search for CUNY jobs"

* Search by Job Opening ID number 19589

* Click on the "Apply Now" and follow the instructions

Once you have registered or logged in with your user name and password, upload your CV, statement of teaching philosophy, and at least three letters of recommendation as one document.

*All applicants are required to have at least three letters of recommendation submitted by their references as part of their application as described above.

CLOSING DATE

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Gamboa Panama ButterflyFieldAssist

The Evolution of Brains and Behaviour (EBAB) Lab (http://shmontgomery.co.uk/index.html) at the University of Cambridge is seeking a field assistant to help with developmental and behavioural studies of *Heliconius *butterflies at the Smithsonian Tropical Research Institute (STRI) in Gamboa, Panama. The successful candidate will spend approximately three months in Panama, beginning in late January 2019. The position is open to all students with a background in zoology and interest in animal behaviour or neurobiology.

*Heliconius *butterflies exhibit a marked expansion of the mushroom body, a region of the insect brain associated with learning and memory, being 3-4 times larger than in other Lepidoptera, including closely related Heliconiini genera. The EBAB Lab is investigating both the developmental basis and behavioural consequences of this expansion through developmental timeseries of neural tissue and behavioural experimentation across both *Heliconius *and non-*Heliconius *Heliconiini species.

The primary responsibilities of the field assistant will be to maintain stock butterfly populations and rear caterpillars. There will also be opportunities to collect wild butterflies from surrounding forests, assist with behavioural experiments on long-term memory and reversal-learning ability, and learn to perform butterfly brain dissections. This is an excellent opportunity for a recent graduate to gain experience in behavioural experimentation, experimental design and field collecting.

Dates: starting and finishing dates are flexible, but ideally the successful candidate will be available for three months, beginning in late January 2019.

Funding: the successful applicant will receive 800 USD per month, which comfortably covers living costs while in Panama. STRI requires that all researchers have health insurance, this is not provided but can be purchased through STRI at the applicants cost. Financial assistance with air travel to and from Panama will be available if required.

Accommodation: application can be made for accommodation through STRI or arranged privately. Accommodation costs are approximately 250-300 USD per month. Gamboa is a small town, with all facilities within comfortable walking distance.

Interested applicants should have training in zoology or a related field, and should send a CV and brief statement of research interests to Fletcher Young (fletcherjyoung@gmail.com) and Laura Hebberecht (laurahebberecht@gmail.com). Applicants will be interviewed via Skype in mid-December 2018.

Applications will close December 7th 2018.

Fletcher Young <fletcherjyoung@gmail.com>

GeorgeWashingtonU ComputationalBiology

Computational Biology Institute Department of Epidemiology and Biostatistics

* Milken Institute School of Public Health *

* The George Washington University*

The Computational Biology Institute and the Department of Epidemiology and Biostatistics of the GW Milken Institute School of Public Health are recruiting a full-time tenure track or tenured faculty at the rank of Assistant or Associate Professor. The successful candidate will develop a program of sponsored research with the Computational Biology Institute, and teach and mentor graduate students in the Department of Epidemiology and Biostatistics. Academic rank, salary and employment position are competitive and will be commensurate with experience. GW has a strong com-

mitment to achieving diversity among faculty and staff, and accordingly we encourage applications from members of underrepresented populations.

The Computational Biology Institute seeks faculty members to establish externally funded, internationally recognized, and interdisciplinary research programs in bioinformatics and/or computational biology in an area such as genome analysis, biodiversity informatics, translational medicine, public health, cancer, neurobiology and systems biology developing methods to address big data issues from a computational perspective.

The Department of Epidemiology and Biostatistics oversees the MPH, MS, and PhD programs in epidemiology, MPH program in biostatistics, and the MS program in public health microbiology and emerging infectious diseases. The Department collaborates with the Department of Statistics for the MS and PhD programs in biostatistics. The Computational Biology Institute also participates in the Genomics and Bioinformatics PhD program in the GW School of Medicine and Health Sciences.

Basic Qualifications: Applicants must have an MD or PhD in Bioinformatics, Computational Biology, Computer Science, Mathematics, Genomics, Epidemiology or a related discipline by date of appointment; as well as experience publishing in peer-reviewed journals, proposing and/or implementing funded research, and teaching graduate and/or undergraduate courses in their area of expertise.

*Responsibilities: *The successful candidate will devote approximately 50% of their efforts to obtaining, implementing or overseeing funded research, and 50% to teaching, mentoring, and educational administration.

Application Procedure: Applicants should complete the online faculty application at http://www.gwu.jobs/-postings/56958 and submit the following documents: 1) a curriculum vitae; 2) a statement of research interest to include accomplishments and future plans; and 3) a statement of teaching interest to include mentoring interest. Only complete applications will be considered. Review of applications will begin on December 5, 2018 and will continue until the positions are filled.

For further information about the Computational Biology Institute at George Washington University, please see *https://cbi.gwu.edu/*. Additional information about the Milken Institute School of Public Health can be found at http://publichealth.gwu.edu/ and the Department of Epidemiology & Biostatistics http://publichealth.gwu.edu/departments/-epidemiology-and-biostatistics . The university is an Equal Employment Opportunity/Affirmative Action em-

ployer that does not unlawfully discriminate in any of its programs or activities on the basis of race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity expression, or on any other basis prohibited by applicable law.

Employment offers are contingent on the satisfactory outcome of a standard background screening.

Adina Bora <abora@email.gwu.edu>

JohnMooresU Liverpool EvolAnimalBehaviour

The School of Natural Sciences and Psychology seeks to appoint a Lecturer or Senior Lecturer (equivalent to TT assistant professor) in Animal Behaviour. You will have a track record of conducting and publishing high quality research or be able to demonstrate outstanding research promise. We seek an animal behaviour specialist who can make an effective contribution to undergraduate and postgraduate learning, teaching and assessment. You will contribute to our successful undergraduate programmes in the biosciences (e.g. Animal Behaviour, Biology, Wildlife Conservation, Zoology).

https://www.ljmu.ac.uk/about-us/faculties/faculty-of-science/school-of-natural-sciences-and-psychology Informal enquiries may be made to Dr Antje Engelhardt, Subject Leader (Animal Behaviour).

email a.engelhardt@ljmu.ac.uk

Please note all of our vacancies will be closed to applications at midnight on the advertised closing date, unless otherwise stated.

Applications can be made using our online system: https://jobs.ljmu.ac.uk/vacancy/lecturer-or-senior-lecturer-in-animal-behaviour-370904.html Adam Reddon <adam.reddon@gmail.com>

KewGardens UK BiodiversityInformatics

Senior Research Leader - Spatial Analysis & Data Science

A fantastic opportunity has arisen to lead and manage an expert team within the Biodiversity Informatics and Spatial Analysis Department.

We are seeking a highly motivated and enthusiastic individual keen to build a strong research group and develop and deliver excellence in data analysis to support science at Kew.

Hours of work: Full time Contract Type: Permanent Salary: pounds 48,537 - pounds 53,627 per annum, depending on skills and experience

Closing Date 04/12/2018

For more information and to apply please visit: https://careers.kew.org/vacancy/senior-research-leader-spatial-analysis-data-science-369264.html More details

Kew is the world's leading botanic gardens, at the forefront of plant and fungal science, a UNESCO World Heritage Site and a major visitor attraction.

We want a world where plants and fungi are understood, valued and conserved ' because our lives depend on them.

We use the power of our science and the rich diversity of our gardens and collections to provide knowledge, inspiration and understanding of why plants and fungi matter to everyone.

Reporting to the Head of Biodiversity Informatics and Spatial Analysis, the post holder will be expected to use their cutting-edge analytical skills and experience to lead data analysis at Kew.

The role will best suit an individual who has experience of leading a team and who can use their expertise to help drive science at Kew. The post holder is responsible for their own grant-funded research project(s) within a discrete area of a wider research programme and will manage a small team responsible for providing spatial analysis and modelling services to support science. He/she will contribute to the overall running of the Science Directorate.

The salary will be pounds 48,537 - pounds 53,627 per annum, depending on skills and experience

We offer a fantastic range of benefits including a broad range of Learning and Development opportunities, with access to the Civil Service training curriculum, generous annual leave entitlement for new starters, family friendly policies, a choice of competitive pensions and flexible benefits scheme.

If you are interested in this position, please submit your application through the online portal, by clicking "Apply for this job".

We are committed to equality of opportunity and welcome applications from all sections of the community. We guarantee to interview all disabled applicants who meet the essential criteria for the post.

Alexandre Antonelli <alexandre.antonelli@bioenv.gu.se>

LaJolla California EvolutionaryMolecularGenetics

Molecular Geneticist - Aquaculture Science Advisement

Ocean Associates, Inc. (OAI) is seeking a?Molecular Geneticist to provide support to the NOAA?Southwest Fisheries Science Center?s Genetics, Physiology and Aquaculture program (SWFSC-GPA).?OAI supplies personnel support services on contract to government and industry clients for marine fisheries and protected species. This position will support the SWFSC-GPA and NOAA?s Office of Aquaculture with science synthesis, communication, and specific genetics expertise in a wide range of science, management, and international issues pertaining to marine aquaculture.

DUTIES The Individual shall provide the following services: * Provide advice on answering questions and concerns regarding the genetic effects of escaped or intentionally released fish on wild populations. * Evaluate and be a resource for the OMEGA model to help move it from development to operation, and to answer specific questions related to industry management and regulation. The purpose of the OMEGA model is to use the best available science to understand the genetic effects of escaped fish on wild populations and the implications in terms of industry management, economic viability of aquaculture operations, and policy making. This involves finding a defensible solution for an approach to broodstock management that is also environmentally sustainable in terms of presenting a risk to wild fish that is acceptably low. * Develop case studies for candidate aquaculture species. Provide guidance on populating model scenarios with operations assumptions and available data for wild populations. Advise the team on all aspects of aquaculture operations and ecological and genetic components of model. Understand and apply the available data for candidate aquaculture species and, more broadly, available research to inform model assumptions. * Review and prepare documents and other materials related to implementing aquaculture aspects of the National Ocean Policy.

Other Duties Include: * Produce a report documenting analyses performed, model performance, and suggested actions. * Produce a report documenting case study results and conclusions from a sensitivity analysis of model scenarios to identify priority areas for further research.

Travel is anticipated Average estimated hours per week are 20 to 25. Start Date:?ASAP Location: La Jolla, CA Salary and Benefits:?Commensurate with experience. Comprehensive benefits package.

REQUIRED KNOWLEDGE AND EXPERIENCE Selected individual(s) must have the following minimum qualifications: * A Master?s degree from an accredited college or university with a clearly in a related field of study with emphasis in molecular biology, population genetics, evolutionary biology, forensic science or a clearly related field and a minimum of four (4) years demonstrated field capability and related directly to the individual task order. Three (3) years of progressively higher level graduate education leading to a Ph.D. or Ph.D. from an accredited college or university with a major clearly in a related field of study with emphasis in molecular biology population genetics, evolutionary biology, forensic science or a clearly related field may be substituted for two (2) years of the required experience.

Additional required qualifications include: * Thorough knowledge of US marine aquaculture policy as it pertains to genetics of finfish and invertebrates. * Expertise in study design and application of the Offshore Marine Escapes Genetics Assessment (OMEGA) model. * Expertise in population genetics of marine fish and invertebrates. * Expertise is developing genetic management protocols for fish and invertebrate aquaculture.

Additional preferred qualifications include:? * Experience participating in multi-agency marine species recovery planning * Expertise in completing scientific analyses and publishing results in scientific journals * Experience in presenting results in public forums

If you are interested in being considered for this position, please APPLY THROUGH OUR ADP WEB PORTAL AT THE LINK BELOW.

https://workforcenow.adp.com/mascsr/default/-mdf/recruitment/recruitment.html?cidÂ93435d-91d4-4a65-8a21-2de9187df1dd&jobId%9563&lang=-en_US&sourceÃ3&ccId000101_000001   Matt Morris <mattmorris@oceanassoc.com>

LoyolaU Chicago EvolutionaryBiology

The Department of Biology, College of Arts & Sciences, Loyola University Chicago (LUC) seeks qualified candidates for a newly authorized, full-time position in Evolutionary Biology, beginning in the 2018-2019 academic year. The position is for a tenure-track Assistant Professor. We expect the new faculty member to participate in teaching Evolution to a wide variety of science students in addition to Biology majors. The Department of Biology has 48 full-time faculty members serving more than1,750 majors and students from associated university programs at the Lake Shore Campus on Chicagos north side. For more information about the department, please visit our web site at http://www.luc.edu/biology . The successful candidate is expected to run a productive research laboratory, involve undergraduate and graduate students in research, and be competitive for external funding. Till the midterm review in the third year, the incumbent will also teach two courses per semester, including a course in Evolution and advanced courses in their specialty area. Teaching after the third year will be determine by departmental guidelines for teaching load. Researchers in all areas of evolutionary biology are welcome to apply, but preference will be given to those utilizing comparative phylogenetic approaches in addressing fundamental evolutionary questions.

The successful candidate for this position will have a PhD in Evolutionary Biology or a related field, post-doctoral research experience, and proven excellence in research

Applicants should submit a current Curriculum Vitae, a research statement, a teaching statement, including courses they are prepared to teach, and a letter of interest to www.careers.luc.edu. They should provide the names and addresses of three individuals prepared to advise on their professional qualifications for this position. References will not be contacted immediately but may be consulted at subsequent points in the review process.

Review of applications will begin immediately and continue until the position is filled.

Applications received before December 1, 2018 will receive full consideration.

Loyola University Chicago is an Equal Opportu-

nity/Affirmative Action employer with a strong commitment to hiring for our mission and diversifying our faculty. The University seeks to increase the diversity of its professoriate, workforce and undergraduate and graduate student populations because broad diversity V including a wide range of individuals who contribute to a robust academic environment V is critical to achieving the Universitys mission of excellence in education, research, educational access and services in an increasingly diverse society. Therefore, in holistically accessing the many qualifications of each applicant, we would factor favorably an individuals record of conduct that includes experience with an array of diverse perspectives, as well as a wide variety of different educational, research or other work activities. Among other qualifications, we would also factor favorably experience overcoming or helping others overcome barriers to an academic career or degrees.

Quick Link: htp://www.careers.luc.edu/postings/9522 Thomas Sanger Assistant Professor Department of Biology Loyola University in Chicago Life Sciences Rm428

www.anolisevodevo.com tsanger@luc.edu

tsanger@luc.edu

McMasterU EvolutionaryProbStats

Hi folks,

The department of mathematics & statistics at McMaster has an open position for a tenure-track assistant professor in probability & statistics: specifically, for "candidates with a PhD in Statistics, Mathematics, Computer Science or a related field and a proven record of research excellence in Probability or Statistics in an area bridging fundamental and applied approaches". I personally am particularly interested in attracting candidates with interesting applied research strengths; of course, I have a bias toward population biology/dynamics and bioinformatics, but I would happy to be see applications from any scientists with a creative and thoughtful research program.

McMaster is a research-intensive university with strengths in health sciences and engineering; applicants would find lots of potential collaborators in the biology and psychology, neuroscience and behaviour departments and in the faculty of health science (among many others).

We will start to review applications on November 15

(sorry for the short notice!); feel free to give me (Ben Bolker, bolker@mcmaster.ca) a heads-up if you are planning to apply but won't be able to complete your application by that time, or with any other questions.

There are many competing, open positions in statistics this year at excellent universities throughout Canada and the US (maybe even at your own institution); Id encourage you (or your early-career associates) to consider McMaster as one of your options.

See   https://www.mathjobs.org/jobs/jobs/12792   (or https://tinyurl.com/macstats2018) for details.

Please redistribute this information widely!

Ben Bolker <bbolker@gmail.com>

MississippiStateU EvoDevo

We are hiring a Developmental Biologist and have extended the application deadline to November 30, 2018. We are particularly interested in receiving more applicants that have evolutionary or comparative components to their research. For questions or inquiries please contact the search chair, Brian Counterman, bcounterman@biology.msstate.edu

Posted Advertisement: The Department of Biological Sciences at Mississippi State University invites applications for a 9-month tenure-track Assistant Professor position in Developmental Biology.

We are seeking candidates that study growth, differentiation, and/or morphogenesis, at the molecular, cellular, genetic and/or evolutionary levels in any taxonomic group (animals, plants, fungi, protists, etc.).

The successful candidate will be expected to establish an externally funded research program, teach courses for the undergraduate and graduate programs (M.S. and Ph.D.), and contribute to the service mission of the department. Appointment will be at the rank of Assistant Professor, with an anticipated start date of August 16, 2019. Minimum requirements include a Ph.D. in a relevant area of Biology, post-doctoral experience, evidence of sustained scholarly productivity, and evidence of teaching competence.

Mississippi State University is a comprehensive landgrant university that serves more than 22,000 students. Campus research infrastructure includes a High Performance Computing Collaboratory (http://-www.hpc.msstate.edu/), proteomics and genomics equip-

ment at the Institute for Genomics, Biocomputing & Biotechnology (http://www.igbb.msstate.edu/), computational and statistical expertise at the Center for Computational Sciences (http://www.ccs.msstate.edu/-), Center of Biomedical Research Excellence (COBRE, NIH), remote sensing and GIS expertise in the Geosystems Research Institute (http://www.gri.msstate.edu/-), and microscopy and imaging through the Institute for Imaging and Analytical Technologies (http://-www.i2at.msstate.edu/). Faculty in the Department of Biological Sciences have diverse research interests and active collaborations with MSU faculty in the Departments of Anthropology, Chemistry, Computer Science, Geosciences, Biochemistry, Molecular Biology, Plant Pathology & Entomology, Biological Engineering, Plant and Soil Sciences, and the College of Veterinary Medicine.

The Department of Biological Sciences is housed in Harned Hall on the MSU-Starkville Campus, which was recently renovated providing modern facilities for cutting-edge research. The department offers degrees at the B.S. (Biological Sciences, Medical Technology, and Microbiology), M.S. (Biological Sciences thesis and non-thesis) and Ph.D. (Biological Sciences) levels. Additional details on the department are available at http:/-/www.biology.msstate.edu . Applicants must apply online at http://explore.msujobs.msstate.edu (search job 497775 under Careers tab). Attach (in one pdf file) a cover letter, a CV, statement of research expertise and goals (2-page maximum), a statement of teaching interests and competency (2-page maximum), contact information for three references and reprints of up to 3 publications. Screening of applications will begin November 30, 2018 and will continue until the position is filled.

MSU is an equal opportunity employer, and all qualified applicants will receive consideration for employment without regard to race, color, religion, ethnicity, sex (including pregnancy and gender identity), national origin, disability status, age, sexual orientation, genetic information, protected veteran status, or any other characteristic protected by law. We always welcome nominations and applications from women, members of any minority group, and others who share our passion for building a diverse community that reflects the diversity of our student population.

Brian A. Counterman Associate Professor Department of Biological Sciences Mississippi State University

bcounterman@biology.msstate.edu
www.countermanlab.org   bc650@igbb.msstate.edu

NatlMuseumNaturalHistory ResearchMammalogist

Research Zoologist Department of Vertebrate Zoology National Museum of Natural History Smithsonian Institution

The Smithsonians National Museum of Natural History seeks a zoologist to conduct an integrative specimen- or other collection-based research program in vertebrate evolution and biodiversity, in the disciplines of herpetology, ichthyology, mammalogy, and/or ornithology, especially mammalogy. The successful candidate is expected to develop an internationally recognized research program that makes important contributions to understanding vertebrate evolution and biodiversity through integrative research involving phylogenetics, anatomy, development, genomics, biogeography, conservation, informatics, or related fields. Frequent publication of highly regarded papers in competitive, peer-reviewed journals, curation of collections in specialty area, service to the scientific community in leadership capacities, acquisition of external funding, engagement in outreach activities, and mentorship of students are expected.

Full-time, permanent appointment with full Government benefits to be filled at the GS-12 level; US citizenship and a one-year probationary period are required. The museums authorized salary range for this position at this time is $81,548 V $86,984 per year. College transcripts and proof of U.S. accreditation for foreign study must be submitted online by the closing date of announcement or your application will be disqualified. For complete requirements and application procedures go to www.sihr.si.edu or www.usajobs.gov and refer to Announcement 19A-JW-304235-DEU-NMNH. The announcement opens 11/01/2018. Applications and all supporting documentation must be received on-line by 12/13/2018 and must reference the announcement number. All applicants will be notified by email when their application is received. The Smithsonian Institution is an Equal Opportunity Employer.

"de Queiroz, Kevin" <deQueirozK@si.edu>

NCState Raleigh ProgramCoordinator AppliedEvolBiology

We are searching for a program coordinator for our NSF graduate training program 'Agricultural Biotechnology in Our Evolving Food, Energy and Water Systems'. This program is broadly interdisciplinary, including natural and social sciences as well as humanities. Students interested in applied evolutionary biology are encouraged to apply. The program coordinator is responsible for day to day administration and planning under direct supervision of the program director. A large proportion of the job will involve interactions with doctoral students working toward degrees in disciplines ranging from public administration to molecular genetics. The program was just recently funded by the National Science Foundation (NSF) through its National Research Traineeship (NRT) initiative. Because this 5-year program is just getting started, the person in this position will have the opportunity to contribute to growing and shaping the program. To integrate into the program, the project coordinator will participate in classes and activities.

Recruitment of students The person in this position will need to:

*Design and carry out a marketing plan for our program to other universities and colleges through social media (Facebook, Twitter, Instagram, etc), email and phone contacts with faculty and administrators.

*Enhance a section of our Genetic Engineering and Society Website as a recruitment tool.

*Communicate with potential applicants and connect these applicants with appropriate NRT faculty.

*Coordinate application process with those of PhD graduate programs in five NCSU colleges.

*Maintain communication with applicants throughout the recruiting period.

*Develop and maintain filing system for applications.

*Work with faculty recruitment/admissions committee to select students for group interview visits and arrange travel, accommodations and campus venues for visits.

Course arrangements - The person in this position will need to:

*Schedule program related courses

*Work with course instructors to make travel and other arrangements for July-August field course in Eastern North Carolina.

*Provide logistical course support during the field course and other courses.

*Assist in developing materials for the field course as well as courses taught on campus.

*Assist with logistics of campus courses and the weekly colloquium

Student and program coordination - The person in this position will therefore need to:

*Assist students with applying for NC residency, fellowship payments, and coordinating NRT and departmental responsibilities.

*Track appointments of graduate students to the program.

*Maintain files and progress reports for all students

*Assess special academic and personal needs of individual students

*Assist with design and implementation of student assessment plan

*Coordinate logistics of student group projects

*Create and maintain contacts with external program stakeholders (farmers, conservation groups, industry)

*Coordinate logistics for visits of outside seminar speakers and external advisory committee members

*Make arrangements for NRT meetings

*Develop materials for annual NSF assessment and external evaluation of program

*Assist executive committee members with tasks.

*Assist subcommittees with tasks.

*Take meeting notes and write reports for NSF and others

Fred Gould <fgould@ncsu.edu>

NorthCarolinaStateU PlantEvolution

Research Assistant in Plant Evolutionary Ecology Department of Plant and Microbial Biology North Carolina State University Raleigh, NC USA

A full-time position for a Research Assistant is available in Seema Sheth < https://seemasheth.weebly.com/ >s plant evolutionary ecology lab in the Department of Plant and Microbial Biology < https://cals.ncsu.edu/-plant-and-microbial-biology/ > at North Carolina State University in Raleigh, North Carolina. We study the ecological and evolutionary processes underlying species climatic niches and geographic ranges, with the aim of understanding evolutionary and plastic responses to climatic changes. We combine field, greenhouse, and growth chamber experiments, quantitative genetics, and comparative analyses to examine constraints to adaptation in plant populations, species, and clades.

The successful candidate will contribute to several projects in the lab studying plant evolutionary ecology, primarily using monkeyflowers (Mimulus) as a model system. Main responsibilities include establishment and maintenance of field, growth chamber, and greenhouse experiments, data collection and management, supervision and training of undergraduate researchers, and general lab and clerical tasks. Although the technician will be based at North Carolina State University, travel for fieldwork is necessary. Fieldwork will require long days initiating experimental populations and collecting seeds and data. Greenhouse work will involve standing for long periods of time in hot, humid, and dirty conditions. Motivated individuals will have the opportunity to participate in data analysis, presentation, and manuscript writing.

Candidates must have a Bachelors degree in Ecology, Evolutionary Biology, Botany, or a related discipline, and at least two years of experience conducting ecological or evolutionary field and greenhouse experiments with plants. Candidates are also expected to have exceptional organizational skills, a strong work ethic, an excellent problem-solving ability, and careful attention to details, including the maintenance of clear records. Candidates must also have strong oral and written communication and time management skills and the ability to work both independently and closely with others. We seek an individual who has a valid drivers license and

is willing to travel and do physically strenuous work in harsh field conditions. Basic experience with Geographic Information Systems, R and Google Sheets and Docs is strongly preferred.

This position is for one year, with potential for renewal for up to two additional years upon satisfactory performance. Exact start date is flexible, but ideally no later than February 2019.

TO APPLY: Please submit application to: https://-jobs.ncsu.edu/postings/109452. You will need to upload 1) a cover letter describing your interest in and qualifications for this position, along with your current and future career interests, 2) CV, and 3) contact information for 3 references. Please direct questions to Dr. Seema Sheth at Seema_Sheth@ncsu.edu. Review of applications will begin immediately and continue until the position is filled.

Seema Sheth, Ph.D. Assistant Professor Department of Plant and Microbial Biology North Carolina State University seemasheth.weebly.com

Seema Sheth <Seema_Sheth@ncsu.edu>

RutgersU 2 EvolutionaryBiol

Recruitment/Posting Title Assistant Professor

Salary Open

Posting Summary

Rutgers University-Newark seeks to hire a tenure-track position at the rank of assistant professor in the Department of Biological Sciences within the Ecology and Evolutionary Biology cluster.

We seek applicants who will augment the department's existing strengths and be potential collaborators (please see https://sasn.rutgers.edu/academics-admissions/-academic-departments/biological-sciences for current faculty research). We are looking for field ecologists and/or evolutionary ecologists who are working with or use any of the following in their research program, including any combination of: big data, evolutionary genomics, computational biology/programming, transcriptomics, microbes, field studies, soil ecology, plant biology and/or evolutionary ecology.

Responsibilities: The successful applicant will be expected to maintain a dynamic and competitive research program, advise graduate students, include undergraduates in their labs, apply for external funding, and teach

both undergraduate and graduate courses. A competitive salary and startup funds will be provided.

Requirements: PhD in Ecology or Evolutionary Biology, at least one year of Postdoctoral experience, a strong publication record, teaching experience, successful grant writing.

Qualifications Minimum Education and Experience

Ph.D. in Ecology or Evolutionary Biology, at least one year of Postdoctoral experience, a strong publication record, teaching experience and successful grant writing.

Overview

The Department of Biological Sciences at Rutgers University-Newark (RU-N) is federated with the Biology Department at New Jersey Institute of Technology (NJIT). The combined faculty of 37 offers, besides a large biology major and minor undergraduate curriculum, three graduate concentrations in Cell and Molecular Biology, Ecology and Evolution, and Computational Biology. With a faculty that includes nationally and internationally recognized scholars, the department combines cutting edge research with innovative student instructions with an emphasis on integration of STEM and the RU-N's urban mission of community engagement.

RU-N is an extremely diverse and vibrant campus located in Newark, NJ. The department is well integrated into a large, highly collaborative ecology and evolutionary biology community across Rutgers University as well as our federated/joint biology department with NJIT. We have strong connections to many other programs (Rutgers Medical Schools, and Departments of Ecology, Evolution & Natural Resources and Entomology at Rutgers University-New Brunswick, the American Museum of Natural History, as well as the myriad of other nearby universities in NJ and NYC). RU-N offers outstanding core facilities including a high-powered computer cluster, genomics, proteomics, transgenic animals, confocal microscopy and cryo-EM. Rutgers has a field station in the NJ Pine Barrens, an excellent place for running field courses and local research, and access to long-term field sites in Liberty State Park, the Meadowlands and other parks.

Posting Number 18FA0723

Posting Open Date 10/29/2018

Posting Close Date 12/01/2018

Special Instructions to Applicants

Interested individuals are encouraged to apply with a letter of intent, a curriculum vitae, a statement of research plans, a statement of teaching plans, and the names and contact information for three individuals who will provide letters of reference.

Quick Link to Posting http://jobs.rutgers.edu/-postings/78277 Campus Rutgers University-Newark

Home Location Campus Rutgers University-Newark

Job Category Academic - Academic

Affirmative Action/Equal Employment Opportunity Statement It is university policy to provide equal employment opportunity to all its employees and applicants for employment regardless of their race, creed, color, national origin, age, ancestry, nationality, marital or domestic partnership or civil union status, sex, pregnancy, gender identity or expression, disability status, liability for military service, protected veteran status, affectional or sexual orientation, atypical cellular or blood trait, genetic information (including the refusal to submit to genetic testing), or any other category protected by law. As an institution, we value diversity of background and opinion, and prohibit discrimination or harassment on the basis of any legally protected class in the areas of hiring, recruitment, promotion, transfer, demotion, training, compensation, pay, fringe benefits, layoff, termination or any other terms and conditions of employment. For additional information please see the Non-Discrimination Statement at the following web address:

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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

RZSS EdinburghZoo ConservationGenetics

Research Scientist (Conservation Genetics) Location: Edinburgh Zoo

About Us The charity that owns both RZSS Edinburgh Zoo and RZSS Highland Wildlife Park - are looking for committed, compassionate and conservation-minded individuals to join our expert staff team. RZSS aims to connect people with nature and safeguard threatened species from extinction, a mission that sees us work both here in Scotland and in over 20 countries around the world. From inspiring the next generation about wildlife in our parks to protecting chimpanzees in the Ugandan rainforest; looking after some of the world's

most endangered species to saving the Scottish wildcat, RZSS is making a huge difference and we need your help to continue to grow.

The role An opportunity has arisen for a committed researcher to join the Royal Zoological Society of Scotland WildGenes lab. Reporting to the Conservation Programme Manager - WildGenes in our Conservation team, the successful candidate will initiate, implement and disseminate conservation genetics projects in the WildGenes laboratory. Duties include assisting with the project management and analysis of genetic data for a diverse portfolio of conservation genetic projects.

This is a full time permanent role where the working hours are 37.5 hours per week.

Who we are looking for The successful candidate will have a PhD in Conservation Genetics or Population Genetics/Genomics, a proven track record of scientific publication, and a commitment to conservation. You will enjoy working at multiple levels, from complex data analysis to presenting results to a wide range of audiences. Since our projects are based across the globe, the role will involve international travel and willingness to travel to attend meetings is therefore essential.

Applicants with additional background in any of the following disciplines will be welcomed: Quantitative Genetics, Population Modelling, Bioinformatics, Project Management within the conservation sector.

Closing date: Wednesday 2nd January 2019.

For full information on how to apply, please visit the RZSS vacancy page and follow the instructions.

Invitation to interview will be by email/phone and interviews will take place on Tuesday 15th January 2019.

For any questions and queries, please email Dr Alex Ball at aball@rzss.org.uk quoting "Research Scientist" as the subject, or call 0131 314 0388.

Our mission is Connecting people with nature. Safeguarding species from extinction.

The RZSS strives to be an equal opportunities employer. Registered Charity SC004064

Alexander Ball <aball@rzss.org.uk>

SanDiegoZoo
SeniorResearchCoordinator

The Senior Research Coordinator will work in the Conservation Genetics group at the San Diego Zoo Institute for Conservation Research, applying molecular genomic methods to address critical questions in evolution, and increase our understanding of endangered species management, population viability and extinction risk. Essential functions of this position include conducting collaborative research projects in the field of genomics and bioinformatics; determining study subjects, research parameters and methodologies; overseeing and conducting documentation of research results and data analysis; publishing papers in peer-reviewed scientific journals and popular literature; making presentations to professional groups and the public; participating in seeking funding through grant applications; training students, technicians and volunteers. Representative qualifications for this position include a Masters degree in biology, zoology, genetics, genomics, bioinformatics or related fields. A PhD in equivalent specialized areas is preferred. Outstanding data analysis skills and bioinformatics background are required, as well as knowledge of population genetics and recent molecular genomic methods (NGS). Excellent communication and writing skills and the ability to work effectively with others is desirable. For more job information and to apply: www.sandiegozoo.org/jobs. Deadline: Tuesday, November 13, 2018. AA/EOE.

– Aryn P. Wilder, PhD Researcher, Conservation Genetics San Diego Zoo Institute for Conservation Research 15600 San Pasqual Valley Rd Escondido CA 92027 760-291-5453

Aryn Wilder <awilder@sandiegozoo.org>

SmithsonianInst 2
InvertebrateEvolution

Hello All,

We are searching for 2 outstanding invertebrate zoologists. Applicants are expected to have a question-driven

research program focused on evolutionary, biodiversity, ecological, or conservation approaches as well as expertise in at least one invertebrate group (sorry insects and chelicerates are excluded). Any taxonomic group specialty will be considered. Positions are primarily research positions, making them comparable to typical academic positions with collections administration duties instead of teaching. Applicants must be able to demonstrate potential for modern and historical collections-based research. The collections are an amazing resource.

You must be a US citizen to apply.

Applications will be accepted until Jan. 7th. Late or incomplete applications will not be considered.

For more information and to apply, see the job ad (19A-JW-304220-DEU-NMNH) here https://-www.usajobs.gov/GetJob/ViewDetails/516234600. For further information or questions, contact the search committee chair, Chris Meyer (meyerc@si.edu) . Application process is a bit different than for non-federal academic jobs so check it out well ahead of the deadline and follow instructions to the letter. For questions regarding the application process, contact the HR Specialist on the announcement.

Please feel free to share this announcement with everyone.

Cheers - Karen

Ad in Science:

Research Zoologist, Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institution

The Smithsonians National Museum of Natural History seeks a zoologist to conduct an integrative, specimen- or collection-based research program in invertebrate evolution and biodiversity (exclusive of hexapods, myriapods, and arachnids). The successful candidate is expected to develop an internationally recognized research program that makes important contributions to understanding invertebrate evolution and biodiversity through synthetic research involving phylogenetics, genetics, anatomy, development, genomics, biogeography, conservation, informatics, or related fields. Frequent publication of highly regarded papers in competitive, peer-reviewed journals, curation of collections in specialty area, service to the scientific community in leadership capacities, acquisition of external funding, engagement in outreach activities, and mentorship of students are expected.

Full-time, permanent appointment with full Government benefits to be filled at the GS-12 level; US citizenship and a one-year probationary period are required. The museums authorized salary range for this position at this time is $81,548 - $86,984 per year. College transcripts and proof of U.S. accreditation for foreign study must be submitted online by the closing date of announcement. For complete requirements and application procedures go to www.sihr.si.edu or www.usajobs.gov and refer to Announcement 19A-JW-304220-DEU-NMNH. The announcement opens November 7, 2018. Applications and all supporting documentation must be received on-line by January 7, 2019 and must reference the announcement number. All applicants will be notified by email when their application is received. The Smithsonian Institution is an Equal Opportunity Employer.

X Karen Osborn Research Zoologist/Curator of Polychaetes, Peracarids and Plankton Department of Invertebrate Zoology w 202.633.3668 osbornk@si.edu http://invertebrates.si.edu/osborn/ http://orcid.org/-0000-0002-4226-9257 SMITHSONIAN INSTITUTION NATIONAL MUSEUM OF NATURAL HISTORY Facebook < https://www.facebook.com/nmnh.fanpage/ > | Twitter < https://twitter.com/NMNH > | Instagram < https://www.instagram.com/smithsoniannmnh/ >

Mail: Department of Invertebrate Zoology, Smithsonian National Museum of Natural History, MRC-163 P.O. Box 37012, Washington, D.C. 20013-7012 USA

"Osborn, Karen" <OsbornK@si.edu>

StockholmU EnvironmentalGenomics

Stockholm university has opened a position broadly in Environmental Genomics. The successful candidate may work in any area ranging from Metagenomics of lake systems to Metabarcoding of gut contents, on evolutionary or ecological problems. The position is connected to SciLifeLab in Stockholm.

*S**ubject**description* **Genomic studies of all kinds of non-human biota and their relationships to the environment, focusing on structure and function of ancient or recent systems.

Further information https://www.su.se/-english/about/working-at-su/jobs?rmpage=-job&rmjobc78&rmlang=UK Peter Hambäck <peter.hamback@su.se>

TrinityU
CowlesProfessorOfEvolution

The Department of Biology at Trinity University invites applications for the Ruth C. and Andrew G. Cowles Professor of Life Sciences in the field of ecology or evolutionary biology. We seek a nationally-recognized candidate with an established record of scholarship commensurate with an endowed professorship, who will continue to pursue a substantive, externally-funded research agenda that incorporates mentoring of undergraduate students. We are most interested in candidates who will complement and extend departmental expertise in teaching and research. The successful candidate will teach both introductory and upper division courses with a dedication to innovative modern pedagogy. This position also includes opportunities to contribute to the broader university curriculum and interdisciplinary programs. The Cowles Professor must have a demonstrated commitment to improving diversity, inclusion, and equity in undergraduate STEM education. Salary is commensurate with experience, and the position includes a supplementary research budget.

Trinity University is a small, private, independent liberal arts and sciences university recognized for excellence in teaching and high impact undergraduate research. The university curriculum (https://new.trinity.edu/-academics/pathways-trinity-curriculum) and strategic plan (https://strategicplan.trinity.edu/sites/-strategicplan.trinity.edu/files/trinity-tomorrow-strategicplan.pdf) highlight these priorities. The Department of Biology (https://new.trinity.edu/-academics/departments/biology), located in Trinitys state-of-the-art Center for Sciences and Innovation, consists of 13 highly collaborative faculty. The department serves majors in Biology, Neuroscience, Biochemistry and Molecular Biology, and Environmental Studies. Trinity is located in San Antonio, a large, vibrant, cosmopolitan city in south central Texas. The citys cost of living is relatively low for a major metropolitan area. More information on San Antonio can be found at http://visitsanantonio.com/ . Applicants should submit a cover letter, curriculum vitae, statement of teaching philosophy, research plan, statement of commitment to diversity and inclusion, and names and contact information of three references to biology@trinity.edu. Please direct any inquiries about the position to the committee chair, Kelly Lyons (klyons@trinity.edu).

Evaluation of applications will begin January 15, 2019 and continue until the position is filled. All offers of employment are contingent upon completion of a background check. Women and minority candidates are strongly encouraged to apply. Trinity University is an equal opportunity employer, and as such provides equal opportunity for employment and advancement of all employees without regard to race, color, religion, sex, age, national origin, disability, military/veteran status, sexual orientation, gender identity, gender expression, or any status protected by Federal, State, or Local Laws.

Michele A. Johnson, Ph.D. Associate Professor Trinity University Department of Biology One Trinity Place San Antonio, TX 78212

michele.johnson@trinity.edu office phone: 210-999-8918 lab phone: 210-999-8914 twitter: @LizardMichele *she/her/hers*

Michele Johnson <mjohnso9@trinity.edu>

UAlabama
EvolutionaryMarineBiology

The Department of Biological Sciences at The University of Alabama, Tuscaloosa invites applications for a full-time (9 month) tenure-track Assistant Professor position in Marine Biology to begin Fall 2019. This position will be based at the Dauphin Island Sea Lab (DISL; www.disl.org) on the Alabama Coast near Mobile. DISL offers excellent research facilities and support. We seek a highly innovative and collaborative scientist with a strong academic background in Marine Biology. The successful candidate is expected to establish an active, independent research program and attract extramural funding while also mentoring and teaching undergraduate and graduate students. Candidates whose research addresses problems facing marine systems such as coral bleaching and disease, ocean acidification, eutrophication, and other anthropogenic impacts are especially encouraged to apply. Applicants should have demonstrated experience using modern analytical techniques to address fundamental questions in their area of research. The successful candidate will be a highly motivated individual with the ability to interact with other faculty members in the Department of Biological Sciences and at the DISL. Minimum qualifications include a PhD in biology or related discipline, post-doctoral experience, and a strong record of publishing in peer-reviewed

journals. Teaching responsibilities will include an undergraduate course in Marine Biology, as well as specialized undergraduate and graduate courses in the successful candidate's area of expertise.

Questions about the position should be addressed to the chair of the search committee, Dr. Julie Olson (jolson@ua.edu). To apply, go to https://facultyjobs.ua.edu, complete the online application (Job #0811719), and upload: (1) a cover letter; (2) CV; (3) statement describing past research achievements and future goals; (4) statement of teaching interests and philosophy; and (5) a list of three to five references (including contact information). The search committee will request letters of reference as needed. Consideration of applications will begin 15 December 2018, and will continue until the position is filled. Prior to hiring, the final candidate will be required to pass a pre-employment background investigation. The start date is August 16, 2019. Additional information about the Department of Biological Sciences and this position can be found on our website at http://bsc.ua.edu. Applications from women and members of underrepresented groups in Biology are especially encouraged. The University of Alabama is an Equal Opportunity/Equal Access Employer and actively seeks diversity among its employees.

Kevin M. Kocot Assistant Professor, Department of Biological Sciences Curator of Invertebrates, Alabama Museum of Natural History The University of Alabama < https://www.ua.edu/ > 307 Mary Harmon Bryant Hall, Tuscaloosa, AL 35487 office 205-348-4052 <tel:205-348-4052> fax 205-348-4039 kmkocot@ua.edu | http://bsc.ua.edu/ "Kocot, Kevin" <kmkocot@ua.edu>

UArizona EcosystemGenomics

Quantitative/Theoretical Ecosystem Genomics University of Arizona Assistant Professor, Associate Professor, Full Professor - Open Rank

An emerging and fundamental challenge of modern biology is to understand how information encoded in the genes of organisms structures their phenotypic traits, their interactions with their abiotic and biotic environments, and ultimately, the functions of natural and managed ecosystems of which they are a part. The University of Arizona is assembling a cluster of outstanding faculty members to contribute to the development of a new program in Ecosystem Genomics. To complement and extend six hires to date in the cluster, we are

searching for a new colleague at the assistant or associate level (although strong candidates will be considered at any rank) to develop teaching and research programs to advance quantitative or theoretical approaches to ecosystem genomics.

Review begins 3 Dec 2018! Details and application at posting Number F21685 https://uacareers.com/postings/search **Note that the home Department is to be determined by the best fit for the candidate.(The posting is listed by the Department of Entomology, but the search is open Department).

Contacts for more information: Dr. Scott Saleska at saleska@email.arizona.edu Dr. Katrina Dlugosch at kdlugosch@email.arizona.edu

Katrina M. Dlugosch Associate Professor, Department of Ecology & Evolutionary Biology

Katrina Dlugosch <katrina.dlugosch@gmail.com>

UCalifornia LosAngeles QuantEvolutionaryBiol

Quantitative Ecologist or Evolutionary Biologist: Open rank faculty position

The Department of Ecology & Evolutionary Biology (EEB) at UCLA is searching for a quantitative biologist (open rank), in any area of ecology, evolution or behavior. This position will enhance EEBs strengths in theoretical biology and quantitative approaches in experimental and field research. We expect candidates to have or develop a robust research program to attract external funds, and to teach at the graduate and undergraduate levels with innovative pedagogical approaches. The teaching expectation includes a new undergraduate introductory course (Statistics of Biological Systems), emphasizing simulation-based approaches to problem solving. Necessary qualifications include a PhD degree in a relevant discipline and a strong background in quantitative methods.

Please direct inquires to quantsearch@eeb.ucla.edu. Submit application packages online through https://recruit.apo.ucla.edu/apply/JPF04204 and include the following: 1) cover letter 2) curriculum vita; 3) statement of research interests; 4) statement of teaching expertise; 5) statement of formal and informal activities to promote equity, diversity and inclusion; and 6) names of three referees. All items should be distinct documents. Individuals with a history of mentoring students

under-represented in the sciences are encouraged to apply and to describe their experience in a cover letter. The University of California seeks to recruit and retain a diverse workforce as a reflection of our commitment to serve the people of California, to maintain the excellence of the University, and to offer our students richly varied disciplines, perspectives and ways of knowing and learning. Complete applications must be submitted by January 3, 2019.

The EEB Department has 29 faculty with strengths in population ecology, evolutionary and conservation genomics, behavioral biology, plant biology, and phylogenetics and paleobiology. EEB also features a large graduate program, three undergraduate majors (Biology; Ecology, Behavior, and Evolution; Marine Biology), and two minors (Conservation Biology and Evolutionary Medicine). EEB faculty have affiliations or close ties with the Institute for Quantitative and Computational Biosciences and the Institute of Environment and Sustainability, the David Geffen School of Medicine, and the Fielding School of Public Health. EEB is also closely associated with UCLAs La Kretz Center for California Conservation Sciences, Stunt Ranch UC Reserve, the Mildred E. Mathias Botanical Garden, the Donald R. Dickey Collection of Birds and Mammals, and the Center for Education and Innovation and Learning in the Sciences.

UCLA has programs to assist in partner employment, childcare, schooling and other family concerns. For additional information, visit the UCLA Academic Personnel Office website (https://www.apo.ucla.edu/) or the UC Office of the Presidents website (http://www.ucop.edu/-).

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: UC Nondiscrimination & Affirmative Action Policy. (http://policy.ucop.edu/doc/4000376/-NondiscrimAffirmAct)

"Sanchez, Sheena" <ssanchez@lifesci.ucla.edu>

UCalifornia Merced LabAssist EvolModelling

Eco-evolutionary_modeling_lab_assistant.UC_Merced

Are you a biologist with skills in coding, or a computer science major with an interest in ecology?

Are you looking to gain experience before applying to a graduate program?

I am looking for a lab assistant to help with various ecological and eco-evolutionary modeling research projects. This may include an NSF-funded project modeling the impact of evolutionary processes for climate-change responses in forests, as well as other statistical or simulation modeling projects, depending on the needs of the lab and the interests and skills of the lab assistant. Duties of the position include modifying model code and parameters, running model simulations, and writing up results. The assistant will be an author on papers resulting from this work. The assistant may also assist with other lab tasks if needed, or if the assistant wishes to gain experience with other aspects of forest research. These tasks could include assisting with fieldwork in the Sierra Nevada, literature searches, inventorying lab equipment, or helping undergraduates with data entry or analysis.

The position is for 12 months, beginning in January 2019.

Pay: $17.29/hour, or $2,766.4/month, plus benefits. Position is full-time (40 hrs/wk).

I am also planning on recruiting a PhD student to work on the forest modeling project, starting August 2019 (GSR funding through NSF grant). The lab assistant is welcome to apply for this position; that would entail applying to UC Merced through the QSB or ES graduate groups by the standard date and, if accepted, resigning from the lab assistantship at the time of transition to the graduate program.

Essential qualifications/skills include: Â A bachelor's degree in biology, environmental science, computer science, or related area Â Experience with statistical program R Â Coding skills in C++ and/or Java Â Communication skills to convey information accurately, clearly and concisely Â Ability to work independently with high degree of accuracy Â Ability to maintain clear records Desirable (but not required) qualifications/skills include: Â

ArcGIS experience Â Some background in plant biology or forest modeling.

How to apply: The position code is SS-NRI8520A. Please complete a UC Merced application (https://hr.ucmerced.edu/sites/-hr.ucmerced.edu/files/page/documents/-uc_merced_employment_application_form.pdf) and email along with 1-3 page resume/CV and cover letter (explaining your interest in and qualifications for the position) to ucmcareers@ucmerced.edu . The application should include names and contact information for two references. Please indicate in the subject line of your email the Position Title and Position Number you are applying for. For questions regarding how to apply please email ucmcareers@ucmerced.edu or call 209-228-8247.

Review of applications will begin November 20 and will continue until the position is filled. To ensure full consideration, please apply before December 1.

For more information, please contact Dr. Emily Moran at emoran5@ucmerced.edu or visit our lab webpage https://sites.google.com/site/moranplantlab/ UC Merced is the newest school of the University of California system (http://www.ucmerced.edu/). The university is small (<7,000 students), but diverse and rapidly growing. Merced is a town of 80 thousand located in the Central Valley of California. It is conveniently located 1 hour north of Fresno (the closest airport), 2 hours east of Berkeley and San Francisco, 2 hours south of Davis and Sacramento, and 2 hours west of Yosemite National Park. Cost of living is low. The area has a Mediterranean climate, with hot, dry summers and cool, rainy winters.

The University of California, Merced is an equal opportunity employer with a strong institutional commitment to the achievement of diversity among its faculty, staff, and students.

UC Merced is also a smoke and tobacco free workplace. Information and the Smoke and Tobacco Free policy is available at http://smokefree.ucmerced.edu Emily Moran <emoran5@ucmerced.edu>

UCalifornia SantaBarbara Evolution

Assistant Level Faculty Position V Evolutionary Biology V Department of Ecology Evolution and Marine Biology

The Department of Ecology, Evolution, and Marine Biology (EEMB) at the University of California, Santa Barbara invites applications for a tenure-track faculty position at the level of Assistant Professor, with an anticipated start date of July 1, 2019. The Department is looking for exceptional individuals who articulate and address questions of general importance in any area of evolutionary biology.

Responsibilities of faculty members include teaching at undergraduate and/or graduate levels, recruitment, supervision, and mentorship of graduate students, participation in university service and professional activities, and the development of an externally funded and internationally recognized research program. PhD required at the time of application in biology or a related field. A demonstrated record of excellence in research, and a record of (or potential for) outstanding teaching are desired. Successful candidates will have a record of collaborative research, and will be able to leverage synergies within EEMB and the UCSB campus. The University is especially interested in candidates who can contribute to the diversity and excellence of the academic community through research, teaching and service as appropriate to the position.

Applications should be submitted electronically, and must include: - Cover letter - Curriculum vitae - Statement of research (2-3 pages preferred) - Statement of teaching (1-2 pages preferred) - 1-3 sample publications - Applicants will need to supply contact information for 3-4 references. We will contact referees to submit letters for a subset of applicants in December.

We strongly encourage all applicants to submit an optional statement of contributions to diversity, which would include formal and informal activities to promote diversity and inclusion in STEM fields.

Applications received by November 30, 2018 will be given priority consideration, but the position will remain open until filled. To apply please visit https://-recruit.ap.ucsb.edu/apply/JPF01381 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 status, protected veteran status, or any other characteristic protected by law.

Todd Oakley <oakley@lifesci.ucsb.edu>

UCincinnati 2 CompBiol HostMicrobeInteractions

Assistant Professor Positions in Host Microbe Interactions / Computational Biology

The Department of Biological Sciences at the University of Cincinnati seeks TWO tenure-track Assistant Professors to begin fall semester 2019 studying (1) host-microbe interactions with an emphasis on cell biology or immunology. This position entails research ranging from antagonistic to mutualistic interactions, focusing on vertebrate, invertebrate or plant hosts. Topics may include, but are not limited to, manipulation of host biology or behavior by microbes, microbial shifts in hosts in relation to environmental change, and host-microbe interactions during immune development. (2) computational biology. We seek a colleague who develops and uses computational techniques to address fundamental questions in biology. We expect this candidates' research program to integrate theory with empirical study. Successful candidates for both positions would be expected to develop and sustain an independent, externally funded, internationally recognized research program, teach undergraduate and graduate courses based on the candidates' area of expertise, and contribute to the mission of the department through service.

The Department of Biological Sciences is a collaborative community of researchers and educators with strengths in Sensory Biology, Behavior, and Evolution (SBBE) and Environmental Change and Biological Resilience (ECBR). It is housed in a newly renovated building with modern offices and labs and a new greenhouse. It is also supported by various research facilities on and off campus. The UC Center for Field Studies provides researchers with field opportunities only a short 25-minute drive from campus. UC also houses the Margaret H. Fulford Herbarium, with over 125,000 specimens of vascular and nonvascular plants, lichens, and fungi. The Department has strong collaborative associations with the UC Digital Scholarship Center, US EPA, Cincinnati Children's Hospital, Cincinnati Museum Center, Cincinnati Zoo and Botanical Garden, Cincinnati Public Schools, and other institutions that provide opportunities for collaborative research, outreach, and education. The Ohio Supercomputing Center provides researchers a state of the art computing environment and several other high-performance computing resources are available on campus.

The University of Cincinnati is a premier, public, urban research university; ranked as one of America's top 26 public research universities by the National Science Foundation. U.S. News has ranked UC in the Top Tier of America's Best Colleges. The Chronicle of Higher Education calls UC a 'research heavyweight'. Forbes, Delta Sky and Travel + Leisure magazines have named UC one of the most beautiful campuses. Cincinnati is a vibrant city on the banks of the Ohio River. The region is home to year-round cultural and entertainment activities. The Hamilton County Parks system provides extensive opportunities for outdoor activities.

Minimum Qualifications A PhD is required for this position. Application Process

* Applications must be submitted online at https://-jobs.uc.edu (search requisition #34747 for host-microbe; search requisition #34746 for computational biology). * To apply, submit a cover letter, curriculum vitae, statement of research interests, and statement of teaching philosophy using the additional documents feature in our application system. * Additionally, please arrange for three letters of recommendation and advise your recommenders to send them directly to: meurerrm@ucmail.uc.edu * As part of the application process the applicant will be asked to provide a separate one-page statement addressing how the candidate's past or potential contributions to diversity and inclusion will advance UC's commitment to Inclusive Excellence. * Review of applications will begin December 7, 2018 and continue until the position is filled.

FOR ALL FACULTY HIRES OFFICIAL ACADEMIC TRANSCRIPTS WILL BE REQUIRED AT THE TIME OF HIRE

The University of Cincinnati, as a multi-national and culturally diverse university, is committed to providing an inclusive, equitable and diverse place of learning and employment. As part of a complete job application you will be asked to include a Contribution to Diversity and Inclusion statement.

As a UC employee, and an employee of an Ohio public institution, if hired you will not contribute to the federal Social Security system, other than contributions to Medicare. Instead, UC employees have the option to contribute to a state retirement plan (OPERS, STRS) or an alternative retirement plan (ARP).

The University of Cincinnati is an Affirmative Action

/ Equal Opportunity Employer / M / F / Veteran / Disabled.

"Morehouse, Nathan (morehonn)" <morehonn@ucmail.uc.edu>

UCincinnati HostMicrobeInteractions

Assistant Professor - Biology

(Host Microbe Interactions)

Department of Biological Sciences

UNIVERSITY of CINCINNATI

The Department of Biological Sciences at the University of Cincinnati seeks a tenure-track Assistant Professor studying host-microbe interactions with an emphasis on cell biology or immunology to begin fall semester 2019. This position entails research ranging from antagonistic to mutualistic interactions, focusing on vertebrate, invertebrate or plant hosts. Topics may include, but are not limited to, manipulation of host biology or behavior by microbes, microbial shifts in hosts in relation to environmental change, and host-microbe interactions during immune development. The successful candidate would be expected to develop and sustain an independent, externally funded, internationally recognized research program, teach undergraduate and graduate courses based on the candidates' area of expertise, and contribute to the mission of the department through service.

The Department of Biological Sciences is a collaborative community of researchers and educators with strengths in Sensory Biology, Behavior, and Evolution (SBBE) and Environmental Change and Biological Resilience (ECBR). It is housed in a newly renovated building with modern offices and labs and a new greenhouse. It is also supported by various research facilities on and off campus. The UC Center for Field Studies provides researchers with field opportunities only a short 25 minute drive from campus. UC also houses the Margaret H. Fulford Herbarium, with over 125,000 specimens of vascular and nonvascular plants, lichens, and fungi. The Department has strong collaborative associations with the UC Digital Scholarship Center, US EPA, Cincinnati Children's Hospital, Cincinnati Museum Center, Cincinnati Zoo and Botanical Garden, Cincinnati Public Schools, and other institutions that provide opportunities for collaborative research, outreach, and education. The Ohio Supercomputing Center provides researchers a state of the art computing environment and several other High-Computing Resources are available on campus.

The University of Cincinnati is a premier, public, urban research university; ranked as one of America's top 26 public research universities by the National Science Foundation. U.S. News has ranked UC in the Top Tier of America's Best Colleges. The Chronicle of Higher Education calls UC a "research heavyweight". Forbes, Delta Sky and Travel + Leisure magazines have named UC one of the most beautiful campuses. Cincinnati is a vibrant city on the banks of the Ohio River. The region is home to year-round cultural and entertainment activities. The Hamilton County Parks system provides extensive opportunities for outdoor activities.

Minimum Qualifications

A PhD is required for this position.

Application Process

Â Applications must be submitted online at https://jobs.uc.edu (search requisition #34747).

Â To apply, submit a cover letter, curriculum vitae, statement of research interests, and statement of teaching philosophy using the additional documents feature in our application system.

Â Additionally, please arrange for three letters of recommendation and advise your recommenders to send directly to: meurerrm@ucmail.uc.edu

Â As part of the application process the applicant will be asked to provide a separate one-page statement addressing how the candidate's past or potential contributions to diversity and inclusion will advance UC's commitment to Inclusive Excellence.

Â Review of applications will begin December 7, 2018 and continue until the position is filled.

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As a UC employee, and an employee of an Ohio public institution, if hired you will not contribute to the federal Social Security system, other than contributions to Medicare. Instead, UC employees have the option to contribute to a state retirement plan (OPERS, STRS) or an alternative retirement plan (ARP).

The University of Cincinnati is an Affirmative Action / Equal Opportunity Employer / M / F / Veteran / Disabled.

"Rollmann, Stephanie (rollmasm)" <rollmasm@ucmail.uc.edu>

UColorado Denver EvolutionaryPhysiology

Note that applicants with research programs in comparative physiology or evolutionary physiology are encouraged to apply to the position below.

Assistant Professor - Physiology Systems Biology

The Department of Integrative Biology at the University of Colorado Denver seeks to hire a tenure-track faculty member in Physiology at the rank of Assistant Professor. The department seeks a colleague that studies physiological systems and processes at multiple levels of biological organization, using cutting-edge omic (e.g. genomic, transcriptomic, proteomic, metabolomic) approaches and other molecular systems biology tools. Preference will be given to those who engage undergraduate and graduate students in basic research within a strong integrative biology framework. We are actively seeking faculty whose research, teaching, and service demonstrate their commitment to inclusion and equity of under-represented individuals in STEM.

The successful candidate is expected to establish a productive, externally funded research program, and to excel in inclusive teaching and mentoring to a diverse undergraduate and graduate student population. Candidates will teach courses in their area of expertise, including courses relevant to medical and allied health fields (e.g., Human Physiology, Comparative Physiology, Anatomy, Endocrinology, Neurobiology, Reproductive Biology, Immunology, Toxicology, etc.).

Competitive applicants will contribute to the CU Denver and the Department of Integrative Biology mission to promote diversity, equity, and inclusion in STEM education. Our student body of 15,000 is diverse: for our undergraduates, 52% percent are women, 44% are students of color, and 51% of freshmen are 1st generation students. CU Denver is also listed on G.I. Jobs 'Military Friendly Schools' list. CU Denver is a member of The National Science Foundation's Louis Stokes Alliances for Minority Participation, and a recipient of a Howard Hughes Medical Institute Inclusive Excellence Grant for enhancing equity in STEM education. Diversity and inclusion are embedded in all aspects of campus life, described further at: http://www.ucdenver.edu/about/-departments/odi/diversitymatters . The Department of Integrative Biology is on a growth trajectory, and offers competitive start-up packages and modern research facilities. Sponsored research is supported by a diverse array of local, state, and federal partners. The Biology Major is the largest undergraduate program in the College of Liberal Arts and Sciences. Our PhD and Masters programs in Integrative and Systems Biology encourage multi-disciplinary faculty participation from across the CU Denver Campus, Denver Botanic Gardens, Denver Museum of Nature and Science, and the Anschutz Medical Campus.

The University of Colorado Denver is Colorado's only public urban research university. Our close connection with the nearby Anschutz Medical Campus offers access to state-of-the-art core facilities and cutting-edge medical research. CU Denver serves 15,000 students, and offers more than 100 degree programs across 8 schools and colleges. Our campus is located in downtown Denver, next to a vibrant commercial and cultural district, three major professional sports venues, the Denver Convention Center, the Performing Arts Center, and city and state government offices.

Review of applications begins 30 November, 2018 and continues until filled.

For a full position description, additional details, and information on how to apply, visit the CU Careers website (refer to requisition ID: 14985): https://cu.taleo.net/-careersection/2/jobdetail.ftl?job985&lang=en Questions regarding the position should be directed to Chris Miller (chris.miller@ucdenver.edu).

"Miller, Chris" <CHRIS.MILLER@UCDENVER.EDU>

UConnecticut ResTech4-6mth EvolutionImmuneResistance

One Research Technician position are available in Dr. Daniel Bolnicks research group in the Department of Ecology and Evolution at the University of Connecticut. This is a short-term (4 month) position, to begin in February or March 2019.

Tasks: The technician will be funded by a National Institutes of Health grant to study immunology and genetics of a vertebrate hosts resistance to a helminth parasite,

and parasite evasion of host immunity. Previous work by the Bolnick lab identified naturally evolved variation in stickleback fishes resistance to a severe cestode parasite (Weber et al 2017 American Naturalist; Weber et al 2017 Proceedings of the National Academy of Sciences). The technician will contribute to this research by assisting with fish care, experimental infection and immune challenge assays. The goal is to continue identifying the genetic basis of co-evolution between the cestode and stickleback. An intensive experiment is planned for March through June, possibly longer, and a technician is needed to assist existing postdocs and technicians with the study.

Qualifications: Applicants must have a BS, BA, or MA degree in biology or a closely related field. Prior research experience is essential, and previous work with fish, parasites, immunology, or genetics is beneficial. Previous research experience and work records should demonstrated a commitment to research, good work ethic, lab skills, and organizational ability.

Applications should electronically submit a single pdf file containing the following, in order: 1) Coverletter, including a summary of research experience and career goals 2) CV 3) List of three references, with contact information (email, telephone, and mailing address). We will request letters directly from these references, after identifying top candidates.

The application file should be emailed to Dr. Daniel Bolnick (daniel.bolnick@uconn.edu). Include the subject line "Research Technician Application: <YOUR NAME>". Applications must be received by December 20 2018 for full consideration, though late applications may be considered.

For questions about this position, please email Dr. Bolnick (daniel.bolnick@uconn.edu). For information about the Bolnick Lab visit the lab website (https://-bolnicklab.wordpress.com), lab photostream <https://-www.flickr.com/photos/98765823@N08/albums),> , and Dr. Bolnicks Google Scholar page <

https://scholar.google.com/citations?hl=-en&userÏwxm0AAAAAJ&view_op=list_works&sortby= pubdate >.

The University of Connecticut is an Equal Opportunity Employer. Applicants with questions about disability services can privately discuss their application with the University of Connecticut Disability Services Office. The Bolnick Lab is simultaneously searching for a postdoctoral researcher.

Dr. Daniel I. Bolnick Editor-In-Chief, The American Naturalist Professor, Ecology and Evolutionary Biology

PLEASE   NOTE   NEW   ADDRESSES daniel.bolnick@uconn.edu

MAIL TO: Department of Ecology and Evolutionary Biology 75 N. Eagleville Road, Unit 3043 University of Connecticut Storrs, CT 06269-3043, USA

Office Phone: 860-486-3156 Lab Phone: 860-486-3937 Cell Phone: 512-809-6217

Office:PBB 305C Lab: PBB 317&319; ATW 232, 234, 236 Lab website: https://bolnicklab.wordpress.com daniel.bolnick@uconn.edu

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UEssex EvolutionChromatin

LECTURER / ASSOCIATE PROFESSOR IN GENOMICS, School of Biological Sciences, University of Essex

We are opening two Lecturer (Assistant Professor) positions in chromatin biology and epigenetics available at University of Essex, to join our expanding Genomics section (https://genomics.essex.ac.uk/).

Applications should be made via the University system:

https://vacancies.essex.ac.uk/-tlive_webrecruitment/wrd/run/-ETREC107GF.open?VACANCY_IDP5937ILEe&WVID18109NEm were you can find more details. The official description of the post is pasted below.

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The School of Biological Sciences is large and diverse and provides a vibrant research and teaching environment with a strong collegiate culture. We have a global reputation for our research: two-thirds of our research was rated as 'world leading' or 'international excellent' in REF 2014.

Duties of the Post

The University of Essex School of Biological Sciences is recruiting two lecturers to join its Genomics and Computational Biology group. Founded in 2015, the group benefits from excellent lab and computational facilities and has had remarkable success in securing funding. Applicants are welcome from all disciplines relevant to genomics, but we are particularly interested in applicants that build on our strengths in epigenetics and chromatin, and social and environmental epigenomics.

The postholders will be required to conduct internationally excellent research and demonstrate this through

publications in high quality peer-reviewed journals and other outlets. The post-holders will be expected to develop and execute a strategy for raising research income to sustain an active, internationally competitive research programme. This should be in the context of developing a network of national and international collaborations. As part of the School's research-led teaching ethos, the postholders will be expected to develop innovative learning materials, teach at undergraduate and postgraduate level and supervise PhD students in the areas of genetics, genomics and computational biology. The School puts a high value on collegiality that helps to foster the smooth running of our academic community. Therefore, the postholders should expect to be assigned administrative duties from time to time as requested by the Head of School or their nominee.

Appointment will be made as Lecturer (Associate Professor).

Qualifications/Skills Required

The postholders will have a PhD in a relevant discipline and a demonstrable track record of research at postdoctoral level in an aspect of Genomics and Computational Biology aligned to the research group's core themes. Applicants will be required to demonstrate how their experience complements and extends the relevant research in the School and provide evidence of successful collaborative research with colleagues in their home institution and a network of researchers nationally and/or internationally. The postholders must be excellent communicators and be able to explain their research to audiences ranging from their peers to the general public. The postholders should have the necessary interpersonal skills that will allow effective interaction with their colleagues, our students and the general public.

We particularly welcome applications from those from an ethnic minority as they are underrepresented in the School of Biological Sciences.

At the University of Essex internationalism is central to who we are and what we do. We are committed to being a cosmopolitan, internationally-oriented university that is welcoming to staff and students from all countries and a university where you can find the world in one place.

Please use the Apply button to read further information about this role including the full job description and person specification which outlines the full duties, skills, qualifications and experience needed for this role. You will also find details of how to make your application here. Our website http://www.essex.ac.uk contains more information about the University of Essex. If you have a disability and would like information in a different format, please telephone (01206) 876559.

Antonio Marco <amarco.bio@gmail.com>

UFlorida InsectEvolution

Lecturer position in Insect Biology at the Entomology & Nematology Department at the University of Florida, Gainesville, FL

Are you an Entomologist AND an Educator? We want you to join our faculty and bring enthusiasm and experience with insects, research and education to our stellar and growing undergraduate Entomology program.

Description: This is a 12-month, permanent, lecture-track faculty position (non-tenure accruing) that will be 100% teaching in the Entomology and Nematology Department in the College of Agricultural and Life Sciences (CALS) within the Institute of Food and Agricultural Sciences (IFAS) at the University of Florida (UF) in Gainesville, Florida. Primary duties will include development and teaching of undergraduate entomology courses as well as supporting and promoting our growing undergraduate program through student advising, programmatic assessment and recruiting. Position responsibilities include working with other faculty to coordinate Classroom Undergraduate Research Experiences (CURE courses) with Nature of Science (NOS) content and authentic data collection. Specific courses taught will be dependent upon candidate interests and expertise as well as departmental needs. Preference will be given to candidates with experience and interest in the scholarship of teaching and learning.

Duties: The successful candidate will engage in scholarly activities related to instruction, including teaching undergraduate and/or graduate courses, advising and mentoring undergraduate and graduate students, participating in curriculum revision and enhancement, seeking funding for the teaching program, supervising undergraduate and graduate research and creative work, publishing teaching-related scholarship, producing learning tools, and engaging in professional development activities related to teaching and advising.

Qualifications: A MS or PhD degree (foreign equivalent acceptable) in entomology, nematology, biology, or a closely related discipline is required. Candidates should have demonstrated skills in verbal and written communication and must be enthusiastic about interacting with and supporting undergraduate students.

Timeline: For full consideration, candidates should apply and submit additional materials by December 5, 2018. The position will remain open until a viable applicant pool is determined. This position is available as early as January 1, 2019, and will be filled as soon as an acceptable applicant is available.

Apply: More details and application submission link at: https://apply.interfolio.com/57413   Questions can be directed to Dr. Andrea Lucky, Search Committee Chair, Entomology & Nematology Department, University of Florida 32611, alucky@ufl.edu.

"Miller, Christine W." <cwmiller@ufl.edu>

UFlorida QuantitativeInsectEvolution

Assistant Professor: Quantitative Insect Ecology

The Entomology and Nematology Department at the University of Florida invites applications for a tenure-track position as Assistant Professor of Quantitative Insect Ecology. Candidates must have a Ph.D. or equivalent in the biological sciences or related fields. A record of outstanding achievement and a promising research program are more important than the specific research area within the field of quantitative ecology. The successful candidate will establish a vigorous, externally funded, and internationally-recognized research program. The appointee will also contribute to a growing reputation in the Department for excellence in teaching undergraduate and graduate students. Candidates must have evidence of collaborative research; procurement of extramural funding, a strong commitment to teaching; and promotion of a diverse educational and professional environment.

This 9-month tenure-accruing position will be 50% teaching (College of Agricultural and Life Sciences) and 50% research (Florida Agricultural Experiment Station). The Entomology and Nematology Department (http://entnemdept.ufl.edu/) has broad teaching, research, and extension programs with 32 faculty members located on main campus in Gainesville and 38 faculty located at 11 Research and Education Centers throughout the state.

The full position description is available online at http://apply.interfolio.com/57414, and applications can be uploaded through this site.

Questions can be directed to Dr. Christine W. Miller, Search Committee Chair, Entomology & Nematology Department, University of Florida 32611, cwmiller@ufl.edu.

The University of Florida (http://www.ufl.edu) is a Land-Grant, Sea-Grant, and Space-Grant institution, encompassing virtually all academic and professional disciplines, with an enrollment of more than 53,000 students. Florida boasts a diversity of fauna and flora common to both southern temperate and subtropical climates and is replete with springs, rivers, backwater streams, lakes, freshwater and saltwater marshes, mangrove fringes, cypress swamps, hardwood hammocks, sandhills, scrub, pine flatwoods, and rangeland. Gainesville is a small city with culture and character directly linked to the university. Attributes of Gainesville include proximity to many natural areas and many cultural and historical landmarks. Cost of living in Gainesville is slightly below the national average, making it an attractive place to live.

Christine W. Miller Associate Professor | Entomology & Nematology Department University of Florida, USA email: cwmiller@ufl.edu phone: (352) 273-3917 web: www.MillerLab.net facebook: @bugweapons

"Miller, Christine W." <cwmiller@ufl.edu>

UGuelph TeachingEvolution

The Department of Integrative Biology seeks to appoint a tenure track faculty member in Biology Teaching and Educational Innovation at either the Assistant Professor or Associate Professor level. Candidates for the position should exhibit demonstrated expertise in the scholarship of science education and be capable of advising graduate students. In addition, applicants should have a demonstrated record of excellent, innovative teaching in the Department's disciplines of ecology, evolution, and/or physiology at the university level. It is expected that the successful candidate will engage in the design and delivery of courses that vary in format, level, and size (including large classes).

The successful candidate will be expected to take a leading role in the ongoing development and delivery of innovative educational programs at the undergraduate and graduate level and in sharing knowledge on educational best practices with colleagues in the department. In addition, the successful candidate should be able to catalyze educational scholarship efforts among members of the department, and to develop and maintain collaborations across departments at the University

of Guelph and elsewhere. Applicants are therefore encouraged to provide clear evidence of leadership, innovation, collaboration, and interdisciplinarity in relation to biology teaching and educational scholarship. The overall distribution of effort allotted to teaching, research/scholarship, and service is negotiable but it is expected that the successful candidate will engage in the delivery of 2 or more courses per year.

Application Process A Ph.D. in biology is required. Salary will be commensurate with qualifications and experience. Applicants should submit their materials no later than Friday, November 30, 2018. This should include a curriculum vitae, a teaching dossier, a research/scholarship plan, plus the names of three referees, to be submitted electronically (merged into a single PDF) by email and addressed to:

Dr. T. Ryan Gregory Professor and Chair Department of Integrative Biology University of Guelph Guelph, Ontario, N1G 2W1 CANADA Email: ibchair@uoguelph.ca

All qualified applicants are encouraged to apply; however, Canadians and permanent residents will be given priority.

The University of Guelph acknowledges the Attawandaron people on whose traditional territory the University of Guelph resides and offer our respect to our Anishinaabe, Haudenosaunee and Métis neighbours as we strive to strengthen our relationships with them.

At the University of Guelph, fostering a culture of inclusion is an institutional imperative. The University invites and encourages applications from all qualified individuals, including from groups that are traditionally underrepresented in employment, who may contribute to further diversification of our Institution.

http://www.uoguelph.ca/facultyjobs/postings/ad18-66.shtml   Ryan Gregory Integrative Biology Chair <ibchair@uoguelph.ca>

UHawaii Manoa EvolutionaryEntomology

Please find pasted below our department's ad for an entomologist. We specifically include 'evolution' in the job description and would really like candidates with an evolutionary background to consider the position.

Title: Assistant Professor in Entomology (I3)

Hiring Unit: University of Hawaii, Manoa, College of

Tropical Agriculture and Human Resources, Department of Plant and Environmental Protection Sciences

Position FTE: 60% Instruction, 40% Research

Location: Manoa, Honolulu, HI

Closing date: Continuous ' application review begins

Monthly Type: 9 month

Tenure Track: Tenure track

Full Time/Part Time: Full Time

Temporary/Permanent: Permanent

Other Conditions:

To begin approximately *Aug 2019 *or soon thereafter. For best consideration, all application materials should be received by *Jan 15, 2019.*

Duties and Responsibilities:Contribute to an excellent departmental undergraduate teaching program and Entomology graduate program by teaching the following courses: PEPS 250 (World of Insects), General Entomology (PEPS 363 and 363L) yearly; Foundations of Pest Management (PEPS 421) every other year; an appropriate graduate course identified as meeting program needs, such as Insect Physiology, or Insect Identification (taxonomy) every other year; and sharing responsibility periodically for a discussion/seminar and a departmental graduate seminar.

Contribute to program assessment efforts, advise and mentor graduate students, develop a successful research program in fields including but not limited to evolution, management, ecology, physiology or behavior of insects.

Provide service to the college, university, and community, and perform other faculty duties as required.

Minimum Qualifications:

Earned doctorate with research experience in Entomology as evidenced by publications in peer-reviewed journals. Successful experience in instruction at the college level, as evidenced by written or web-based course materials, reports, references, and/or positive student evaluations.

Desirable Qualifications:

Research experience with insects as evidenced by publications in peer-reviewed journals. Experience in course and/or program development, and assessment. Demonstrated success in obtaining extramural funding. Evidence of self-improvement in the area of instruction, such as participation in relevant courses, seminars, or other programs.

To Apply:

Submit the following to the address listed below: 1) Cover letter indicating how you satisfy the minimum and desirable qualifications; 2) curriculum vitae; 3) official university transcripts (copies accepted, however official transcripts will be required upon hire); and 4) names, addresses, phone numbers, and e-mail addresses of three persons who will provide confidential letters of reference.

Application address:

Search Committee Chair, Department of Plant and Environmental Protection Sciences, College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa, 3150 Maile Way, Honolulu, HI 96822.

Inquiries: Dr. Koon Hui Wang; koonhui@hawaii.edu

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

Employment is contingent on satisfying employment eligibility verification requirements of the Immigration Reform and Control Act of 1986; reference checks of previous employers; and for certain positions, criminal history record checks.

In accordance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, annual campus crime statistics for the University of Hawaii may be viewed at: http://ope.ed.gov/security/, or a paper copy may be obtained upon request from the respective UH Campus Security or Administrative Services Office.

Daniel Rubinoff <rubinoff@hawaii.edu>

UHawaii Manoa PlantGenomics

Title: Assistant Professor (Plant Genomes) Position Number: 0085414 Hiring Unit: College of Natural Sciences - Department of Botany Location: University of HawaiÂi at MÃ noa Date Posted: November 15, 2018 Closing Date: Continuous - application review begins December 8, 2018 Salary Information: Commensurate with qualifications and experience. Monthly Type: 9 Month Tenure Track: Tenure Full Time/Part Time: Full Time

Department of Botany, invites applications for a full-time, general funds, tenure track, faculty position, pending position clearance and availability of funds. Start date is approximately August 1, 2019 or as soon thereafter as possible. The University of HawaiÂi is a Carnegie doctoral/research-extensive university with a strong emphasis on research and graduate education. The Department offers B.A., B.S., M.S., and Ph.D. degrees in Botany. For more information on the department, please visit www.botany.hawaii.edu/. It is anticipated that concurrent with a planned Botany, Microbiology, and Biology merger into a School of Life Sciences by the end of 2019, novel curricula and research collaborations are forthcoming. Duties and Responsibilities Research: We are searching for a highly creative and interactive scholar who works at the genome scale to address questions about the ecology and evolution of plants, algae, or fungi. We welcome candidates who use emerging sequencing and informatics tools to work on non-model systems, particularly organisms native to, or naturalized in, Hawai'i and the Pacific. Research using genome or exome data, or gene regulatory mechanisms related to population connectivity, speciation, adaptation, species interactions or conservation are particularly encouraged to apply. Experience or interest in working with herbarium, archeological or other types of preserved specimens is welcomed. Curation: Successful candidates will assume curation of the Joseph F. Rock Herbarium (HAW), which serves as the official university repository for botanical plant, algal, fungal, and lichen accessions. The herbarium comprises approximately 50,000 dried plant specimens, with particular emphasis on vascular plants of Hawaii and the Pacific. This work has been supported with student assistance, and we anticipate that curation duties will comprise approximately 10% of effort.

Teaching: Principle teaching duties will include plant systematics, and other courses as assigned, including developing novel courses in topics related to expertise including *omics based approaches to plant biology.

Additional duties: Additional duties include supervising student independent study/research activities; training and mentoring undergraduate and graduate students; serving on departmental, college, and university committees; rendering service to the professional and lay community relevant to the individual's academic specialty; participating in curriculum development activities such as developing course materials and special instructional methods; participating in graduate committees; developing an externally funded research program leading to publication in leading scholarly journals; performing

related tasks as assigned.

About Us: The University of Hawai'i is an exciting place to study plant genomes. Our campus boasts two arboreta, and state of the art high performance computing, sequencing, imaging, metabolomics, and flow cytometry core facilities. A new life sciences building is under construction. Our student body consistently ranks among the top ten public universities in terms of racial and ethnic diversity. Our access to diverse and unique field sites is unrivaled. Minimum Qualifications Ph.D. in Botany, Biology, or a closely related field. Expertise in genomics of plants, algae, and/or fungi. The ability to teach undergraduate and graduate courses in the life sciences and one or more aspects of genomics research. Evidence of research productivity and publication of scholarly materials. Post-Doctoral research and/or teaching experience. Poise and good address for meeting and conferring with others.

Desired Qualifications Track record of and interest in collaborative research. Interest in island biology. Ability to work in an ethnically rich, multicultural environment. To Apply: Candidates should submit a letter of application, statements of research interests and teaching philosophy, a sample research paper, a current vita, and names of at least three references via Academic Jobs Online: https://academicjobsonline.org/ .

Direct inquiries to Anthony Amend: amend@hawaii.edu The University of HawaiÃ≫i is an equal opportunity/affirmative action institution and is committed to a policy of nondiscrimination on the basis of race, sex, gender identity and expression, age, religion, color, national origin, ancestry, citizenship, disability, genetic information, marital status,

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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

UMassachusetts Amherst MicrobialEvolution

The Department of Biology at the University of Massachusetts, Amherst invites applications for a tenure-track position at the rank of Assistant Professor. The successful candidate will also be a part of the Institute for Applied Life Sciences (IALS), which has a primary goal of developing translational research programs, fostering interactions with industry, and training of the life sciences workforce.

We are seeking a researcher to establish a program that is focused on microbiomes, or on microbiome-host interactions, and that will lead to improvements in human health. The focus may be on any or all components of the microbiome: bacteria, fungi, archaea, protists, and/or viruses, as they relate to specific diseases or dysfunction in human health. The successful candidate will be able to take full advantage of substantial investments in campus infrastructure and core facilities (seehttp://www.umass.edu/ials/core-facilitiesfor more details). They will join the Biology department, a group of scientists with diverse interests, including developmental biology, neurobiology, animal physiology, cell biology, microbiology, genomics, evolution, and ecology. They will also work with an interdepartmental group of colleagues united around the theme of 'Microbiome, Microbes & Infectious Diseases' at the IALS Models to Medicine Center.

Requirements: Qualified candidates must have a Ph.D. or an equivalent doctoral degree, postdoctoral experience, and outstanding potential to build a vibrant, active research program and to teach at both the undergraduate and graduate level.

Application Instructions: Review of applications will begin on December 17, 2018 and will continue until the position is filled. Applications should include a cover letter, CV, research plan, teaching statement, contact information for three references, and a Statement of Contribution to Diversity, Equity and Inclusion. The Diversity Statement should identify past experiences and future goals. These contributions may result from lived experiences, scholarships, and/or mentoring, teaching, and outreach activities (https://www.cns.umass.edu/-diversity-equity-inclusion).

Online applications can be uploaded at the following link:

https://secure.dc4.pageuppeople.com/apply/-822/gateway/Default.aspx?c=app... <https://-secure.dc4.pageuppeople.com/apply/822/gateway/-Default.aspx?c=apply&sJobIDsI6375&SourceTypeID euro 1&sLanguage=en-us>

/UMass Amherst is committed to a policy of equal opportunity without regard to race, color, religion, gender, gender identity or expression, age, sexual orientation, national origin, ancestry, disability, military status, or genetic information in employment, admission to and participation in academic programs, activities, and services, and the selection of vendors who provide services

or products to the University. To fulfill that policy, UMass Amherst is further committed to a program of affirmative action to eliminate or mitigate artificial barriers and to increase opportunities for the recruitment and advancement of qualified minorities, women, persons with disabilities, and covered veterans. It is the policy of the UMass Amherst to comply with the applicable federal and state statutes, rules, and regulations concerning equal opportunity and affirmative action./

We are seeking talented applicants qualified for an assistant professor position. Under exceptional circumstances, highly qualified candidates at other ranks may receive consideration.

Jeffrey Blanchard Associate Professor, Biology Graduate Program in Molecular and Cellular Biology Graduate Program in Organismal and Evolutionary Biology University of Massachusetts Amherst, MA 01003 Morrill Science Center II Office 409; Lab 411 413-577-2130 http://www.bio.umass.edu/micro/blanchard/ http://www.twitter.com/jeffsmicrobiome   Jeffrey Blanchard <jeffb@bio.umass.edu>

UMississippi PlantEvolution

Assistant Professor V Integrative Plant Biologist

The Department of Biology at the University of Mississippi invites applications for a tenure-track Assistant Professor position in Integrative Plant Biology. We seek candidates who investigate fundamental molecular/cellular mechanisms of how plants sense and respond to their environment, and whose research integrates across multiple scales. Areas of research interest include but are not limited to plant growth, movement, light and touch-induced signaling, long-distance communication, defense, symbiosis, and stress response. The successful candidate will be expected to develop an innovative, externally-funded research program, train graduate students, and teach courses in their area of expertise. This position will complement and extend existing departmental strengths (http://biology.olemiss.edu) in symbiosis and species interactions, cell and molecular biology, neuroscience and behavior, or biodiversity and conservation biology; and may capitalize on the availability of the Center for Biodiversity and Conservation, the School of Pharmacy (https://pharmacy.olemiss.edu/), the University of Mississippi Field Station (http://fieldstation.olemiss.edu), and/or the US Department of Agriculture Natural Products Utilization Research

(https://www.ars.usda.gov/southeast-area/oxford-ms/natural-products-utilization-research/). The successful candidate may also interact with cross-disciplinary researchers to solve key, grand challenges through the Big Data, Brain Wellness, Community Wellbeing, and Disaster Resilience Flagship Constellations (http://flagshipconstellations.olemiss.edu/).

We have a vibrant, broad-based biology department that consists of 21 tenure-track and 15 instructional faculty members, and educates over 1000 undergraduate biology majors and 45 graduate students (Ph.D. and M.S.). The University of Mississippi is a Carnegie-Designated R1 Highest Research University located in Oxford, Mississippi, a beautiful college town well known for its outstanding educational and cultural opportunities. The University of Mississippi has been repeatedly recognized by the Chronicle of Higher Education as a College to Work For. The Department of Biology recognizes the importance of building a diverse faculty and welcomes applicants from groups underrepresented in science.

To apply, please visit our Online Employment Service at https://careers.olemiss.edu/. Applications should include: (1) cover letter outlining interest and suitability for the position, (2) curriculum vitae, (3) a statement of research interests and future plans (3 pages or less) that includes an explicit description of how the applicants research plans will complement or build upon existing departmental research areas, (4) a brief (two pages or less) teaching and mentoring statement, which includes experience, approach, interests, and a list of potential graduate and undergraduate courses, (5) a diversity statement addressing approaches to promoting inclusivity in research and training, (6) names and contact information for at least three references, and (7) reprints of up to three recent publications or submitted papers. Items 1-6 should be prepared as a single pdf and item 7 as a second pdf file. Review of applications will begin December 10 and continue until the position is filled. If you have questions about the position, please contact Dr. Jason Hoeksema (hoeksema@olemiss.edu). The University of Mississippi is an EOE/AA/Minorities/Females/Vet/Disability/Sexual Orientation/Gender Identity/Title VI/Title VII/Title IX/504/ADA/ADEA employer. The University of Mississippi provides equal opportunity in any employment practice, education program, or education activity to all qualified persons. The University complies with all applicable laws regarding equal opportunity and affirmative action and does not unlawfully discriminate against any employee or applicant for employment based upon race, color, gender, sex, sexual orientation, gender identity or expression, religion, national origin,

age, disability, veteran status, or genetic information.

– Peter C. Zee Assistant Professor 406 Shoemaker Hall Department of Biology University of Mississippi

Peter Zee <zee@olemiss.edu>

UMississippi PopulationGenetics

The Garrick lab (www.rcgarrick.org) in the Department of Biology at the University of Mississippi is seeking applications for a Research Associate to assist with a USDA-funded project on the Southern Pine Beetle. The broader goals are to develop and apply a molecular tool set to understand dispersal, gene flow and range expansion dynamics of this species. The Research Associate will have the opportunity to be involved in all aspects of the research and publication process.

Duties will include: - molecular laboratory techniques (e.g., DNA extraction, PCR, genotyping); - genetic data and geographic data management; - maintain inventory of lab supplies and DNA samples in freezers; - order molecular consumables and oversee lab equipment maintenance; and - assist with training undergraduate independent study research students.

Essential qualifications/skills include: - a bachelor's degree in biology, environmental science, or a related area; - at least one year of laboratory research experience; - well-developed written and oral communication skills; - demonstrated ability to work independently, and as part of a team; - excellent organizational and record-keeping skills, with attention to detail; and - demonstrated ability to work on multiple assignments with overlapping deadlines.

The start date is anticipated to be early February 2019, but is flexible. The position is part-time (25-30 hours per week) for up to 12 months (renewal is contingent on availability of funds), and is eligible for benefits. Salary is dependent on experience.

Interested candidate can apply online at https://careers.olemiss.edu listed under "Research Associate (Biology)". Application materials include a cover letter describing your interest in the position and qualifications, a CV, and the names and contact information for at least two references. Questions or inquiries should be sent to Dr. Ryan Garrick (email: rgarrick@olemiss.edu). Applications will be reviewed upon receipt and the position will remain open until filled. The University of Mississippi is an

EOE/AA/Minorities/Females/Vet/Disability/Sexual Orientation/Gender Identity/Title VI/Title VII/Title IX/ADA/ADEA employer.

Ryan Garrick Department of Biology 508 Shoemaker Hall University of Mississippi University, MS 38677-1848, USA

webpage: http://www.rcgarrick.org   rgarrick@olemiss.edu

UOklahoma Tech Genetics

Title of Position: Technician - Genetics Start Date: Spring 2019

This position requires a Bachelors or higher degree in a biological science-related field, with at least two years of experience in genetics. Duties include coordination and protocol implementation in a multi-PI research group that is active in the use of genomic technologies, including ancient DNA, genome reconstruction, and microbiome research (see LMAMR.ORG). Strong organization skills and the ability to perform wet-lab chemistry commonly used in a genomics laboratory is a must. Candidates having prior experience with sample preparation for next-generation sequencing (NGS), including DNA extraction, library preparation, or target enrichment capture, will be preferred. This position will require the use of pre-designed bioinformatics scripts for analyses of NGS data. Candidates with prior knowledge of bash shell scripting will be preferred; however, a training period can be provided for the candidate to acquire the necessary scripting skills.

Earliest start date: Open until filled. Salary: 35-40K plus fringe.

Required Education: Bachelor Degree, and/or combination of work experience and education, AND: - 24 months of experience in genetics Skills: - Ability to speak, read and write clear, concise English - Basic math skills - Proficient in Microsoft Office - Detail oriented for accuracy of data and information - Some technical writing experience Advertised Physical Requirements: - Duties include standing, carrying materials, and frequent communication. Supervision: 1-5 Staff

Special Instructions: If you are selected as a final candidate for this position, you will be subject to The University of Oklahoma Norman Campus Tuberculosis Testing policy. To view the policy, visit http://www.hr.ou.edu/policies/tbtesting.asp. Hiring contingent upon a Back-

ground Check.

Apply at: https://ou.taleo.net/careersection/2/-jobdetail.ftl?job1507&tz=GMT-05%3A00 "Lewis, Cecil M. Jr." <cmlewis@ou.edu>

UOxford LabTech EvolutionaryBiol

Were currently advertising for a laboratory technician at the University of Oxford, job advertisement here: https://www.recruit.ox.ac.uk/pls/hrisliverecruit/-erq_jobspec_version_4.display_form?p_company&p_internal_E&p_display_in_irish=N&p_process_type=-&p_applicant_no=&p_form_profile_detail=-&p_display_apply_ind=Y&p_refresh_search=-Y&p_recruitment_id7701 Dave Hemprich-Bennett Ecologist and geneticist at the University of Oxford and Queen Mary University of London www.hemprichbennett.com David Hemprich-Bennett <david.hemprich-bennett@zoo.ox.ac.uk>

USDA-ARS LoganUT LabTech MolSysBees

Please find pasted below an ad for a laboratory technician with USDA-ARS Pollinating Insects Research Unit located at Utah State University in Logan, UT. The technician will aid research on the the molecular systematics of bees. Inquiries: michael.branstetter@ars.usda.gov. Apply at https://-www.usajobs.gov/GetJob/ViewDetails/515382000 . Position: Biological Science Laboratory Technician Salary Range: $41,365 to $59,557 per year

The U.S. Department of Agriculture, Agricultural Research Service, Pollinating Insects -Biology Management Systematics Research Unit, Logan, Utah, invites applications for a Biological Science Laboratory Technician position.

The incumbent will support a Research Entomologist who is a molecular systematist and conducting research on the systematics of pollinating insects and determining their distributions and roles in agriculture and natural ecosystems. This research will be key to performing native bee surveys, resolving species identifications of native bees, learning more about the native bee biologies, and ensuring the conservation and preservation of essential pollinators. Major Duties may include, but are not limited to extracting DNA and performing molecular work related to DNA sequencing and genomics and collecting, preparing, evaluating and verifying samples and supporting records.

At the GS-07 level, this position requires one full year of progressively higher level graduate education leading to a masters or equivalent graduate degree, if directly related. Related degrees may include Entomology, Biology, Molecular Biology/Biochemistry, Genetics, Evolutionary Biology, or Environmental Sciences; OR one year of specialized experience comparable to GS-06 which is directly related to the work of this position such as identifying native bees while using insect systematics techniques; collecting bee samples and records; performing data analysis; and assisting with DNA extraction, polymerase chain reaction, gel electrophoresis or Sanger sequencing.

At the GS-08 level this position requires two full years of graduate level education or a Masters degree, if directly related to the position Related degrees may include Entomology, Biology, Molecular Biology/Biochemistry, Genetics, Evolutionary Biology, or Environmental Sciences; OR one year of specialized experience comparable to GS-07 which is directly related to the work of this position such as experience identifying native bees while using insect systematics techniques; collecting bee samples and records; performing data analysis; and performing DNA quantification, quantitative polymerase chain reaction, DNA library preparation, or llumina sequencing.

The minimum requirements for this position are one full year of progressively higher level graduate education leading to a masters or equivalent graduate degree, if directly related. Related degrees may include Entomology, Biology, Molecular Biology/Biochemistry, Genetics, Evolutionary Biology, or Environmental Sciences; OR one year of specialized experience which is directly related to the work of this position such as identifying native bees while using insect systematics techniques; collecting bee samples and records; performing data analysis; and assisting with DNA extraction, polymerase chain reaction, gel electrophoresis or Sanger sequencing.

The applicant must be an U.S. citizen or a lawfully admitted permanent resident who will apply for citizenship when eligible. Applicants must clearly indicate their country of citizenship or legal status in their resume/CV. The position is full time. A comprehensive benefits package is available.

Applicants should apply online at https://-www.usajobs.gov/GetJob/ViewDetails/515382000

The position is November 6, 2018 open immediately until November 19, 2018. ARS is an Equal Opportunity Employer and Provider

Michael Branstetter, PhD USDA-ARS Pollinating Insects Research Unit Utah State University 5310 Old Main Hill Logan, UT 84322-5310 (435) 797-2588

Michael Branstetter <mgbranstetter@gmail.com>

Jo Anne Crouch, Ph.D. Research Molecular Biologist, USDA-ARS Mycology & Nematology GD&B Laboratory 10300 Baltimore Avenue, Bldg 10A, Room 227 Beltsville, MD 20705 Phone: (301) 504-6922 Cell: (609) 933-5496 joanne.crouch@ars.usda.gov

"Crouch, JoAnne" <JoAnne.Crouch@ARS.USDA.GOV>

USDA-ARS Maryland FungalSystematics

USDA-ARS, Beltsville, MD: Fungal Systematics

USDA-ARS is accepting applications for a research scientist to conduct systematic studies of agriculturally important ascomycetous plant pathogens.

The incumbent will be responsible for planning, organizing, and executing a nationally and internationally recognized research program in the area of ascomycetous plant pathogenic fungal systematics, enabling effective identification of cryptic, emerging or invasive fungal plant pathogens, especially in dothideomycetous genera. Required experience includes: (1) Experience in the practice of mycology, morphological and molecular systematic methods and techniques related to fungi, plant pathology, and evolutionary theory; (2) Experience using taxonomy, nomenclature, and associated methods for ascomycetous plant pathogenic fungi in their different morphological states; (3) Experience using computer applications for phylogenetic and genomic data analyses to develop phylogenies and DNA markers for species-level identifications and for comparison of microscopic characters; (4) Experience planning and conducting studies, interpreting results, and documenting findings related to fungal systematics through peer-reviewed publications in scientific journals.

This is a permanent position at the GS12 level, and located in the Mycology and Nematology Genetic Diversity and Biology Laboratory in Beltsville, Maryland (https://www.ars.usda.gov/northeast-area/-beltsville-md-barc/beltsville-agricultural-research-center/mycology-and-nematology-genetic-diversity-and-biology-laboratory/).

Applications are being accepted between 11/09/2018 to 11/23/2018. To view the job announcement, and to apply for the position, refer to https://www.usajobs.gov/-GetJob/ViewDetails/516512500 —

UTennessee Knoxville ResCoordinator PlantEvolution

A Research Coordinator/Laboratory Manager position is available in Susan Kaliszs lab in the Department of Ecology and Evolutionary Biology at the University of Tennessee - Knoxville. We are eager to fill this position as soon as possible.

Research in the Kalisz lab spans the fields of plant ecology, evolution, genomics and conservation, with a focus on how species interactions and mating system influence population evolution and demography and species diversification. Topics range from population genomics, pollination ecology and invasion ecology to the role of enemies and mutualists on plant populations (https://kaliszlab.weebly.com/).

The Research Coordinator/Lab Manager will be expected to participate in the planning and execution of lab, growth chamber, greenhouse and field experiments, including planting and growing experimental plant populations, data collection and record keeping, image analysis, graph and figure construction, preliminary statistical analysis in R and database management. The coordinator/manager will be responsible for ordering supplies and equipment, the maintenance and upkeep of biological equipment and tools, and managing the lab supplies inventory and seed collection. The coordinator/manager will also assist in supporting, training and supervising undergraduate researchers. The ability to maintain an organized laboratory notebook is necessary for this position.

Experience with large scale, complex controlled experiments is highly preferred.

Requirements: Bachelors degree (or higher) in a related field and three years of laboratory experience or equivalent.

Apply online at: https://ut.taleo.net/careersection/-ut_system/jobdetail.ftl?job000001RC&tz=GMT-05%3A00 Send your [1] resume, [2] cover letter briefly summarizing your interests and experiences, and [3] the

contact information of three references to Susan Kalisz at skalisz@utk.edu. Questions should be directed to Susan Kalisz.

"Brown, Katie" <kbrow144@utk.edu>

UToronto TeachingEvolution

UToronto.AssistantProfessor.TeachingStream.CLTA

Assistant Professor, Teaching Stream - Contractually Limited Term Appointment (CLTA) - Ecology and Evolutionary Biology

The Department of Ecology and Evolutionary Biology in the Faculty of Arts and Science at the University of Toronto invites applications for a Contractually Limited Term Appointment (CLTA) in the area of Ecology and Evolutionary Biology. The appointment will be at the rank of Assistant Professor, Teaching Stream for a two-year term, beginning July 1, 2019 and ending June 30, 2021.

Applicants must have earned a PhD degree in Ecology and Evolutionary Biology or in a related field by the time of appointment, or shortly thereafter. We seek candidates whose teaching interests complement and strengthen the programs in the Department: *www.eeb.utoronto.ca*. Candidates must have teaching expertise in a degree granting program at the undergraduate level, including lecture preparation and delivery, development of innovative labs and course materials in ecology and evolution, and development of online materials/lectures. Additionally, candidates must possess a demonstrated commitment to excellent, novel, and impactful pedagogical methods and a demonstrated interest in teaching-related scholarly activities.

Evidence of excellence in teaching and pedagogical inquiry can be demonstrated through teaching accomplishments, grants, awards, and accolades, presentations at significant conferences, the teaching dossier submitted as part of the application including a strong statement of teaching philosophy and pedagogical research interests, sample syllabi, course materials (lecture slides, lab manuals), teaching evaluations, and a demonstration of a commitment to collaboration or engagement with the broader community of teaching. Also required are strong letters of reference from referees of high standing highlighting excellence in teaching and long-term commitment to pedagogical inquiry and teaching innovation, particularly in the context of courses with large enrolments.

The successful candidate will be expected to teach core courses, primarily upper-year courses, across a range of subjects within ecology and evolutionary biology. Responsibilities may include undergraduate teaching, managing and training teaching assistants, developing course materials including ongoing development of course laboratory exercises, and curriculum development. In addition, the successful candidate will have some responsibility for departmental administration and may have opportunities for student supervision, e.g. undergraduate research projects. The successful candidate must also possess strong interpersonal skills, including the ability to collaborate effectively with colleagues on our undergraduate courses and programs.

Salary will be commensurate with qualifications and experience.

The University of Toronto is a leading academic institution 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 Department of Cell and Systems Biology, the Centre for Global Change Science, and groups with provincial and federal government agencies. The University owns a nearby field station (the Koffler Scientific Reserve) dedicated to ecological research that provides opportunities for field courses and undergraduate research, in addition to field courses we conduct at many other locations within Canada and internationally. Toronto is a vibrant and cosmopolitan city, one of the most desirable in the world in which to work and live.

All qualified candidates are invited to apply online by clicking the link below. Applicants must submit a cover letter, a current curriculum vitae, and a complete teaching dossier to include a statement of teaching philosophy and pedagogical research interests, sample syllabi, course materials (lecture slides, lab manuals), teaching evaluations, as well as evidence of a demonstrated commitment to collaboration or engagement with the broader community of teaching.

Applicants must also arrange to have three confidential letters of recommendation (signed and on letterhead), including at least one primarily addressing the candidate's teaching, sent directly by the referee to Professor Donald Jackson, Chair, Department of Ecology and Evolutionary Biology, University of Toronto by email to *chairsec.eeb@utoronto.ca* by the closing date.

Submission guidelines can be found at *http://uoft.me/-how-to-apply*. We recommend combining attached documents into one or two files in PDF format. If you

have any questions about this position, please contact Liz Rentzelos at *chairsec.eeb@utoronto.ca* or (416) 946-3340. For further information on the Department of Ecology and Evolutionary Biology,

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UTroms Norway MarineInverts

Professor/Associate Professor in Zoology (marine invertebrates) at the Department of Natural Sciences, TromsÃÂ University Museum at UiT

TromsÃÂ University Museum, UiT ' The Arctic University of Norway, has a permanent position vacant as Professor/Associate professor in Zoology (marine invertebrates). The position is attached to the Department of Natural Sciences.

Further information about the position is available by contacting the Head of Department TorbjÃÂrn Alm, phone +47 77 62 07 95, e-mail: torbjorn.alm@uit.no or Museum Director Lena Aarekol, phone + 47 77 64 50 30, e-mail lena.aarekol@uit.no.

https://www.jobbnorge.no/ledige-stillinger/stilling/-160262/professor-associate-professor-in-zoology-marine-invertebrates-at-the-department-of-natural-sciences-tromsoe-university-museum-at-uit   The position's affiliation TromsÃÂ University Museum has two academic departments, the Department of Cultural Sciences and the Department of Natural Sciences, with the additional units Polar Museum, MS Polstjerna and TromsÃÂ Arctic-Alpine Botanic Garden. This position is at the Department of Natural Sciences, which is responsible for developing and maintaining scientific collections of natural objects (animals, plants, fossils and minerals) as well as public outreach, including the TromsÃÂ Arctic-Alpine Botanical Garden. The Department has a permanent staff of 16, of which eight are in academic positions. At the moment, five PhD students, one post doc and two researchers are affiliated with the Department.

The Department is involved in research within the fields of ancient DNA, barcoding, taxonomy, phylogeography, ecology, palaeontology and biodiversity. The main focus is on northern Norway and the Arctic. The Department has well-established laboratory facilities for modern and ancient molecular biology, palynology, and palaeontology. For more information about the TromsÃÂ University Museum's activities, visit: https://en.uit.no/tmu .

The position's field of research/field of work TromsÃÂ University Museum has a long tradition in research on various marine invertebrates. The successful applicant for the position is expected to carry out research in any taxonomic group of marine invertebrates. Relevant groups are those living in our preferred target region ' along the coast of northern Norway and the Arctic. Applicants may focus their research in one or more of the fields biosystematics, biogeography, biodiversity, ecology and molecular genetics.

The position's duties include research and research-based activities, collection management, dissemination and administration. We also encourage the teaching and supervision of Master and PhD students. This position will include responsibility for the marine invertebrate collections, both within and outside her/his own research field, and curation of other collections within zoology is expected.

The appointee is expected to participate actively in a broad range of museum outreach activities, such as public communications, media interactions and exhibitions. The appointee is furthermore expected to collaborate and seek collaboration within the institution as well as nationally and internationally. She/he is expected to be active in applying for external research funding.

Qualification requirements The successful candidate is internationally recognized within the field, with scientific merits beyond doctoral level. Research experience within biosystematics/taxonomy of a relevant taxonomic group is required. Experience in museum work, especially scientific collections, is a further asset. A successful track record in applying for external funding and/or a high potential for external funding will be given emphasis when evaluating applicants. Personal suitability will also be evaluated.

For a position as associate professor, you should have a good publication record in terms of papers in peer-reviewed journals and other relevant international publication channels. Documented external funding, experience with research leadership and relevant collaboration with industry will be rated positively. As an associate professor, we expect you to aim at developing yourself further to a full professor.

For a position as professor, you should demonstrate international experience and have a strong publication

record in terms of papers in peer-reviewed journals and other relevant international publication channels. You should document the ability to obtain external funding from relevant sources, and be able to initiate and lead research at a high international level. We will also assess outreach, network and teaching and supervision activities.

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UVienna ComparativeNeuroscience

Neuroscientific Foundations of Human-Animal Interactions

https://personalwesen.univie.ac.at/jobs-recruiting/-professuren/detail-seite/news/neuroscientific-foundations-of-human-animal-interactions/-?no_cache=1&tx_news_pi1%5Bcontroller%5D=-News&tx_news_pi1%5Baction%5DÃtail&cHashö941f27359807071e19db897b66bd9fc

A joint professorship is announced in the field of Neuroscientific Foundations of Human-Animal Interactions (Comparative Neuroscience of the Social Brain), to be based at the Messerli Research Institute of the University of Veterinary Medicine, Vienna, the University of Vienna, and the Medical University of Vienna. This joint professorship between the Faculty of Life Sciences at the University of Vienna (50%) and the University of Veterinary Medicine, Vienna (50%) will be supported by and assigned to the Messerli Research Institute.

University Professor of Neuroscientific Foundations of Human-Animal Interactions according to Â§98 UG 2002

(private sector, full-time, open-ended term). Since both universities aim to increase the proportion of women, particularly in management and scientific positions, qualified women are hereby expressly invited to apply. In cases of equivalent qualifications, women will be given preference in hiring.

Research carried out (Comparative Neuroscience of the Social Brain) under this professorship is expected to increase comparative and mechanistic (e.g., neural, physiological, and/or genetic) understanding of the neuroscientific foundations of social behaviour, in particular

in the context of human-animal interactions, and between conspecifics and/or members of different species. The research methodology used should be empirical and highly comparative, incorporating multiple species and preferably including humans.

The profile of the candidate should encompass outstanding research in an area of comparative neuroscience that clearly contributes to the improved understanding of sociality in humans and other species, including aspects such as social cognition, social decision making, and of affective behaviour.

The candidate should apply state of the art methods in molecular/cellular biology, physiology and behavioural/cognitive research; applicants should present a clear roadmap for future research relevant to human-animal relations, as well as an interest in developing collaborations between neuroscience and other disciplines, especially cognitive biology, psychology, ethics, veterinary medicine, and medicine.

In particular, the successful candidate for this professorship should cultivate promising alliances: including the other Messerli Research Institute professorships in the areas of Comparative Cognition, Comparative Medicine and Ethics and Human-Animal Studies; researchers in brain, cognition and behaviour at the Faculty of Life Sciences at the University of Vienna (including teaching), and to other research initiatives and research focal points in Vienna, especially to clusters in neuroscience and cognitive science (e.g. the new Cognitive Science Hub). The successful applicant will be expected to play a role in the NeuroCog initiative, a strategic initiative led by the University of Vienna to expand neuroscience and cognition research in the Vienna region, which aims to build upon and strengthen existing research in neuroscience, cognitive science, psychology, molecular and cellular biology, genomics, evolutionary biology, microbiology, chronobiology and computational science.

The interdisciplinary orientation of the Messerli Research Institute requires the successful candidate to work beyond traditional disciplinary boundaries, to carry out interdisciplinary projects and to assume joint responsibility for postgraduate teaching at the Messerli Research Institute.

Successful candidates will have the following qualifications:

- Doctoral or post-doc experience at a university or other research institution (successful completion of a commensurate degree from a national higher education institution or foreign equivalent)

- Outstanding achievement in research, international reputation and excellent publication track record, also

integration into the international scientific community; habilitation in a relevant field (venia docendi) or an internationally recognized equivalent qualification is required.

- Experience in the conception, funding and management of large research projects, as well as the experience leading successful research groups.

- Experience in university-level teaching and the ability and willingness to teach at all curricular levels (bachelor, masters,

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UWashington LabTech MarineMetabarcodingGenomics

RESEARCH SCIENTIST/ENGINEER 2

Department: Joint Institute for the Study of the Atmosphere and Ocean (JISAO) Posting Date: 11/21/2018 Closing Info: Open Until Filled Salary: Salary is commensurate with education and experience

As a University of Washington employee, you have a unique opportunity to change lives on our campuses, in our state and around the world. UW employees offer their boundless energy, creative problem solving skills and dedication to build stronger minds and a healthier world.

UW faculty and staff also enjoy outstanding benefits, professional growth opportunities and unique resources in an environment noted for diversity, intellectual excitement, artistic pursuits and natural beauty. All of which has allowed the UW to be nationally recognized as a "Great College to Work For" for five consecutive years.

JISAO has an outstanding opportunity for a Research Scientist Engineer. This JISAO/UW research scientist will work in the new Genetics and Genomics Group (G3 Lab) at the NOAA Pacific Marine Environmental Laboratory, Sand Point in Seattle under Dr. Carol Stepien (NOAA/PMEL) and with Dr. Kim Andrews (JISAO/UW). The G3 lab uses cutting-edge techniques such as multi-locus metabarcoding, RADseq, and mi-

togenome sequencing to study oceanic biological community diversity and responses to physical and chemical oceanographic parameters.

Component species and population genetic relationships for invertebrates and fishes are identified and assessed using environmental DNA (eDNA), plankton, sediment samples, and whole organisms collected with plankton tows, CTD casts, ROVs, and sediment cores. Study regions include the west coast of North America, Salish Sea, Gulf of Alaska, Bering Sea, and U.S. Arctic, as well as deep sea vents and seeps across the Pacific. Physical, chemical and biological oceanographic parameters are considered to predict the effects on marine ecosystems of environmental change including acidification, warming, hypoxia, and deep sea mining. This position involves using environmental DNA and Next-generation sequencing data collection and analysis from water and plankton samples from the Pacific Northwest, Alaska, Arctic and the deep sea in concert with physical and chemical oceanographic conditions to understand marine ecology.

Job duties: ÂPerform, trouble-shoot, and analyze results of various molecular biology techniques including quantitative RT-PCR, Next-Generation Sequencing library preparation (e.g., metabarcoding, RADseq, mitogenomes), Sanger sequencing, DNA/RNA/protein extractions, tissue and sample acquisition ÂInterpret results and maintain complete and accurate records of experiments conducted and data obtained in a laboratory notebook and in computer databases ÂAssist PI with grant-related paperwork, data analyses, literature reviews and preparation of manuscripts and presentations ÂTrain and help oversee laboratory graduate and undergraduate student researchers in conducting molecular biology experiments, when specified by the PI ÂMaintain laboratory equipment, cleanliness, autoclaving, buffer preparation, etc. Inventory and order supplies ÂConduct at-sea experiments and sampling of plankton, fishes and invertebrates.

As a UW employee, you will enjoy generous benefits and work/life programs. For detailed information on Benefits for this position, click here.

Required education/skills: ÂBS Degree in molecular biology, life sciences, genetics, chemistry or related field ÂMinimum of one to three years of job-related experience ÂCareful attention to detail and record keeping, strong laboratory chemistry techniques to avoid contamination, skilled in molecular biology/genetics techniques, statistical analysis skills and experience ÂStrong organizational skills. Excellent interpersonal communication skills (oral and written) ÂFamiliarity with MS Word, PowerPoint, Excel, and Adobe Acro-

bat/Illustrator ÂWorking knowledge of molecular biology and sterile techniques, including PCR, DNA extraction, DNA sequencing ÂMust be physically able to work at sea and lift boxes of samples or equipment weighing 50 pounds

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

Desired skills and abilities: ÂStrong preference for genetics analytical skills, including BLAST, DNA alignment, sequence analysis, and statistical analysis ÂPopulation genetics course and data analysis experience, experienced in genomics and genetics laboratory approaches, next-generation sequencing ÂCourses or background in systematic biology and taxonomy, invertebrate zoology, ichthyology (fishes), marine biology/oceanography ÂExperience working at sea

Application Process:

Apply here:

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Valdivia Chile ResAssist PopulationGenomics

Dear colleagues,

I'm seeking a research assistant for my FONDECYT Project titled 'Deciphering the complex evolutionary history of a domesticated red alga within the Pacific Ocean using population genomic'. Research assistant will be in charge of ddRAD sequencing and SNPs data analyses in a red macroalgae (i.e.,*Gracilaria chilensis*). Aims of the project are to use these data sets to propose scenarios of transpacific colonization in *G. chilensis*and search for trace of selection, local adaption and/or domestication, in the species genome. The person should have advanced formation in population genomics and be able to participate in writing of the drafts.

No problem to have some "me-time" to write articles about data obtained during previous works or grants while working on the Fondecyt project.

Qualifications needed: master or phd with strong formation in population genomics.

Wage: 1.100.000 Chilean pesos per month; which is more or less = to 1390 euro per month or 1600 USD.

Working date: Work could start at the beginning of 2019 and there is opportunity for funding up to march 2021.

Work location: Valdivia, Chile

Contact: Tel: (56)   63   2221703;   Email: marielaure.guillemin@gmail.com

Do not hesitate in contacting me.

Marie-Laure Guillemin

marie-laure guillemin <marielaure.guillemin@gmail.com>

WashingtonStateU InsectSystematics

The Department of Entomology at Washington State University is seeking an Assistant or Associate Professor to develop an innovative, nationally and internationally recognized, and externally funded research and teaching program in insect systematics. This 12-month, tenured or tenure-track full-time faculty position begins August 16, 2019, or as negotiated. Responsibilities include developing a nationally and internationally recognized, externally funded systematics research and teaching program, and use molecular approaches to contribute to arthropod systematics and phylogenetic research; contribute to the department's teaching mission; and direct the M.T. James Entomological Collection.

Required: Earned Ph.D. in Entomology or related discipline at date of hire with demonstrated expertise in arthropod systematics and phylogenetic research. Screening of application materials begins January 4, 2019, and will continue until the position is filled. Applications must include: letter of application addressing the required and preferred qualifications, areas of expertise, and research interests; a current curriculum vitae; statement of vision and goals for the position that describes how you would approach the position; electronic copies of graduate and undergraduate academic transcripts; and names and contact information for four professional references. Letters of recommendation will be requested for the finalists. Please contact Carol Black, Search Committee Chair, ramsay@wsu.edu, 509-335-5425, for questions about this position. All qualified individuals

are encouraged to apply.

For a complete position description see the Notice of Vacancy with all required and preferred qualifications visit entomology.wsu.edu/directory/current-vacancies/, and to apply visit www.wsujobs.com and search #: 128207 (www.wsujobs.com/postings/41048). For additional information on Washington State University, the College of Agricultural Human and Natural Resource Sciences or the Department of Entomology, visit cahnrs.wsu.edu,

and entomology.wsu.edu. EEO/AA/ADA.

Laura Lavine Professor & Chair, Department of Entomology & Associate Director of the Agricultural Research Center College of Agricultural, Human & Natural Resource Sciences | Office of Research Washington State University PO BOX 646240 | Pullman WA 99164-6240 Phone: 509-335-4563 | http://cahnrs.wsu.edu/research/ < https://cleantech.wsu.edu/ >

"Lavine, Laura Sue" <lavine@wsu.edu>

Other

AMNH NewYork Female1YrFellowships

Dear Colleagues,

The BridgeUP: STEM program at the AMNH is excited to announce that the application for the Helen Fellowship is now open. This fellowship is a one-year residency for post-baccalaureate women to devote time immersed in computational scientific research and ed-

ucational outreach at the AMNH. This fellowship is an initiative at the AMNH dedicated to increasing the diversity of the talent pipeline by providing underrepresented students access to the skills and tools required for the 21st Century.

Please share this great opportunity with any female student or advisee who might be interested. To learn more about the fellowship and the application process, visit https://www.amnh.org/learn-teach/adults/-bridgeup-stem/helen-fellowship .A colorful PDF flyer can be downloaded at this website.

Who is eligible to apply? The fellowship is intended for recent college graduates with a conferred bachelors or

masters degree in computer science, natural sciences, applied mathematics, computational science, or other relevant majors prior to the fellowship start date in September.

What are the benefits? Fellows will receive an annual salary of $70,000 plus generous benefits. Funding is also available for research, travel and equipment expenses.

How do I apply? The online application is now open and is due by January 20, 2019. To learn more about application requirements, visit https://www.amnh.org/-learn-teach/higher-education/helen-fellowship . With Regards,

The BridgeUP: STEM Team

Email: bridgeupstem@amnh.org

bridgeupstem@amnh.org

Bordeaux BioinformaticsEvolutionConifers Internship

*** Genome evolution in conifers (Master internship) ***

* Supervisors: Marina de Miguel Vega, François Ehrenmann, Christophe Plomion * UMR 1202 Biogeco, INRA-Univ. Bordeaux, Equipe Ecologie et génomique fonctionnelle Co-supervisor : Jérôme Salse (Inra, Clermont-Ferrand)

** Contact person: Marina de Miguel Vega, marina.de-miguel@inra.fr Send a CV and a motivation letter

** Desired candidate profile: master in bioinformatics or solid competences in data analysis; knowledge in biology and genomics.

** Duration: 5-6 months from Jan-Feb to June-July 2019

** Salary: 568.5€/month

** Location: the internship will take place at the UMR BioGeCo at the INRA site of Cestas-Pierroton (INRA / University of Bordeaux). The site offers a pleasant setting within a forest estate located between Bordeaux (20km) and Arcachon (40km) (see: https://-www6.bordeaux-aquitaine.inra.fr/biogeco/Acces). The research campus is accessible by public transport from the train station of Cestas-Gazinet (2 bus shuttles per day).

* Background * Conifers, the most abundant group of gymnosperms, are a unique system for the study of adaptive evolution because they represent the largest and longest living terrestrial organisms, dominate many of the temperate and boreal forests and are adapted to a large variety of environmental conditions (Diaz-Sala et al. 2013). Evolutionary models of angiosperm karyotypes have been proposed recently thanks to comparison of available sequenced genomes for several important species (Salse et al. 2008, 2015; Murat et al. 2010) . These studies showed that angiosperm genomes have evolved through frequent, rapid chromosomal rearrangements, including whole-genome duplications (WGDs) followed by nested chromosome fusions. On the other hand, conifers have particular genome features that slow down knowledge on genome evolution. For instance, conifers have extremely large genomes (ranging from 18 to 35 Gb) characterized by the presence of repetitive elements (Kovach et al. 2010; Mackay et al. 2012). These features complicate attempts to sequence the genomes of this group of plants and the recently released draft genome sequences are highly fragmented (Nystedt et al. 2013; Zimin et al. 2014; Warren et al. 2015; Stevens et al. 2016; Neale et al. 2017). One ancient WGD event is known to have occurred before the angiosperm'gymnosperm split around 350 Ma (Jiao et al. 2011). However, whether other WGD events have occurred during the evolutionary history of conifers is still a matter of debate between the scientific community. Nysted et al. (2013) did not find evidences of recent WGD in Picea abies and advocated an intense activity of transposable elements as the main mechanism of genome size increment in conifers (Stevens et al. 2016). On the contrary, Li et al. (2015) reported a WGD for the Pinaceae and another for the Cupressophyte clade. In addition, most of the genomic studies in conifers have been performed within the Pinaceae, the largest family of conifers, and it has been well demonstrated that Pinaceae genomes present high levels of interspecific and intergeneric synteny and macrocollinearity (Krutovsky et al. 2004; Pelgas et al. 2006; Pavy et al. 2012), suggesting a lack of chromosomal rearrangement within this family. Nevertheless, a comparison between Pinaceae and Cupressaceae revealed intense chromosomal shuffling between both families (de Miguel et al. 2015). Further studies on genome structure, function and evolution including different conifer families are needed in order to decipher whether evolutionary mechanisms identified in angiosperm genome evolution have also played a key role in the evolution of conifers.

* Project * The Master2 project will take advantage of the previous work developed by this team in the construction of a high-density consensus genetic maps for

Pinaceae (updated from de Miguel et al. 2015) and other published conifer linkage maps (Moriguchi et al. 2016). High density genetic maps are a valuable tool in the absence of completely assembled genome sequences for conifers. Combining gene position information (obtained from high density genetic maps) with publicly available transcriptomic and genomic sequences for several conifer species (Li et al. 2015) a comparison of genome structure and function will be performed. The main objective of this Master project is to study the genome structure and evolution in conifers. Three main tasks will be pursued: 1. Genome structure comparison between conifer species on the basis of high density genetic linkage maps. 2. Validate or refute the existence of recent WGD during the evolution of conifers. 3. Analyze gene-turnover (gain and loss of genes in particular gene families) during conifer evolution. The completion of this project will contribute to understand unique features of conifer genomes that may shed new light to understand the

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Bordeaux DemographicHistoryOfSpeciation Internship

We are looking for a master 2 student for an internship project. The aim of the project is to find the best way to infer the demographic history of species complexes during speciation.

Deadline for application: 11/11/2018

Ludovic Duvaux, Carole Smadja, Roger Butlin & Christophe Plomion

**

*Title: Using population genetics demographic methods to infer speciation history of species complexes with high gene flow: comparing pairwise and multi-species approaches. *

_ _*General information * Supervisor: Dr. Ludovic Duvaux (INRA Pierroton, France) Co-supervisors: Dr. Carole Smadja (CNRS Montpellier, France), prof. Roger Butlin (University of Sheffield, UK), Dr. Christophe Plomion (INRA Pierroton, France) Host laboratory: UMR BioGeCo (UMR 1202), Cestas-Pierroton, France Contact: Ludovic Duvaux (ludovic.duvaux@inra.fr) Carole Smadja (carole.smadja@umontpellier.fr)

*Practical information * Lab location: the laboratory is situated on a small campus between Bordeaux (20 km) & Arcachon (40 km). Being dedicated to wood and forest management, it offers a nice working environment within a beautiful forest domain and gives prominence to wooden structures and furniture. Transport: The campus is connected to accommodation specifically dedicated to foreign students (https://www.crous-bordeaux.fr/international-2/) by straightforward public transport (train station plus 2 shuttles each direction every day). Salary: 568.5ÃÂÂ Â¬/month

*Project summary * The large amount of genomic data available nowadays allows us to infer the demographic history of species. It is especially interesting to use these data and methods to infer the history of species differentiation, that is to understand the process of speciation. Methods of demographic inferences generally consider 2 populations/species at a time. Although straightforward, this can lead to spurious results where one considers complexes where several species present incomplete reproductive isolation to each others (aka species complexes). Methods do exist to analyse multiple species simultaneously, however they require to know the phylogeny of incipient species a priori. This prerequisite is really complicated to fulfil for some species complexes as high levels of gene flow can strongly blur the real phylogeny of incipient species. Therefore, there is no satisfying method currently in existence to infer simultaneously the order of incipient species separations (aka the phylogeny) and the speciation parameters (rate of gene flow between incipient species, divergence time, effective population sizes) for species complexes with high gene flow. Using an approximate Bayesian computation framework including machine learning, this project aims to determine the best way to infer the speciation history of species complexes with high gene flow by comparing pairwise and multi-species approaches of demographic inferences.

*Description * _Background:_ The large amount of genomic data available nowadays allows us to infer the demographic history of species (e.g. estimations of population size, gene flow rates and divergent time between species). This allows us to assess the impact of historical events on population evolution, a famous example being the impact of ice age cycles on patterns of genetic diversity of species. Inferring the demography of incipient species is also required to understand how they diverge, that is the speciation process. Speciation comes along with reproductive

isolation (RI) and RI is driven by the accumulation of reproductive barriers during a period called the ÃÂâÂ¬Ã′greyzoneofspeciationÃÂâÂ¬Â(Rouxetal.2016).Duringthisperiod,incipientspeciesarenottotallyreproductivelyi speciesmigration(akageneflow), furthertoadaptation,inbarrieraccumulation(Abbotetal,2013).Forinstance,thisapproachisal

Demographic inference methods usually consider 2 populations/species at a time, i.e. pairwise methods (Nielsen & Wakeley 2001). Although straightforward and robust (Beaumont 2008; Strasburg & Rieseberg 2010), this can lead to spurious results where one considers complexes where several incipient species present incomplete reproductive isolation to each other (aka species complexes). Methods do exist to analyse multiple species simultaneously, however they require to know the phylogeny of incipient species a priori (e.g. Hey 2010). This prerequisite may be very hard or even impossible to reach for some species complexes with

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Citation for PairwiseDistance

dear and reputable members of the evoldir,

may i ask if any of you has ever seen before the principle underlying the huge potential speed up of pairwise comparisons quickly presented below?

and if so, would you know how the trick is called and a citation or perhaps the details of an eventual informal communication?

everybody tells me the trick must be well-known but nobody can point to a publication or an informal remark by somebody.

stuart kurtz (compsci uofc) tells me the trick almost cannot be exploited by standard computers but allows one to express everything with C pointers very compactly.

best greetings and thanks in advance!

m

===given a data column with say five binary-marker entries

1: 1 2: 0 3: 0 4: 1 5: 0

let's get the ten pairwise comparisons of the five entries, i.e., 1vs.2, 1vs.3, 1vs.4, 1vs.5, 2vs.3, 2vs.4, 2vs.5, 3vs.4, 3vs.5, and 4vs.5

and let's use 1 for "match" and 0 for "mismatch"

the first batch of pairwise comparisons is 1vs.2, 1vs.3, 1vs.4, and 1vs.5: 1vs.2: 0 (mismatch) 1vs.3: 0 (mismatch) 1vs.4: 1 (match) 1vs.5: 0 (mismatch)

it happens that when data entry 1 is the binary marker 1, one can use directly data entries 2, 3, 4, and 5 as pairwise comparisons 1vs,2, 1vs,3, 1vs,4, and 1vs,5, i.e., 0, 0, 1, 0.

for 2vs,3, 2vs,4, and 2vs,5, we have 2vs.3: 1 (match) 2vs.4: 0 (mismatch) 2vs.5: 1 (match) it happens that when entry 2 =/= entry 1, one can use NOT(entries 3, 4, 5)= NOT(0, 1, 0)= 1, 0, 1, as pairwise comparisons 2vs,3, 2vs,4, and 2vs,5.

for 3vs.4 and 3vs.5 one has 3vs.4: 0 (mismatch) 3vs.5: 1 (match) since entry 3 =/= entry 1 one uses NOT(entries 4, 5)= NOT(1, 0)= 0, 1

finally for 4vs.5 one gets 4vs.5: entry 4: 1 (mismatch) entry 4 = entry 1, so one uses directly entry 5= 0 as pairwise comparison 4vs,5

obviously when data entry 1 is the binary marker 0, one uses NOT(markers 2 to 5), i.e., 1: 0 (<– now 0) 2: 0 3: 0 4: 1 5: 0 i.e., one uses directly NOT(data entries 2, 3, 4, and 5) as pairwise comparisons 1vs,2, 1vs,3, 1vs,4, and 1vs,5, i.e., NOT(0, 0, 1, 0) 1, 1, 0, 1.

marcos antezana <marcos.antezana@gmail.com>

Cornell Diversity PreviewWeekend

Hello,

As the application deadline approaches, we would like to remind you to share this exciting opportunity for students from underrepresented backgrounds. I would appreciate it if you could share this event with any qualified individuals who are considering pursuing graduate school.

The Cornell University Dept. of Ecology and Evolutionary Biology, Dept. of Entomology, and School of Integrative Plant Science are pleased to announce our third annual Graduate Student Diversity Preview Weekend being held from March 7-10, 2019. This event is intended to introduce students from underrepresented backgrounds to the graduate school application process and to connect them with faculty members that share research interests.

Participant housing and meals will be provided, as well

as up to $600 in travel expenses. We encourage applications from students from underrepresented backgrounds (including underrepresented minorities, first-generation students, low income, people with disabilities, LGBTQIA) that are interested in applying for graduate school during the 2019-2020 application cycle. The application deadline is December 1, 2018.

For more information and to apply, please visit www.inclusivecornell.org < http://inclusivecornell.org/ >. If you have any questions, please email inclusivecornell@gmail.com.

All the best,

Kara J. Andres, M.S. PhD Student, Lodge Lab Dept. of Ecology and Evolutionary Biology Cornell University

Kara Andres <kja68@cornell.edu>

ESEB ProgressMeetings CallForProposals DeadlineNov30,

Progress meetings in evolutionary biology

We are excited to announce the second round of a new initiative by the European Society of Evolutionary Biology (ESEB), in partnership with the Journal of Evolutionary Biology (JEB).

We invite applications for funding to support focussed conference or workshops on a topical issue where rapid progress is currently being made in understanding Evolutionary Biology. ESEB will supply funds up to æ15,000 to assist with workshop planning (venue, travel or attendance support). We encourage proposals on any topic.

We expect these meetings to bring together a range of researchers focussed around a topic for a ºstate of the art± conference, ideally proposing a new synthesis, viewpoint or technical or analytical breakthrough facilitating new avenues of research. Attendees would represent researchers from all career stages and must accord with our Equal Opportunities guidelines. Attendance should be open to all, but ESEB members should be prioritised. Typically, meetings would last 2-3 days.

A condition of the funding is that the meeting has a clear objective to produce either a Special Issue or Target Review for JEB. Within 4 months of the meeting manuscripts arising from the meeting should be submitted to the journal, to be handled by the organisers as guest editors or the editorial board of JEB, as appropriate.

This is a novel opportunity for a one-off topical meeting for ESEB members and the evolutionary community. There will be one round per year, with a deadline of Nov 30, 2018. Applicants should be members of ESEB or our sister society, the Society for the Study of Evolution.

There is no official application form. The application document should include

- The title of the conference and why this is suitable for a Progress Meeting. - Names and addresses of the organisers, with short (1 page each) CVs - List of keynote speakers, with justification (potentially key recent references). They should have agreed in principle to participate - A 2-page description of the aims and potential scope of the conference - Conference venue details - Methods of selecting participants - Publication plans

Queries and applications should be submitted to office@eseb.org by the deadline. People are also welcome to approach any of us at the forthcoming joint meeting in Montpellier. The successful application will be chosen by an ESEB committee.

Luke Holman, Reviews Editor, JEB Mike Ritchie, former Editor in Chief, JEB Wolf Blanckenhorn, Editor in Chief, JEB Tanja Schwander, Deciding Editor and former Special Issue Editor, JEB

Ute Moniatte| ESEB Office Manager| office@eseb.org European Society for Evolutionary Biology | www.eseb.org office@eseb.org

EvolutionMedicineSociety MembershipDiscount

The International Society for Evolution, Medicine and Public Health is offering a 20% discount on membership fees until December 15th. Use code ISEMPH2018 at checkout Full information at https://isemph.org/-membership Full Members get many benefits:

- Reduced fees for the Annual Meeting August 13-16 in Zurich. - Early notice about events, funding opportunities and the ISEMPH Newsletter - A $1000 discount on publication fees for articles in the Societys journal, Evolution, Medicine & Public Health - A 25% discount on all Oxford University Press academic books (use your email or ISEMPH member number) - Notification of new publications in Evolution, Medicine, & Public Health (1 click unsubscribe) - Advanced search and download func-

tions for all 1500+ resources on EvMedEd - Nomination and voting rights in Society elections - Your information listed online to facilitate connections with other members (you can specify what is displayed) - Access to more information about other members of ISEMPH - Opportunities to collaborate with other members to help develop the field of evolutionary medicine

Gratis membership is also available. It includes only a newsletter subscription and an opportunity to list selected information on the EvMed Network to facilitate connections with others who share your interests

Randolph Nesse <nesse@asu.edu>

HarvardU PlantEvolutionAwards

Research Funding opportunities at the Arnold Arboretum of Harvard University

The Arnold Arboretum of Harvard University promotes and supports research consistent with its mission to discover and disseminate knowledge of the plant kingdom. To foster both independent and collaborative work, the Arboretum offers fellowships and awards to students, post-doctoral researchers, and professionals of the biological sciences including evolution, ecology, development, and genetics. Applicants are encouraged to define and develop paths of inquiry using the Arboretums resources, including its world-renowned living collection, herbarium, plant records, library and archives, greenhouse and laboratories, and the expertise of its staff.

There is currently one fellowship, eight awards, and an internship program. Applicants must submit a research proposal online by Feb 1. The deadline for the Undergraduate Research Internship Program is March 1.

Please see the website for the specific requirements of each award. http://www.arboretum.harvard.edu/research/fellowships/ Available Opportunities: DaRin Butz Research Internship Program of the Arnold Arboretum of Harvard University Ashton Award for Student Research Cunin / Sigal Research Award Deland Award for Student Research Shiu-Ying Hu Student/Postdoctoral Exchange Award Putnam Fellowship in Plant Science Arnold Arboretum Genomics Initiative and Sequencing Award Jewett Prize Sargent Award for Visiting Scholars Sinnott Award

Faye Rosin, PhD Director of Research Facilitation Arnold Arboretum of Harvard University 1300 Centre

St Roslindale, MA 02131

phone: (617) 384-5095 fax: (617) 384-6596

frosin@oeb.harvard.edu http://arboretum.harvard.edu/ "Rosin, Faye M" <frosin@oeb.harvard.edu>

KielU MicrobialEvolutionaryGenomics Erasmus

The Genomic Microbiology Group of Prof. Tal Dagan in the Institute of Microbiology at Kiel University, Germany, invites applications for:

Master projects in computational evolutionary genomics within the framework of ERASMUS+

The Genomic Microbiology Group research interests are focused on microbial genome evolution with an emphasis on the study of DNA acquisition dynamics in natural environments. In our research we use both computational and experimental approaches (see www.uni-kiel.de/genomik). We offer opportunities to develop an independent research project within the group research focus. The working language of the group is English.

Candidate qualifications: (1) BSc in Biology or Bioinformatics. (2) Knowledge of molecular evolution or programming is an advantage. Importantly: internees starting in the Winter semester have the possibility to join the courses 'Fundamentals of molecular evolution' or 'Python programming'. Internees starting in the Summer semester can join a course on 'Computational Genomics'. All courses include hands-on tutorials.

Applicants should send a CV and a short description of their research interests.

For more information on the application of Erasmus+ within Kiel University see: http://www.international.uni-kiel.de/en/erasmus/erasmus-kiel-university For enquiries regarding possible research stay please contact Prof. Tal Dagan: tdagan@ifam.uni-kiel.de

Prof. Dr. Tal Dagan

Genomic Microbiology Group Institute of Microbiology Christian-Albrechts-University Kiel ZMB, Am Botanischen Garten 11 24118 Kiel, Germany

Tel: +49 431 880 5712 Fax: +49 431 880 5747 e-mail: tdagan@ifam.uni-kiel.de web: www.uni-kiel.de/genomik Tal Dagan <tdagan@ifam.uni-kiel.de>

Phyloseminar SebastianDuchene Nov29

Next on http://phyloseminar.org/:   Model adequacy in infectious disease phylodynamics Sebastian Duchêne (University of Melbourne) Thursday, November 29, 2018, 1:00 PM PST

Statistical models are widely used in phylogenetics to infer the evolutionary history of groups of organisms. In the context of rapidly evolving pathogens, phylogenetic analyses can be used to make inferences about epidemiological processes, a field known as infectious disease phylodynamics. A key component of phylodynamic analyses is a branching model to describe transmission. For example, coalescent and birth-death models can estimate the average number of secondary infections using phylogenetic trees. However, the resulting inferences are contingent on the extent to which models describe key aspects of the data. For example, the simplest models in phylodynamics assume that transmission rates are constant over time and lineages, which is not necessarily the case for many empirical data sets. In this talk I will discuss model adequacy methods in phylodynamics. In contrast to model selection, where models are ranked according to their statistical fit, the goal of model adequacy is to determine whether key aspects of the data at hand could have been generated by the model in question. That is, to assess the absolute, rather than relative, model fit. Model adequacy typically consists of simulating data from the model and comparing them to the empirical data. The crux of such comparisons is to develop summary statistics that represent the expectation under the model. Using examples from different virus data sets I will present several approaches to assess phylodynamic models to reveal the importance of modelling population dynamics, such as population structure and variation in transmission rates, in epidemiological estimates. Finally, I will illustrate ways in which an uptake of these approaches can improve our understanding of infectious disease evolution and motivate the development of models in phylodynamics.

Andy Magee UW Biology <afmagee@uw.edu>

afmagee@uw.edu

QUBES FacultyMentoringNetwork Opportunities

QUBES Faculty Mentoring Network (FMN) Opportunities Spring 2019 QUBES (Quantitative Undergraduate Biology Education and Synthesis) is excited to offer these semester-long professional development opportunities designed to engage you with faculty from around the country (or world!) to enhance your teaching. If you have any questions, please contact Deb Rook (deb.rook@bioquest.org) or Nicole Chodkowski (nchodkowski@radford.edu).

DATA EXPLORERS: Using ecological data in undergraduate biology classrooms Are you a community college or lower-division instructor interested in bringing data-driven lessons into your classroom? Focus on how to effectively teach students data analysis and visualization skills using Teaching Issues and Experiments in Ecology (TIEE) modules in undergraduate biology courses, by customizing and implement educational modules. Apply by November 30, 2018. Visit https://qubeshub.org/groups/dataexplorers_2019 SIMBIO FACULTY MENTORING NETWORK Led by CC Carson and Eli Meir Do you teach undergraduate Ecology? Are you interested in active learning approaches that emphasize quantitative reasoning? Participants will build mini-case studies as classroom activities to reinforce concepts and approaches explored in SimBios SimUText Ecology interactive chapters.. Through bi-weekly virtual sessions, participants will discuss best practices for using mini-case studies, and will critique and help improve case studies developed by their FMN colleagues. Apply by November 21, 2018. Visit https://qubeshub.org/groups/simbio2019 R FOR DBER Led by Melissa Aikens and Drew Lamar Are you interested in learning R to be able to apply it to your education-based research? Learn how to use R, including how to get started in R, exploratory data analysis, and basic statistical techniques such as t-tests, ANOVAs, and linear regression. Participants will use R to analyze their own data set. Apply by December 7, 2018. Visit https://qubeshub.org/groups/r4dberfmn BRING BIOINFORMATICS TO YOUR BIOLOGY CLASSROOM Led by William Tapprich and Adam Kleinschmit If you are a biologist, you and your students need bioinformatics! We can help you get what you need with relatively little pain. Participants will integrate bioinformatics modules in introductory undergraduate biology courses.

You will customize and implement newly designed educational modules exploring sequence similarity as a window to understanding a wide range of biological questions. Apply by December 10, 2018. Visit https://-/qubeshub.org/groups/niblse2019 SERENITY NOW! Led by Drew Lamar Are you interested in developing students data science skills in your biology course? Participants will adapt data-driven modules for undergraduate life science courses using the software tools Radiant and Serenity. These tools are platform-independent browser-based interfaces to bring data science tools to the classroom, with a particular focus on data visualization, communication, and bridging students to R scripting skills. Apply by December 15. Visit https://-qubeshub.org/groups/serenityfmns19 MAKING THE CASE: Using Case Studies to Increase Quantitative Biology Skills Led by Phil Gibson Are you interested in adopting case studies that address quantitative reasoning skills? Participants will use case studies available from the National Center for Case Study Teaching In Science as a platform for introducing these important data literacy skills into biology classrooms. Apply by December 7, 2018. Visit https://qubeshub.org/groups/-cases2019 MAKE TRUBLE: Make Teaching with R in Undergraduate Biology Less Excruciating Led by Suann Yang Are you an undergraduate biology instructors with prior R programming experience who are interested in learning to teach with R to students with little programming experience? You will develop, implement, and share modules using Swirl. Swirl provides a guided, interactive experience through on-screen prompts and exercises which students answer directly in the RStudio console. Apply by November 30, 2018. Visit https://-qubeshub.org/groups/make_truble NEON Data Education Fellows Faculty Mentoring Network Led by Megan Jones and Kusum Naithani The National Ecological Observatory Network (https://www.neonscience.org/) and the QUBES are pleased to offer networking and professional development opportunities through this FMN for faculty interested in implementing or adapting existing NEON teaching materials to their educational settings.

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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

Software DAMBE update

Dear All,

A full implementation of the relaxed clock for dating has been added to DAMBE. I have uploaded the new version of DAMBE (version 7.035), together with sample files, to its release site at:

http://dambe.bio.uottawa.ca/DAMBE/dambe.aspx Earlier versions of DAMBE has the 'Relaxed clock' checkbox grayed (disabled). It is now enabled (checked) by default.

I have also added a brief tutorial on how to do dating with DAMBE at

http://dambe.bio.uottawa.ca/software_download/-DatingWithDAMBE.pdf A more comprehensive set of DAMBE tutorials, useful for teaching purposes is at

http://dambe.bio.uottawa.ca/software_download/-LabManualDAMBE.pdf For those who don't know what DAMBE is: it is a comprehensive software workbench for molecular biology, genomics , molecular evolution and phylogenetics. Although it is a Windows program, it has been packaged to use in MAC and Linux.

Best Xuhua http://dambe.bio.uottawa.ca http://science.uottawa.ca/biology/people/xia-xuhua https://scholar.google.ca/citations?hl=-en&userÃ≫AS_FcAAAAJ&view_op=list_works Xuhua Xia <Xuhua.Xia@uottawa.ca>

SouthAfrica VolResAssist EvolutionPhysiologyBehaviour

We are looking for several volunteer research assistants to carry out exciting experiments with captive Damaraland mole-rats, Fukomys damarensis at the Kuruman River Reserve, in the South African Kalahari Desert.

Broadly, our research investigates the influence of genes, hormones and social factors on individual developmental, growth and behaviours. Currently, we are particularly interested in characterizing the phenotypical differences

between breeding and non-breeding individuals and to develop an integrated understanding of the causes and consequences of contrasts in reproductive output.

Applicants should be available for a period of 6 to 12 months starting as soon as possible. They should be hardworking, enthusiastic, physically fit, and prepared for long hours in the laboratory. Successful applicants will be responsible to run experiments and will be involved in data collection (behavioural observations, urine and blood samples). Other general tasks related to data editing, animal handling and husbandry will also be expected. Working weeks will not exceed 45 hours.

This position is particularly suited, but not exclusively, for people aiming to carry on their academic education or a management position in a research project. Successful applicants can expect to gain invaluable experience in animal handling procedures and in conducting and managing experiments. They will also gain database skills (MySQL) and will be provided with the opportunity to work on a personal analysis project using the data available in our existing database. Costs of food and accommodation while at the project will be covered.

If you are interested in this position send your CV and cover letter stating your availability to Philippe Vullioud (philippe.vullioud@gmail.com). Shortlisted applicants will be invited for a Skype interview.

Deadline: 15th November 2018 (the position will however remain open until filled)

Philippe Vullioud <philippe.vullioud@gmail.com>

SouthAfrica VolResAssist MoleRatBehaviour

We are looking for several volunteer research assistants to carry out exciting experiments with captive Damaraland mole-rats, Fukomys damarensis at the Kuruman River Reserve, in the South African Kalahari Desert. Broadly, our research investigates the influence of genes, hormones and social factors on individual developmental, growth and behaviours. Currently, we are particularly interested in characterizing the phenotypical differences between breeding and non-breeding individuals and to develop an integrated understanding of the causes and consequences of contrasts in reproductive output.

Applicants should be available for a period of 6 to 12 months starting as soon as possible. They should be hardworking, enthusiastic, physically fit, and prepared

for long hours in the laboratory. Successful applicants will be responsible to run experiments and will be involved in data collection (behavioural observations, collection of blood and urine samples). Other general tasks related to animal handling and husbandry and data handling will also be expected. Working weeks will not exceed 45 hours.

This position is particularly suited, but not exclusively, for people aiming to carry on their academic education or a management position in a research project. Successful applicants can expect to gain invaluable experience in animal handling procedures and in conducting and managing experiments. They will also gain database skills (MySQL) and will be provided with the opportunity to work on a personal analysis project using the data available in our existing database. Costs of food and accommodation while at the project will be covered. If you are interested in this position send your CV and cover letter stating your availability to Philippe Vullioud (philippe.vullioud@gmail.com). Shortlisted applicants will be invited for a Skype interview. Deadline: 15th December 2018 (the position will however remain open until filled)

Philippe Vullioud <philippe.vullioud@gmail.com>

SSE GouldPrize CallForNominations

The Society for the Study of Evolution is pleased to announce the call for nominations for the annual Stephen Jay Gould Prize, which recognizes individuals who have increased public understanding of evolutionary biology and its place in modern science. The recipient will receive $5,000 USD and will present the Public Outreach Seminar at Evolution 2019 in Providence, RI < http://www.evolutionmeetings.org/-evolution-2019—providence.html >. The awardee should be a leader in evolutionary thought and in public outreach who can deliver an inspiring lecture for both professionals and the broader public. Nominations are due *January 15*. Learn more here < http://www.evolutionsociety.org/index.php?module=-content&type=user&func=view&pid > .

– *Kati Moore* *Communications Specialist* *Society for the Study of Evolution* communications@evolutionsociety.org www.evolutionsociety.org SSE Communications <communications@evolutionsociety.org>

SSE
GraduateResearchExcellenceGrants

The Society for the Study of Evolution (SSE) is pleased to announce the 2019 Graduate Research Excellence Grants (GREG) V R.C. Lewontin Early Awards. These awards assist students in the early stages of their Ph.D. programs by enabling them to collect preliminary data (to pursue additional sources of support) or to enhance the scope of their research beyond current funding limits (e.g. by visiting additional field sites, or working at other labs). Awards will be made up to $2500. Proposals will be due *February 15*. Learn more and apply here < http://-www.evolutionsociety.org/content/society-awards-and-prizes/graduate-research-excellence-grants.html#greg1 > .

– *Kati Moore* *Communications Specialist* *Society for the Study of Evolution* communications@evolutionsociety.org www.evolutionsociety.org SSE Communications <communications@evolutionsociety.org>

PostDocs

AMNH NewYork EvolutionaryBiol

AMNH.RGGS_Postdoctoral_Fellowship_Program

The Postdoctoral Research Fellowship Program at the American Museum of Natural History provides training to postdoctoral investigators to carry out a specific project within a limited time period. The project must fit into one or more of the Museum's areas of interest: Anthropology, Invertebrate Zoology, Paleontology, Physical Sciences (Astrophysics and Earth & Planetary Sciences), and Vertebrate Zoology. This Fellowship Program is designed to advance the training of the participant by having him/her pursue a project in association with Museum professionals in the Museum setting.

Postdoctoral Fellows are expected to conduct their work at the Museum. Applicants are encouraged to contact potential curatorial sponsor(s) prior to applying. Appointments are typically made for two years. In addition to a competitive salary and benefits, limited relocation, research and publication support is provided. Newly graduated or soon-to-graduate PhDs may apply.Fellows must have received their degrees or deposited their dissertations before they can begin their appointments. There are no citizenship or geographic requirements to apply.

Four Types of Postdoctoral Fellowships Are Available: 1. RGGS Postdoctoral Fellowships: Application November 15, 2018 2. Gerstner Scholars in Bioinformatics and Computational Biology: Application Due November 5, 2018 3. Frank M. Chapman Memorial Fund Research Fellowship - Ornithology 4. AMNH-Bard Research Fellowship in Museum Anthropology

For more info and to apply, please visit: https://-www.amnh.org/our-research/richard-gilder-graduate-school/academics-and-research/fellowship-and-grant-opportunities/postdoctoral-research-fellowship-program amanuel@amnh.org

ArizonaStateU BiodiversityInformatics

The Biodiversity Knowledge Integration Center (Bio-KIC) at Arizona State University (ASU) invites applications for two postdoctoral research scholar positions in biodiversity informatics. The positions are part of a new Biodiversity Data Science Initiative launched at ASU and led by Beckett Sterner and Nico Franz. The initiative will focus on building an innovative web platform that leverages theoretical advancements and prototype software for taxonomic concept alignment (https://doi.org/10.1093/sysbio/syw023), with the goal to establish a scalable taxonomic intelligence service that will carry value for scientific audiences, science publishers, government agencies, and environmental consulting firms. The platform will accelerate the growth of high-quality, reproducible biological data by driving the adoption of taxonomic intelligence metadata in scientific datasets and journals.

Position 1 ad: https://sols.asu.edu/sites/default/files/-job_12575.pdf Position 2 ad: https://sols.asu.edu/sites/-default/files/job_12643.pdf We are committed to open science and an inclusive, equitable, and team-oriented work environment that promotes the candidate's career and personal advancement. The Biodiversity Data Science Initiative is located within the School of Life Sciences and Natural History Collections at Arizona State University. This setting offers a supportive and stimulating environment, with a diverse collection of faculty with expertise across the life and computational sciences, as well as access to excellent academic and computing resources. The Initiative is further supported by faculty from ASU's School of Computing, Informatics, and Decision Systems Engineering and external experts in data science for systematic biology. In addition, the postdoctoral researcher will be able to take advantage of multiple seminar series and a large community of faculty, postdocs, and students. Arizona State University offers a rich environment for early-career researchers and a wide range of support programs for postdocs.

Exploratory e-mail inquiries are strongly encouraged.

Interested applicants should send a one-page research statement, clearly indicating their qualifications and motivation to join the project, Curriculum Vitae, and contact information for three references to nico.franz@asu.edu and bsterne1@asu.edu. The review of applications is rolling until the search is closed. The start date is flexible, with a preference for January 1, 2019.

Salary is commensurate with experience, with a range of $55,000 to 75,000 annually, plus ASU benefits, for exceptionally well qualified applicants. Reasonable relocation funds are available.

bsterne1@asu.edu

ArizonaStateU EvolutionaryCellBiology

The Geiler-Samerotte Lab (https://biodesign.asu.edu/-kerry-geiler-samerotte) in the Center for Mechanisms of Evolution at Arizona State University (ASU) invites applications for a Postdoctoral Research Associate in the area of evolutionary cell biology. Research in the Geiler-Samerotte Lab focuses on understanding how basic features of cells (e.g. induction of a stress response) modify the phenotypic impact of mutations. To address this question, the lab utilizes high throughput approaches in yeast to quantify how the impact of mutations changes as the environment or genetic background is subtly altered. These measurements yield testable predictions about how new mutations will interact or about the ranges of conditions in which evolution experiments performed in the lab will follow the same trajectories.

The ideal postdoctoral candidate has strong interest in evolutionary biology, strong wet-lab skills in cell and molecular biology, as well as experience with some of the following: yeast or microbial cell culture, next generation sequencing library preparation, genome editing technology (e.g. CRIPSR), high-throughput data analysis, scripting in python or the R programming language, knowledge of population genetics and statistics. Opportunities to gain experience in the aforementioned categories, as well as experience teaching and mentoring students, are available.

The Geiler-Samerotte lab offers a vibrant work environment. The lab is housed in the newest research building (opened in 2018) of the Biodesign

Institutes at ASU, featuring an open floor plan in the laboratory as well as lounge areas that encourage collaboration within the Center for Mechanisms of Evolution (https://biodesign.asu.edu/mechanisms-evolution/faculty). The community of evolutionary biologists in Arizona is extensive, offering opportunities for collaboration within ASU and beyond (http://-/asupopgen.org/az-popgroup/). For more information, please email kerry.samerotte@asu.edu or apply here: https://postdocjobs.com/posting/7054334 Kerry Samerotte <kerry.samerotte@gmail.com>

BamfieldMarineSciences BritishColumbia Evolution

BMSC Postdoctoral Fellowship Opportunity Location: Bamfield Marine Sciences Centre, Bamfield, Vancouver Island, BC, Canada Closing Date: 15-Jan-2019

The Bamfield Marine Sciences Centre (BMSC) is pleased to announce an exciting Postdoctoral Fellowship (PDF) opportunity. Preference will be given to supervisors who nominate outstanding candidates with demonstrated research accomplishments and excellent communication skills.

The successful candidate is expected to conduct original research consistent with the mandate of BMSC. BMSC supports high calibre research and provides unparalleled access to natural and cultural sites. We expect the candidate will address scientific questions and challenges of the 21st century that persist in areas such as the marine sciences, biodiversity, ecology, evolution, comparative physiology, archaeology/anthropology indigenous studies as well as the development of research-informed teaching. The PDF will be expected to work full time at BMSC, foster interactions within the BMSC community, organize a working group retreat, and teach a directed studies course in undergraduate student research in our Fall Semester. BMSC is a shared campus of five Western Canadian Universities (Universities of Victoria, Calgary, Alberta, British Columbia, and Simon Fraser University), but nominations of candidates will be accepted from any supervisors with research programs being conducted at BMSC.

Application deadline: January 15, 2019 Start date: May 1, 2019

Salary: $48,000 annually; Standard BMSC benefits package Research stipend: $5,000 annually to cover station related expenses (e.g., boat time)

The nomination package should include:

1) the Curriculum Vitae of the nominee; 2) free-form proposal describing the research (2 pages); 3) a one-page letter from the supervisor describing the professional development program to be offered to the nominee and the potential contributions of the nominee to training and learning; 4) two letters of recommendation for the nominee

Note: It is preferred that the supervisor submit the application package to BMSC on behalf of the applicant, however direct submissions (with the exception of letters of reference which should be sent by referees to BMSC as separate submissions) will be accepted.

Application packages should be emailed as a single PDF to the research@bamfieldmsc.com

Once the nomination package is reviewed and the proposed PDF is approved, an 18-month term position will be offered. Funding permitting, renewal of the fellowship may be approved following an evaluation of progress after the first term.

The BMSC is a world-class teaching and research facility located in traditional territories of the Huu-ay-aht First Nation, on the outer west coast of Vancouver Island, Canada. Our campus is situated on 65 hectares in Barkley Sound with access to a remarkable diversity of marine, terrestrial, freshwater and cultural sites of the North East Pacific basin. Located in the heart of Canadas Pacific Rim National Park, the town of Bamfield has a small but exceptionally vibrant community that shares a history of trust and collaboration with the Huu-ay-aht First Nation. The town is also the northern terminus of an iconic Canadian Trail, the West Coast Trail. The stunning surroundings of the rain forest, deserted beaches, uninhabited islands, rugged coastline, and world class diving inspire creativity and discovery.

Sean M. Rogers, Ph.D. Associate Professor, Biological Sciences, University of Calgary Director, Bamfield Marine Sciences Centre < http://www.bamfieldmsc.com > Research Website < http://people.ucalgary.ca/-˜srogers/ >

director@bamfieldmsc.com

CharlesU Prague SpeciationGenomics

Postdoc position on speciation history in nightingales

Available from May 2019 to December 2021 (the starting date is flexible) Application deadline: 21th December 2018

Project description: Patterns of genetic variation within and between species enable to make inferences about demographic history of species, levels of post-divergence gene flow as well as evolutionary forces acting on specific genes. Such information can provide a valuable insight into the history and mechanisms of speciation. This project aims at understanding the complex history of speciation in two closely related passerines, the Common Nightingale and the Thrush Nightingale, that hybridize in a zone of secondary contact. The successful candidate will use the whole-genome sequences from multiple individuals of both nightingale species from sympatric as well as allopatric populations. These data will be used to (1) model the demographic history of species divergence, (2) explore the genomic landscape of interspecific differentiation and divergence and identify specific genomic regions with reduced introgression between species that underlie reproductive isolation, (4) identify specific genes with signs of adaptive introgression, and (3) seek for signatures of selection on sympatric populations, which might unravel mechanisms of reinforcement and/or ecological character displacement at the genetic level. The results will provide a unique insight into the mechanisms or species origin as well as the role of genetic introgression in adaptive evolution.

Candidate experience: The successful candidate will be mainly responsible for the bioinformatic part of the project. The position requires experience in analysis of large-scale next-generation sequence data and the ideal candidate should have background in population genetics. Programming skills are desirable. Experience in the wet lab is a plus, but is not necessary. The candidate may be involved in the fieldwork if he/she wishes.

Research group: The selected candidate will work in a young independent research group of population and speciation genetics. The group is based at the Department of Zoology, Faculty of Science, Charles University, which belongs to the leading research institutions in the Czech Republic. The Faculty of Science is situated in

the center of Prague, one of the world's most beautiful and monumental cities. Please see the web pages of the group for more details (http://web.natur.cuni.cz/˜radkas/).

How to apply: If interested, please, send (1) CV including a list of publications, (2) copy of PhD diploma, (3) motivation letter, and (3) contact details for 2'3 references to Radka Reifova (radka.reifova@natur.cuni.cz) by 21th December 2018.

– RNDr. Radka Reifová, Ph.D. Phone: +420 221 95 1852 E-mail: radka.reifova@natur.cuni.cz Web page: www.natur.cuni.cz/˜radkas/ Department of Zoology Charles University Faculty of Science ViniÄná 7, 128 44 Praha 2

"RNDr.   Radka   Reifová,   Ph.D." <radka.reifova@natur.cuni.cz>

CIBIO-Inbio Portugal RuminateGenomics

Postdocs:

Agrigenomics group (CIBIO-Inbio Portugal, https://cibio.up.pt/research-groups-1/details/genepop) is searching for two enthusiastic post-docs to study Genome Characterization of Native Portuguese Domestic Goat and sheep and its ruminar microbiome.

Specific requirements are: solid background on population genetics and evolution as well strong experience with scripting and programming languages in a Unix environment (Perl, Python, Javascript, SQL) and compiled languages (e.g. C++), relational databases, and usage/construction of computational pipelines. Ability to work independently and with theoretical and empirical population genetics researchers is important. Prior experience with NGS data (shotgun seq, RADseq, WGS and shotgun metagenomics microbiome) is preferred. Finally, candidates must have experience in writing research reports, and working in multidisciplinary and international teams.

One of the post-doc will be focused on population genetics and NGS analysis. Further details can be found here:

http://www.eracareers.pt/opportunities/-index.aspx?task=global&jobId6139

The other Post-doc will be focused on shotgun metagenomics microbiome analysis. Further details can be found here:

http://www.eracareers.pt/opportunities/-index.aspx?task=global&jobId6141 The applications are formalized at the electronic address

http://www.cibio.pt

with following documents in a digital form, in PDF format:

i) Curriculum vitae; ii) Motivational Letter; iii) Qualifications Certificate; iv) Other relevant documentation

The application period is from 14/11/2018 to 05/12/2018.

Lucia Perez <lucia@cibio.up.pt>

ClarkU FungalEvolutionaryGenomics

Post-doc in fungal functional and evolutionary genomics, Clark University

The Hibbett lab at Clark University seeks an outgoing, creative, and highly collaborative Postdoctoral Fellow to conduct research on functional and evolutionary genomics of wood-decaying Fungi (Agaricomycetes and Dacrymycetes). Up to two and half years of support are available. The starting date is flexible, as early as January, 2019, but the Fellow should be in place by early summer 2019.

The principle responsibilities of the Postdoctoral Fellow will be to conduct comparative functional and evolutionary analyses of transcriptomic data from fungi growing on wood wafers. The central goal of the project is to understand the derivation of the brown rot wood decay mechanism from white-rot ancestors in terms of shifts in the timing and spatial dimension of gene expression (complementing prior analyses of changes in gene copy numbers). Applicants should have strengths in evolutionary genetics and genomics, including phylogeny-based analyses of gene expression data, analyses of selection on genes and genomes, and comparative phylogenetic analyses of gene family expansion/contraction. Familiarity with fungal diversity and genetics, and the biochemistry of decay, will be helpful but are not essential. Strengths in oral and written communication, and excellent graphics capabilities, are required.

This project is supported by a grant from the US Department of Energy, and is part of a collaborative research effort led by Dr. Jonathan Schilling, University of Minnesota and involving several other partner laboratories. The consortium will offer opportunities for collaboration and exchange beyond Clark University.

The candidate will also have opportunities to participate in an ongoing comparative genomic study of shiitake mushrooms (Lentinula edodes) and related species, which is supported by the DOE Joint Genome Institute Community Science Program.

Clark University is one of the oldest PhD-granting institutions in the United States. Currently, there are about 2300 undergraduates and 1000 graduate students. The Biology Department has a small but close-knit community with ten tenure-track faculty members (four women, six men), with several full-time Visiting or Research Professors and Postdoctoral Fellows, 16 PhD students and six Masters students. The Department prides itself on meaningful integration of undergraduate education and research. The Postdoctoral Fellow will have opportunities to mentor undergraduates.

Worcester is the second-largest city in Massachusetts, and includes seven colleges and universities, including the University of Massachusetts Medical School, Worcester State University, Worcester Polytechnic Institute, and the College of the Holy Cross. The Boston/Cambridge area is about a one-hour drive from Worcester, and is connected by the MBTA Commuter Rail. Providence Rhode Island and the Amherst-Northampton area are within easy driving distance. Worcester is culturally and ethnically diverse, and includes an art museum, several performance venues, and numerous restaurants and microbreweries. Housing prices remain relatively low, particularly compared to eastern Massachusetts. There are many state parks, reservations and conservation areas that provide opportunities for hiking, skiing, mountain biking, etc. The mountains, rivers, and Atlantic coast of New England can all be reached in a day trip.

Prospective applicants should send a letter describing research interests and career goals (including teaching interests, if appropriate), a curriculum vitae, reprints, and names and contact information for three references via e-mail to dhibbett [at] clarku [dot] edu. General inquiries are also welcome.

Applications from members of groups that are under-

represented in science are particularly encouraged.

David Hibbett <DHibbett@clarku.edu>

ColumbiaU
EcoEvoEpiTickBorneDisease

A postdoctoral fellow position is available in Maria Diuk-Wassers EcoEpidemiology lab at the Department of Ecology, Evolution, and Environmental Biology (E3B), Columbia University. The applicant will join a collaborative project with Yi-Pin Lin and Laura Kramer (Wadsworth Center, NY State Dept of Health, Albany, NY), Sergios-Orestis Kolokotronis (SUNY Downstate Medical Center, Brooklyn, NY) and Ben Adams (University of Bath, Bath, UK) to study strain dynamics and host specialization in Borrelia burgdorferi, the Lyme disease bacterium, recently funded by the NSF Div. of Integrative Organismal Systems (IOS). This project offers a unique opportunity to integrate long-term field data collection, lab transmission experiments, molecular evolutionary epidemiology, and mathematical modeling to examine the processes driving B. burgdorferi diversity and host specialization.

For more info on the research teams, see: - Maria Diuk-Wasser [eco-epidemiology] at https://blogs.cuit.columbia.edu/mad2256 - Yi-Pin Lin [host-pathogen interactions] at https://www.wadsworth.org/senior-staff/yi-pin-lin - Laura Kramer [host-pathogen interactions] at https://www.wadsworth.org/senior-staff/laura-kramer - Sergios-Orestis Kolokotronis [molecular evolution] at http://kolokolab.org - Ben Adams [biomathematics] at https://people.bath.ac.uk/ba224 Candidates should have a doctoral (or equivalent) degree in ecology, epidemiology, microbiology or related fields. Background in molecular biology methods is required, in addition to skills in one or more of the following areas: population or community ecology, population genetics or dynamic modeling of microbes/vectors/vertebrate reservoir hosts. Highly desirable skills: knowledge of high-throughput sequencing methodology and relevant bioinformatics; field and laboratory animal handling experience.

The successful candidate must be capable of working independently in an interdisciplinary environment and have strong quantitative and writing skills evidenced by scholarly publications. In addition to the formal collaborations, opportunities exist for collaboration with the Columbia U Mailman School of Public Health, Columbia

Earth Institute, the American Museum of Natural History, the Wildlife Conservation Society, EcoHealth Alliance, and the NY Genome Center.

Women and minorities encouraged to apply. Columbia University is an equal-opportunity, affirmative-action institution committed to cultural diversity and compliance with the ADA. The University encourages all qualified individuals to apply, and does not discriminate on the basis of any protected status, including veteran and disability status.

Application deadline: December 1, 2018. The position will remain open until filled. Expected start date: May-June 2019.

Salary is commensurate with experience. Applications should include a CV, a statement of research interests, and the contact information of 3 referees in a single PDF file to be sent to mad2256@columbia.edu.

Maria Diuk-Wasser, PhD Columbia University Dept. of Ecology, Evolution and Environmental Biology New York, NY 10027, USA

koloko@amnh.org

Fellowship Details Putnam Fellows are full-time employees of Harvard University during their tenure, with stipends of up to $48,000 per year depending on the duration of the fellowship, and are eligible for health insurance benefits. Modest support is available for research expenses and travel costs. The fellowship is typically awarded for 2 years, pending a satisfactory progress report at the end of the first year. Putnam Fellows are expected to be in full-time residence at the Arboretum and are provided office and research space.

The Putnam Fellowship is an independent post-doctoral position. As an independent scholar, Putnam Fellows have access to shared laboratories, resources, and interactions with fellow scientists, students and staff. It is not necessary to have a specific faculty host. More information is available via our website: http://-arboretum.harvard.edu/research/fellowships/ . – Faye Rosin, PhD Director of Research Facilitation Arnold Arboretum of Harvard University 1300 Centre St Roslindale, MA 02131

phone: (617) 384-5095 fax: (617) 384-6596

frosin@oeb.harvard.edu http://arboretum.harvard.edu/ "Rosin, Faye M" <frosin@oeb.harvard.edu>

HarvardU PlantEvolution

KansasStateU MammalianGenomicsGlobalChange

Katharine H. Putnam Fellowships in Plant Science

The Arnold Arboretum of Harvard University invites applicants for research fellowships in any field of plant science including evolution, ecology, and development. Putnam Fellowships offer excellent opportunities for advanced research and study using the Arboretums living collections of woody plants. Scientists with a PhD and who have identified an independent research project that would utilize the Arboretums living collections are encouraged to apply. The living collection, numbering some 15,000 plants, in over 2,200 species, is distinguished as one of the most thoroughly documented collections of temperate woody plants in the world. Taxonomic diversity and breadth within the collection are noteworthy, and the floras of China, Japan, and Korea are particularly well represented.

Proposals are sought from early-career individuals with a PhD in plant biology, evolution, plant genetics, plant ecology, horticulture, or related discipline. Applicants should be well positioned to conduct original, independent research and to publish their findings in peer-reviewed publications.

Fellow (Post Doc) (Mammalian Genomics and Global Change)

About This Role:

The Division of Biology seeks a highly motivated person to fill the open position of postdoctoral scientist working in the laboratory of Dr. Andrew Hope < http://www.k-state.edu/hopelab/ >, to investigate species limits, units of conservation, hybridization dynamics, and adaptive gradients among shrews of the Genus Sorex. Specific goals of this work are to use genomic methods to resolve systematic relationships among species via phylogenetic analyses, and investigate how gene flow through time across admixture zones between lineages has contributed to the process of diversification. While involvement at all levels of the research is encouraged (specimen collection to manuscript preparation), primary responsibilities will include genomic library preparation for reduced representation sequencing (Illumina platform) and comparative analyses of resulting datasets. Thus, the successful candidate will have appropriate laboratory and

bioinformatics skills for the handling of next generation sequence data and a publication record demonstrating research expertise in evolutionary genomics, molecular systematics, phylogeography, or a related field.

Why Join Us:

The Division of Biology awards undergraduate degrees in three areas (Biology, Microbiology, and Fisheries, Wildlife & Conservation Biology) and currently serves over 800 majors. Kansas State University is located in the city of Manhattan (http://www.ci.manhattan.ks.us), a pleasant community of about 50,000 located in the scenic Flint Hills of northeastern Kansas, about 2 hours from Kansas City. Local recreational opportunities include a large lake/park system, diverse outdoor activities, athletic events, and a rich program in the performing arts. Manhattan also serves as the regional center for education, health care, commerce, entertainment and communications.

Manhattan, KS - Official Website | Official Website www.ci.manhattan.ks.us The City of Manhattan, Kansas, provides municipal services for more than 50,000 residents.

We Support Diversity and Inclusion:

The Division of Biology < http://www.k-state.edu/-biology/ > in the College of Arts and Sciences seeks to foster diversity in a commitment to recruit < http://-artsci.k-state.edu/about/diversity/index.html >, retain and resource peoples historically under-represented in university education in the United States. Fostering diversity goes beyond increasing the numbers of under-represented students, faculty and staff. It also includes a commitment to substantial curricular offerings, resources, and programming that foregrounds the knowledges, perspectives, cultures, and histories of marginalized communities. A truly diverse college culture and structure will benefit all members of the university community to better serve and excel in an increasingly global and multicultural world.

What Youll Need to Succeed:

Minimum Requirements:

* A Ph.D. must be completed by start date with expertise in evolutionary genomics, molecular systematics, phylogeography, or related field

Preferred Qualifications:

* Knowledge of bioinformatics scripting (e.g., R, Perl, Python)

How to Apply:

Please submit the following documents:

1. Cover letter describing your research interest, goals and past research achievements 2. Curriculum vitae 3. Relevant PDF reprints 4. Names and contact information of two individuals willing to provide letters of recommendation. 5. Questions can be addressed to Dr. Andrew Hope <ahope@ksu.edu>

Screening of Applications Begins:

December 1, 2018, and continue until position is filled.

Salary Range/ Pay Rate:

$ 47,476 - $ 55,000

Equal Employment Opportunity:

Kansas State University is an Equal Opportunity Employer of individuals with disabilities and protected veterans and actively seeks diversity among its employees.

Background Screening Statement:

In connection with your application for employment, Kansas State University will procure a Background Screen on you as part of the process of considering your candidacy as an employee.

Andrew G. Hope, Assistant Professor, Division of Biology, 116 Ackert Hall, Kansas State University, Manhattan, KS 66506 USA. Office: 111 Bushnell Hall; Lab: 423 Ackert Hall

Contact: Email - ahope@ksu.edu Office - 785-532-0155 Lab - 785-532-0157 Cell - 785-477-1876

Andrew Hope <ahope@ksu.edu>

Lisbon FishClimateAdaptation 2

<pre> Title: Postdoctoral researcher in Ecological Niche Modelling of marine organisms

Start: January 2019

Location: ISPA - Universitary Institute, Lisbon, Portugal

MARE - Marine and Environmental Sciences Centre

Responsible Investigator: Goncalo Silva - http://-www.ispa.pt/pessoa/goncalo-silva Job URL: http:/-/www.eracareers.pt/opportunities/index.aspx?task=-showAnuncioOport unities&jobId^P4145&idc=1

Contract length: 30 months

Contract terms: 2.128,34euro/ month gross salary (14 salaries/ year)

Application deadline 19th of November

Starting date: January 2019

MARE-ISPA Ecology Lab seeks to hire a full time post-doctoral researcher for ecological niche modelling on marine organisms, particularly on small pelagic fish, under the project SardiTemp - The impact of climate change on the ecology and dynamics of small pelagic fish" reference LISBOA-01-0145-FEDER-032209, funded by Investment and Structural European Funds (FEEI) - through Programa Operacional Regional de Lisboa and by National Funds through FCT.

Our lab investigates the consequences of climate change on marine organisms, with focus on marine fish, some aspects of biology and ecology of a variety of taxa, marine protected areas, and patterns and processes that shape marine species distributions. The candidate must be capable of developing Ecological Niche Modelling of marine species, relating biological data with oceanographic and satellite data. The candidate must hold a doctoral degree (mandatory) preferably in biological sciences, computation sciences or related areas (optional) and must have previous experience in ecological niches modelling in marine environment through mechanistic and/or correlative methods. Candidates who hold a doctoral degree in a different scientific field than the ones mentioned before, but hold experience in the required areas will also be considered. The candidate must have a record of publications of merit in one of the areas mentioned above, in particular, on ecological niche modelling in marine environment and as a first author. The candidate must have advanced knowledge of programming in R and/Python.

Please consult the full announcement http://www.eracareers.pt/opportunities/index.aspx?task=showAnuncioOport unities&jobId^P4145&idc=1 and send your application to ci-candidaturas@ispa.pt and to concursos-ci@ispa.pt.

Goncalo Silva

Investigador / Researcher

ISPA, CRL.

Rua Jardim do Tabaco, no 34 - 1149-041 Lisboa - Portugal

Tel.: (+351) 966647732

Fax: (+351) 218860954

e-mail: gsilva@ispa.pt

website: www.ispa.pt   Descricao: ISPA_CRL_SIMPLES   Descricao: Description: C:\Users\Pedro_Fonseca\AppData\Roaming\Microsoft\Signatures\ISPA - Instituto Universitario_files\image001.jpg

Gonçalo Jorge Franco Silva <gsilva@ispa.pt> </pre>

LundU LepidopteraDiversity

The Systematic Biology Group at Lund University is seeking a post-doc to study lineage diversification in butterflies and moths. The job posting can be found at:

https://lu.mynetworkglobal.com/en/what:job/-jobID:233554/   Application deadline: November 16, 2018

Jadranka Rota <jadranka.rota@biol.lu.se>

Jadranka Rota, PhD Entomology Curator Room E-E331

Lund University Biological Museum Department of Biology Ecology building Solvegatan 37 223 62 Lund, Sweden

Phone: +46 46 222 84 57 www.choreutidae.net www.biology.lu.se/jadranka-rota   Jadranka Rota <jadranka.rota@biol.lu.se>

MaxPlanck Ploen AntibioticResistanceEvolution

Postdoc Position on Antibiotic Resistance Evolution

The position will be based in the Schulenburg group, located at the Max-Planck-Institute for Evolutionary Biology, Ploen, and also Kiel University. The position is for 3 years with the possibility of an extension for 1 year. It is available from 1.1.2019 onwards or soon afterwards. The salary is at level TV-B E13/E14 (depending on the qualification approx. 53.000 - 58.000 per year before public insurance and tax reduction).

Area of work:

Analysis of antibiotic resistance evolution using experimental evolution, genomics analysis, and/or functional genetics. The postdoc is expected to develop a new project on the dynamics and/or genetics of antibiotic resistance evolution, ideally relating to our recent finding on the importance of negative hysteresis as a principle to minimize resistance evolution.

Expectations and Requirements:

PhD in the area of evolutionary biology or microbiology. Comprehensive experience in microbiological techniques and statistical data analysis. Ideally experience in the performance of evolution experiments, bacterial genome sequence analysis, and/or bacterial functional genetic analysis. High competence in English and writing of manuscripts. We are looking for someone with creative ideas, enthusiasm for research, and the ability of performing large-scale experiments. The Max-Planck Institute for Evolutionary Biology aims at a higher proportion of women in research and education, and, therefore, specifically encourage qualified female scientists to apply. Female scientists will be preferentially considered in case of equivalent qualification, competence and achievements. The Max-Planck Institute for Evolutionary Biology specifically supports employment of severely handicapped people. Therefore, severely handicapped applicants will be preferentially considered in case of suitable qualification.

Applications:

Deadline for applications is 12.12.2018. Applications should include a motivation letter (max. 2 pages long), CV, publication list, names and contact details of two referees (who are familiar with the applicants work), and copies of certificates (only PhD). Applications should be sent as a single pdf-document by email to: Prof. Dr. Hinrich Schulenburg, hschulenburg@evolbio.mpg.de

Hinrich Schulenburg <hschulenburg@evolbio.mpg.de>

MaxPlanck Tuebingen Complex-TraitGenomicsAndStemCells Mouse

GENETIC MAPPING IN MOUSE INTERSPECIFIC HYBRIDS USING *IN VITRO* CROSSES (HybridMiX)

Friedrich Miescher Laboratory, Max Planck Campus, Tubingen, Germany

Two postdoctoral positions (both for 2 years in the first instance) are available in the Chan Lab at the Max Planck Institute in Tubingen as part of our HybridMiX team, which is supported by an 1.5M EUR European Research Council (ERC) grant on using "in vitro" mitotic recombination crosses to study species differences between mouse species.

The key innovation in the HybridMiX project is the development of in vitro recombination (IVR) in tissue culture, specifically in F1 interspecific hybrid mouse ES cells for genetic mapping (see Lazzarano et al., PNAS, 2018). IVR allows us to create recombinant cell lines across species of effectively unlimited panel size, at low costs and within. We now aim to map the evolutionary divergence between mouse species at the tissue and cellular level by generating interspecific panels and obtaining their phenotypes via tissue engineering, organ-on-a-chip or droplet microfluidic single-cell methods.

We're looking for highly motivated candidates (both wet and dry-lab) to contribute to the broader team effort in our HybridMiX project in tissue engineering and genetic mapping. The successful candidates should be about to earn, or have recently earned their PhD in the areas of genetics, molecular biology or regenerative medicine (wet-lab position); or statistical, functional or quantitative genomics (dry-lab computational position). Successful candidates should demonstrate their early career success in the form of a first author publication or preprint in prep. The ideal candidates should have the following qualifications.

1) Wet-bench Postdoc: You should demonstrate expertise in tissue culture techniques, especially in the area of differentiation or flow-based cultures. Alternatively you may be familiar with single-cell techniques and with performing functional genomics experiments such as RNAseq, ATACseq and ChIPseq. Together, we aim to use these approaches to dissect the genetic architecture of gene expression evolution in mouse tissue models. For this position, a background in genetic mapping or GWAS will be advantageous.

2) Data analysis Postdoc: You should have a strong background in analyzing genomic data and the proficiency to handle large datasets, (e.g. skills in Unix, R and scripting or programming languages). In our projects we routinely integrate information from diverse sources, including single-cell, linked-read, chromosome conformation capture, as well as image analysis to assist with our analyses of cellular and tissue-level phenotypes and genotypes.

For both positions, a background in evolutionary biology will be helpful, but not a requirement. We are interested in candidates who are keen to apply and develop new genetic tools and technologies. You will have plenty of opportunity to develop independent research ideas within our in vitro cross framework.

We are a multidisciplinary team that focuses on the systems biology of development and evolution in mice, combining population and functional genomics with molecular biology and tissue engineering techniques to investigate the evolution of complex genomes like the mouse. Our research group is funded by the ERC

and the Max Planck Society and is located on the Max Planck Campus in Tubingen, Germany. The Max Planck Tubingen Campus is a highly innovative research hub with world-class genomics and machine learning expertise. Our sequencing core features the Illumina, PacBio and 10X Genomics platforms. English is the working language. All seminars and communications are in English.

The position is available for an initial 2 years with the possibility of extension. Salary and benefits are according to the German public service pay scale (TVoD Bund up to and including E13) and are commensurate with training and experience.

The Max Planck Society seeks to increase the number of women in areas where they are underrepresented, and therefore explicitly encourages women to apply. The Max Planck Society is committed to employing more handicapped individuals and especially encourages them to apply.

For more information please see: http://fml.tuebingen.mpg.de/chan-group/open-positions
 Consideration of applications will begin on 1 Dec 2018. The projected start date is in early 2019 but can be negotiable.

Please send your informal enquires or applications to Dr. Frank Chan at frank.chan@tue.mpg.de. Complete applications should include:

1. a statement of research interests and why you have applied for this position, 2. your CV, and 3. three reference contacts

Publication: Lazzarano et al., Genetic mapping of species differences via in vitro crosses in mouse embryonic stem cells. PNAS, 2018. doi: 10.1073/pnas.1717474115

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Frank Chan Max Planck Research Group Leader

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Melbourne MarineLarvaEvolution

Professor Dustin Marshall is seeking a marine larval biologist, with strong quantitative skills, to explore the ways in which temperature affects the energetics of development in marine invertebrates. This position will be with the Centre for Geometric Biology (www.cgb.org.au) within the School of Biological Sciences at Monash University.

As the successful candidate, you will be expected to undertake experiments to determine the relative performance of different larval types across every stage of the life history, but more importantly demonstrate a strong conceptual understanding of relevant life history theory and have a demonstrated track record in producing high quality publications.

The Centre for Geometric Biology is developing and testing a new theory for how and why organisms grow. Our particular focus is on how the net flux of energy (the energy acquired through food, photosynthesis, or chemosynthesis minus the energy lost to metabolism) changes with size, whether it be cell size or total body size. We are using a range of approaches and systems to test these predictions. For example we work on yeast, bacteria, phytoplankton and animals. We use artificial selection, experimental evolution, ecological experiments, comparative analyses and theoretical models, as well as different types of bioenergetics measurements to explore a wide range of specific questions about organismal growth.

For more information about the Centre please visit our website https://cgb.org.au/ To apply please go to http://careers.pageuppeople.com/513/cw/en/job/582832/ research-fellow

Enquiries

Dustin Marshall, Professor, School of Biological Sciences, +61 3 9902 4449

– Dr. Liz Morris Administration Manager Centre for Geometric Biology School of Biological Sciences Monash University Clayton, Vic 3800 Australia Mob: +61 3 404 069 210 Email: Liz.Morris@monash.edu

liz.morris@monash.edu

MichiganStateU PlantEvolutionaryGenetics

There is an opening for a postdoctoral position available in the lab of Dr. Emily Josephs in the Department of Plant Biology at Michigan State University. The Josephs Lab studies evolutionary genetics of plants (see more at josephslab.github.io). The specifics of the research project are flexible, but could include answering questions about local adaptation to environmental variation and/or climate change, the population genomics of crops and their wild relatives, and adaptation for environmental responses/plasticity. Successful candidates will have demonstrated expertise in one or more of the following areas, although expertise in all areas is not expected: evolutionary genetics, population genetics, quantitative genetics, programming (in R, python, or other languages), statistics, and/or genomic data analysis.

MSU is a fantastic place to be a postdoc, with an favorable cost-of-living:salary ratio, and many other labs engaged in exciting population genetics, plant genomics, and evolutionary research. The Josephs lab is a safe space and is committed to increasing diversity in the scientific community. I therefore strongly encourage applications from diverse candidates with related scientific interests.

Applications will be reviewed starting 11/30/2018, but applicants will be considered until the positions are filled. Please feel free to email with any questions at josep113@msu.edu

To apply, please visit careers.msu.edu, respond to Job #542507 and submit: (1) cover letter, (2) current CV, and (3) contact information for 3 references.

Emily Josephs

Dept. of Plant Biology

Michigan State University

josephslab.github.io

"Josephs, Emily" <josep113@msu.edu>

MurdochU Perth MacroecologicalModelling

Postdoctoral Research Fellow - Landscape Genetics and Macro-ecological Modelling

Murdoch University (Perth Australia) - Environmental & Conservation Sciences

Fixed-term, full time position until 20 June 2021 Associate Lecturer | $65k-$88k plus 9.5% employer superannuation contributions Ref: 1968A01/202117

The ARC Linkage Project "Building resilience to change for mammals in a multi-use landscape" is working to identify critical habitat and dispersal corridors for mammals by applying a novel, interdisciplinary landscape genetics approach to genetic and spatial data. It generates new knowledge on the evolutionary significance of landscapes in the Pilbara that have facilitated species persistence.

The Role The Post-Doctoral Research Fellow will contribute to outcomes of the ARC-funded project through the application of necessary methods and protocols as well as the production of reports, conference presentations and scientific publications. It is expected that the ideal candidate will develop a scholarly research profile and professional expertise relevant to the discipline. The Fellow will join a collaborative team involving researchers based at Australian National University, CSIRO, Western Australian Department of Biodiversity, Conservation and Attractions and WA Museum as well as interacting with project partners Roy Hill Mining, Biologic and WA Biodiversity Science Institute.

Skills and Experience The preferred candidate will have: A PhD in a relevant discipline; Demonstrated knowledge and experience in the application of theory, statistics, and sampling methodologies, preferably in the context of spatial analysis of genetic and/or species distributional data; Well-developed interpersonal skills and demonstrated ability to work collegially and effectively as a member of a research team.

Applicants should refer to the Position Description (see below) for further detail on the duties, skills and experience required for this role.

To Apply Please submit the following documents via the Apply Online button below: A cover letter Your most recent resume (CV) A statement addressing the

selection criteria (found in the Position Description)

Applications sent by post or email will not be accepted. Please note visa sponsorship is not available for this position.

Please visit http://jobs.murdoch.edu.au/ to view the Guide for Applicants and Position Description (these are attached). Here you will also find the online form to submit your application. Please note that emailed applications will not be accepted. Please note visa sponsorship is not available for this position. Murdoch University values workplace diversity, promotes inclusion, and strongly encourages applications from Aboriginal and Torres Strait Islanders, women, and individuals with disability. Applicants who have support or access requirements, are encouraged to advise this at the time of their application, to ensure appropriate assistance is provided throughout the recruitment process.

Position contact: Associate Professor Peter Spencer on +61 8 9360 2489 or at P.Spencer@murdoch.edu.au or Dr Kym Ottewell on +61 8 9219 9086 or at K.Ottewell@murdoch.edu.au

Closing date: 21 November, 2018 (11:59pm)

Information and online application can be found at https://webapps7.murdoch.edu.au/pls/apex/-f?p=2903:5:7904127347736::LEVEL3::P5_ID:7076 P.Spencer@murdoch.edu.au

NTU Singapore EvolPopGenomics

Post-doctoral fellow in Comparative Population Genomics of Betulaceae

Seeking a motivated and creative research fellow to join the Salojarvi research group at Nanyang Technological University, Singapore.

*Project Description:

In this project you will carry out a comparative population genomics study of three closely related sympatric forest tree species from birch family, two diploids and one tetraploid, each having slightly different life styles and ecological niches. Altogether 20 sites from Eurasia have been sampled, and high-quality reference genomes for the species have been completed within the group. Whole genome sequencing of the populations will be carried out to identify convergent and diverging patterns of adaptation among the species, and to understand the extent of gene flow as well as historical population dynamics.

Trees within the birch family have several properties which make them an interesting model for tree genomics. The trees can be easily inbred, and in many cases hybrids between related species can be established. This hybridisation is present also in nature and across species with different ploidy levels. Genetics can be studied by controlled crosses, since flowering can be induced within less than a year from germination. There is an ongoing co-operation with Uppsala Universitet in Sweden to estimate mutation rate and establish birch as the foremost temperate forest tree model.

*Research Environment:

The work is carried out in the research group of Asst.Prof Jarkko Salojärvi. The group studies population genomics and evolution in plants. A particular research interest is the link between microevolution and macroevolution, that is, adaptation in populations versus long-term evolution at genome level. The group is divided between Nanyang Technological University at Singapore and University of Helsinki at Finland. The Singapore group is recently established and focuses on computational analyses, for which the host university has provided ample resources. NTU was ranked the fastest-rising young university globally by Times Higher Education, and 12th in the world in the 2019 QS World University Rankings.

The Finland group was established in 2014 and is a part of Academy of Finland Center of Excellence in Molecular Biology of Primary Producers and Viikki Plant Science Centre. The group is located within the Viikki Biocentre campus, which has exceptional research facilities such as state-of-the-art core facilities for next generation sequencing and high-throughput plant phenotyping. Several research visits to Finland during the research fellow position will be expected.

*Required Qualifications and Application Instructions:

The candidate should preferably have a PhD in population genomics and necessary skills to learn advanced statistics. Experience from R/Python, shell scripting, and strong background of working in a Linux environment with whole genome sequencing data is required.

The position is initially for one year with a possility of extension up to two years, and salary range is 4,400-5,000 S$/year. Starting time is flexible, but preferably between December 2018 - January 2019.

To apply, please send a letter of motivation describing your reasons for applying to the position, CV, transcripts and contact details for at least two references.

All materials should be sent in English to

jarkko@ntu.edu.sg.   Review of applications will continue until a suitable candidate is found.

Reference: Salojärvi, Smolander et al.   Genome sequencing and population genomic analyses provide insights into the adaptive landscape of silver birch. Nature Genetics 49(6):904-912, 2017. https://nature.com/articles/ng.3862 Jarkko Salojärvi, Academy of Finland Research Fellow https://scholar.google.com/citations?user=GmWC5ZsAAAAJ&hl=en   Assistant Professor School of Biological Sciences Nanyang Technological University 60 Nanyang Drive, SBS-02s-88f Singapore 637551

E-Mail: jarkko@ntu.edu.sg

"Salojärvi, Jarkko T" <jarkko.salojarvi@helsinki.fi>

PurdueU MalariaGenomics Evolution

Postdoctoral Research Scientist: Malaria Genomics, Purdue University

The Carpi lab (https://www.giovannacarpi.org) in the Department of Biological Sciences at Purdue University is soliciting applicants for a Postdoctoral Research Associate position focused on malaria population genomics and evolution. The position is linked to projects which aim to (1) determine malaria parasite spatial structure and population connectivity in endemic countries in southern Africa and evaluate how these patterns change as interventions are applied; (2) quantify genetic diversity and the ecological and evolutionary dynamics of co-infecting malaria parasites within-host (mosquito and human). In addition, there will be opportunities to develop independent projects within these research themes. Our group is directly involved in all aspects of data generation and analysis, including study design, generating malaria parasite (Plasmodium falciparum) whole genomes, transmission experiments, population genomics and evolutionary analysis, and the development of genotyping and analytical methods. The successful candidate must be capable of working independently and be keen to work in an interdisciplinary environment. The candidate will have the opportunity to work closely with an extensive network of collaborators at The Johns Hopkins Malaria Research Institute and The Johns Hopkins Bloomberg School of Public Health within the context of the Central and Southern Africa ICEMR, as well as the Big Data Institute at the University of Oxford, and Microsoft Research.

Required Qualifications Ph.D. in Genetics, Bioinformatics, Evolutionary Biology, Computer Science, Mathematics or a related discipline (theoretical and/or applied). Strong background in theoretical/statistical population genetics. Proficiency in the Linux/Unix computing environment and programming language (e.g. Python, R) are required. Candidates must have excellent English writing and verbal communication skills, as well as an established record of high productivity.

How to Apply Applicants should submit a single PDF file via email (gcarpi@purdue.edu) containing (1) a cover letter briefly summarizing past research accomplishments and future goals; (2) a CV; (3) two recent publications/submissions; and (4) the names and contact information for three references. Review of applications will start immediately. This position will remain open until filled. The anticipated start date for this position is early 2019.

Purdue University is an EOE/Affirmative Action employer. All qualified applicants, including minorities, women, individuals with disabilities and veterans are encouraged to apply.

Giovanna Carpi Department of Biological Sciences Purdue University West Lafayette, IN, 47907

webpage: https://www.giovannacarpi.org "Carpi, Giovanna" <gcarpi@purdue.edu>

ScrippsInstitOceanography MitonuclearGenomics

Postdoctoral Position: Scripps Institution of Oceanography/UCSD. Evolutionary and Functional Genomics of mitonuclear interactions

A postdoctoral position is available in the Burton lab at Scripps Institution of Oceanography (SIO) at the University of California, San Diego (UCSD). We are looking for a motivated young scientist to undertake physiological and genomic analyses of hybrid breakdown and incipient speciation in the intertidal copepod Tigriopus californicus. Laboratory hybrids between allopatric T. californicus populations show varying degrees of incompatibility between nuclear and mitochondrial genomes and serve as a model for incipient speciation. Populations along the Pacific coast of North America also show a geographic cline in thermal tolerance providing an excellent system for analyses of evolutionary adaptation to local environments. We use a broadly integrative ap-

proach including functional genomics, transcriptomics, biochemistry, and mitochondrial physiology. Genomics resources for Tigriopus now include an excellent draft genome and transcriptome data from several populations and laboratory hybrids.

The position requires strong laboratory skills as well as some experience with next-gen sequencing and bioinformatic analysis. Strong interest in experimental and evolutionary physiology (e.g., using RNAi or other approaches to understand genotype/phenotype relationships) is required. Candidates will be given considerable freedom in developing their research projects.

Review of applications will begin immediately and will continue until the position is filled. Starting date is negotiable. Interested candidates should email their CV, and a cover letter describing qualifications, research interests and include a list of at least three references.

UCSD is an Equal Opportunity Employer with a strong institutional commitment to excellence through diversity.

Ron Burton <rburton@ucsd.edu>

SorbonneU EvolutionaryBiology

Dear all,

Please find below an opportunity for a postdoc position for 24 months at iEES Paris in Chemical Ecology and Evolutionary Biology.

Mission A post-doc position is available in the Chemoreception and adaptation team (https://-ieesparis.ufr918.upmc.fr/spip.php?article240). Our group is mainly interested in dissecting the mechanisms of olfactory reception in insects and in understanding their evolution in a changing environment. In moths, reproductive success largely depends on mate recognition through the detection of species-specific bouquets of air-borne chemicals called pheromones. The diversification of pheromone signals has likely played a key role in the extensive radiation observed in moths as it seems to be one of the main mechanisms responsible for the evolution of reproductive isolation. Recently we have identified genes underlying pheromone reception in pest moths of the genus Spodoptera, but gene families involved in pheromone production remain poorly studied. Studying the evolution of these genes is crucial to understand how pheromone communication can evolve and participate in reproductive isolation.

Activity The candidate will use standard molecular biology and bioinformatics analyses in order to identify genes potentially involved in pheromone production, and characterize their expression patterns (using RT-qPCR) in 4 species of the genus Spodoptera. The candidate will also use biochemistry approaches (yeast transformation, GS-MS analyses) to determine the substrate specificity of candidate enzymes that may be responsible for the evolution of pheromone blends.

Skills We are seeking a highly motivated candidate holding a PhD in Life Sciences, and with a strong interest for evolutionary biology. Experience in biochemistry and in molecular biology is mandatory, and a background in bioinformatics would be a plus. The candidate should have strong communication and organization skills, and be fluent in English.

Context The post-doc position is available in the sensory ecology department of the Institute of Ecology and Environmental Sciences of Paris. This department involves 10 researchers from Sorbonne University (Paris) and Inra (Versailles), and uses a unique combination of know-how, including bioinformatics, functional genomics, molecular genetics, biochemistry, physico-chemistry, neuroanatomy, imaging, electrophysiology, ethology and modeling, developing approaches from genes to fields, from neurons to biophysical models, from individuals to populations. The lab will provide all the bench equipment and facilities required for the project, which is funded by an ANR grant.

Contact The formal selection process will start early 2019. The contract should start before spring 2019. The term of this post is 24 months. CV and motivation letter should be send to nicolas.montagne@upmc.fr and thomas.chertemps@upmc.fr

Camille MESLIN-AUCLAIR Chargée de recherche / Researcher iEES Paris, Département Ecosens

camille.meslin-auclair@inra.fr Tél. : +33 (0) 1 30 83 31 64 Fax : +33 (0) 1 30 83 31 19 INRA de Versailles-Grignon Route de Saint-Cyr - RD 10 78026 Versailles Cedex - France

http://ieesparis.ufr918.upmc.fr/ Camille Meslin <Camille.Meslin-Auclair@inra.fr>

StockholmU CognitionBrainEvolution

Carl Tryggers Postdoctoral Fellow in the Evolution of Cognition and the Brain at the Department of Zoology, Stockholm University

Closing date: 14th of December 2018

We are seeking to recruit postdoctoral fellow interested to work in the multidisciplinary project "Cognitive evolution in guppies". The project uses the guppy (Poecilia reticulata) as a model to comparatively and experimentally investigate the factors driving cognitive evolution. As such, the project spans over multiple disciplines including field collections, artificial selection, assays of behaviour and detailed tests of cognitive ability, brain imaging and neural density estimations, and analyses of the genomic architecture that orchestrates changes in brain anatomy and cognitive ability.

The project will use both animals from wild populations with known differences in ecology, and from a selection experiment. These animals will be subjected to relevant assays of behaviour, brain anatomy and genomics. The overall aim of the project is thus to increase our understanding of the evolutionary relationship between brain anatomy, cognitive ability and the genome.

The work will mostly be lab-oriented but includes at least one field trip to Trinidad. The project will require hard work but at the same time provide excellent opportunities for personal initiatives and development towards pursuing a successful academic career. The project is undertaken in a brand new section of the large tropical freshwater fish labs in the Department of Zoology with established assays of brain anatomy, several different aspects of cognitive abilities, swimming parameters, personality, individual and collective behaviour, etc.

Postdoctoral positions are appointed primarily for purposes of research. Applicants are expected to hold a doctoral (PhD) degree.

The position is funded by a tax-free 2-year Carl-Tryggers postdoctoral scholarship. Start date: as per agreement.

Stockholm University strives to be a workplace free from discrimination and with equal opportunities for all.

Please apply directly via email to:

Alexander Kotrschal, alexander.kotrschal@zoologi.su.se

https://www.su.se/english/profiles/akotr-1.218779
Please include the following information with your application Â — — — Your contact details and personal data Â — — — Your highest degree Â — — — Contact details for 2'3 references and, in addition, please include the following documents Â — — — Cover letter Â — — — CV ' degrees and other completed courses, work experience and a list of publications Â — — — Copy of PhD diploma Â — — — Publications in support of your application (no more than 3 files).

Alexander Kotrschal <alexander.kotrschal@zoologi.su.se>

UCalgary BamfieldStation SalmonEvolution

The Rogers Lab at the University of Calgary is pleased to announce a Postdoctoral Fellowship (PDF) opportunity to work on Pacific Salmon evolution and genomics at the Nitinat River Hatchery and the Bamfield Marine Sciences Centre (BMSC) on Vancouver Island, B.C.

Application deadline: Review of applications will begin December 15, 2018 until the position is filled Start date: April 1, 2019, but earlier start date possible Salary: 6,000 annually; standard University of Calgary PDF benefits package Project: Sustaining Canada's natural resources and food supply for future generations is a rapidly growing challenge that requires an understanding of how populations will respond and adapt to current and future environmental stressors. Salmon produce food and recreation for the people of the Pacific Northwest and are the keystone species of coastal ecosystems and human economies within this area. Yet, salmon populations are under pressure and we do not understand the epigenetic and genetic factors that influence their odds of survival. In particular, while hatchery programs release millions of fish yearly, it remains unclear how many of these released salmon survive and whether they contribute to increasing the wild population size. The PDF will join a unique and growing partnership between the Nitinat River Hatchery, the BMSC, Department of Fisheries and Oceans (DFO) and the Ditidaht and Huu-ay-aht First Nations to test the environmental and genomic consequences of alternative hatchery salmon rearing practices. The PDF will work closely with Dr. Kristi-Miller-Saunders (DFO) and Dr. Brad Anholt (University of Victoria). Our ability to raise thousands of Coho salmon families used in enhancement programs under different rearing conditions is a unique

and powerful opportunity to understand how hatchery rearing practices may impact salmon survival and the genetics of domestication.

More info on the position and our group can be found here: http://people.ucalgary.ca/˜srogers/pdf-opportunity-on-pacific.html An application package consisting of a Curriculum Vitae and the names of three references should be emailed as a single PDF to srogers@ucalgary.ca.

The BMSC is a world-class teaching and research facility located in traditional territories of the Huu-ay-aht First Nations, on the outer west coast of Vancouver Island, Canada. Our campus is situated on 65 hectares in Barkley Sound with access to a remarkable diversity of marine, terrestrial, freshwater and cultural sites of the North East Pacific basin. Located in the heart of Canadas Pacific Rim National Park, the town of Bamfield has a small but exceptionally vibrant community that shares a history of trust and collaboration with the Huu-ay-aht First Nations. The town is also the northern terminus of an iconic Canadian Trail, the West Coast Trail. The stunning surroundings of the rain forest, deserted beaches, uninhabited islands, rugged coastline, and world class diving inspire creativity and discover

srogers@ucalgary.ca

UCalifornia LosAngeles ConservationBiol

Dear All,

The UCLA La Kretz Center for California Conservation Science < http://www.environment.ucla.edu/lakretz/ > invites applications for its 2018 Postdoctoral Fellowship in California Conservation Science. We seek a postdoctoral scholar who conducts innovative biological research to work with the La Kretz Center and our partner agencies to achieve outcomes that will direct and lead California conservation efforts. Candidates may work in any discipline that provides the scientific underpinnings for the preservation, protection, management, or restoration of at-risk species, environments, or ecological communities in California. Our current emphasis is focused on research related to (i) conservation science at the urban/wildland interface, (ii) urban biodiversity, ecosystems, and ecosystem services, and (iii) California conservation science that leverages networks of protected areas, and successful candidates will most likely perform research at La Kretz that is related to

one or more of these themes.

One of the hallmarks of our postdoctoral program is collaborating with local agencies and NGO leaders, and the successful applicant will be expected to conduct research with our partner agencies that is focused on applied conservation outcomes. To accomplish this, we seek Fellows whose research interests overlap with at least one UCLA faculty member who is a La Kretz affiliate < http://www.environment.ucla.edu/lakretz/-people/affiliates.asp > and one agency partner in California. Successful projects require input from both faculty and agency partners, and we encourage applicants to contact partners to discuss their project prior to the deadline. Our current list of agency partners and contacts includes:

The Nature Conservancy: Sophie Parker < http://-sophie_parker@tnc.org > (restoration; urban conservation; invasive species)

LA Natural History Museum: Jann Vendetti < http://-jvendetti@nhm.org > (mollusk ecology and evolution; species natural history)

U.S. Geological Survey: Robert Fisher < http://-rfisher@usgs.gov > (applied conservation; biodiversity; ecology and evolution)

US Bureau of Land Management: Mike Westphal < http://mwestpha@blm.gov > (applied conservation, climate change)

US Fish and Wildlife Service: Cat Darst < http://-cat_darst@fws.gov > (endangered species management)

Tejon Ranch Conservancy: Bob Reid < http://-www.tejonconservancy.org/breid.htm > (conservation planning; restoration ecology)

Nature Reserve of Orange County: Milan Mitrovich < http://mitrovich@naturereserveoc.org > (protection and recovery of sensitive species)

National Park Service: Katy Delaney < http://-katy_delaney@nps.gov > (amphibian and avian ecology, evolution, and conservation)

National Park Service: Seth Riley < http://-seth_riley@nps.gov > (mammalian ecology, evolution, and conservation)

Department of Defense: Robert Lovich < http://-robert.lovich@navy.mil > (conservation on DoD lands)

We will consider candidates who have recently completed their Ph.D. or will have completed it by August 2019. We envision hiring at least one Fellow this year that will interact with and contribute to our growing team of conservation scientists at the La Kretz Center < https://www.ioes.ucla.edu/lakretz/people/-

?ioesrole=postdoctoral-scholars >. The Fellow is expected to work on the UCLA campus and engage with the faculty, postdocs, and graduate students in the Departments of Ecology and Evolutionary Biology and the Institute of the Environment and Sustainability. Candidates are also expected to meet with agency partners either on campus or at the agency partner's offices as project timelines require.

The La Kretz Fellowship is for two years, subject to review after the first year. The planned start date is September 2019. The position has an annual salary of ~ $50,000 (depending on experience) plus full benefits, an annual research fund of $5,000, and an additional travel allowance of $1000/year to present at a scientific meeting. The Fellow has the option to reside at the newly renovated La Kretz Field Station < http:/-/www.environment.ucla.edu/lakretz/fieldstation/ > (~ 25 miles from

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UCalifornia LosAngeles ConservationBiology

Dear All,

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One of the hallmarks of our postdoctoral program is collaborating with local agencies and NGO leaders. The successful applicant will be expected to conduct research with our partner agencies that is focused on applied conservation outcomes. To accomplish this, we seek Fellows whose research interests overlap with at least one UCLA faculty member who is a La Kretz affiliate and one agency partner in California. Successful projects require input from both faculty and agency partners, and we encourage applicants to contact partners to discuss their project prior to the deadline. Our current list of agency partners and contacts includes:

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To apply, please email to Will Zou, Administrative Assistant (lakretz@ioes.ucla.edu), a single PDF file that includes (i) a cover letter, (ii) your CV, (iii) a research and management accomplishments statement (1-2 page), (iv) a project proposal that includes La Kretz affiliates and agency partners of interest (2-pages max, single-spaced, plus references), and (v) two of your relevant publications. We also ask that you have two letters of reference (one from your Ph.D. advisor), plus a letter from your proposed faculty mentor and your proposed agency collaborator indicating their interest in your work and its relevance to California conservation efforts. Please arrange to have letter writers deliver their reference to Will Zou under separate emails with the subject line 'La Kretz Postdoc letter for XXX (your last name)'. The deadline for completed applications is 4 January 2019. Please e-mail questions to Brad Shaffer, Director of the La Kretz Center.

Best,

UCLA La Kretz Center for California Conservation Science

WILLIAM WEI ZOU <zou@ucla.edu>

UConnecticut EvolutionaryImmunology

A postdoctoral researcher position is available in Dr. Daniel Bolnicks research group (https://-bolnicklab.wordpress.com), in the Department of Ecology and Evolution at the University of Connecticut. The EEB department (https://eeb.uconn.edu) is an engaging work environment, including multiple labs interested in host-parasite evolutionary ecology, and a closely allied Molecular and Cellular Biology department with evolutionary and immunology faculty.

The Bolnick lab has identified naturally evolved variation in stickleback fishes resistance to a severe cestode parasite (Weber et al 2017 American Naturalist; Weber et al 2017 Proceedings of the National Academy of Sciences), including the evolution of a protective but costly immune response. This postdoctoral position is intended to pursue creative basic research related to the evolution and ecology of host defense and parasite immune evasion. Open questions include but are not limited to the ecological and historical context that favors versus inhibits the evolution of costly immune responses, measuring selection and cost/benefit rela-

tionships, or parasite counter-adaptations. Activities may include some combination of field manipulative experiments on stickleback, community ecology research, laboratory experimental immune challenges, genetics, or immunology, as well as data analysis and publication. The precise goals of this position are flexible, to be defined collaboratively by the PI (Dan Bolnick) and postdoc.

Duration: The position is available two years, with extensions contingent on funding availability. Start dates are negotiable; the position is available immediately.

Compensation: Starting salary will be between $48,000, plus excellent health benefits.

Qualifications: Applicants must have a PhD in evolutionary biology, ecology, genetics, or immunology. Prior experience with parasitology, molecular genetics, or immunology is beneficial. Previous research experience and publications should demonstrate a commitment to basic research, creativity, good work ethic, lab skills, organizational ability, and publication productivity.

Applications should electronically submit a single pdf file containing the following, in order: 1) An approximately two page cover letter. The first page summarize your research achievements to date, including relevant skills. The second page should outline a vision of what you would be interested in doing in the Bolnick Lab, and how this fits into your career goals.

3) CV 4) A copy of two publications or submitted manuscripts.

3) A list of three references, with contact information (email, telephone, and mailing address). We will request letters directly from these references, after identifying top candidates.

The application file should be emailed to Dr. Daniel Bolnick (daniel.bolnick@uconn.edu). Include the subject line "Ecological Immunology Postdoc: <YOUR NAME>". Applications must be received by December 1, 2018 for full consideration, though the position is open until filled.

For questions about this position, please email Dr. Bolnick (daniel.bolnick@uconn.edu). For information about the Bolnick Lab (presently at the University of Texas, moving to Connecticut this summer), visit the lab website (https://bolnicklab.wordpress.com), lab photostream (https://www.flickr.com/photos/-98765823@N08/albums), and Dr. Bolnicks Google Scholar page (

https://scholar.google.com/-citations?userÏwxm0AAAAAJ&hl=en).

The University of Connecticut is an Equal Opportunity

Employer. Applicants with questions about disability services can privately discuss their application with the University of Texas Disability Services Office (http://sites.utexas.edu/disability/).

Dr. Daniel I. Bolnick Editor-In-Chief, The American Naturalist Professor, Ecology and Evolutionary Biology

PLEASE   NOTE   NEW   ADDRESSES daniel.bolnick@uconn.edu

MAIL TO: Department of Ecology and Evolutionary Biology 75 N. Eagleville Road, Unit 3043 University of Connecticut Storrs, CT 06269-3043, USA

Office Phone: 860-486-3156 Lab Phone: 860-486-3937 Cell Phone: 512-809-6217

Office:PBB 305C Lab: PBB 317&319; ATW 232, 234, 236 Lab website: https://bolnicklab.wordpress.com "Bolnick, Daniel" <daniel.bolnick@uconn.edu>

UConnecticut InsectEvoDevo

Postdoctoral Research Associate, Evolution of Novelty in Treehoppers

Jockusch Lab, University of Connecticut

Link to pdf announcement: https://drive.google.com/file/d/1ZHdkeJMohkeb8qlEmc1H8_qDULsJzEJn/view   Link   to   UConn   application   portal: https://hcmprodweb.psoft.uconn.edu/psp/HRPRCGA/EMPLOYEE/HRMS/c/HRS_HRAM.HRS_CE.GBL?Page=-HRS_CE_JOB_DTL&Action=A&JobOpeningId 19178&SiteId=1&PostingSeq=1

An NSF-funded postdoctoral position is available in the laboratory of Elizabeth Jockusch, Department of Ecology and Evolutionary Biology, University of Connecticut, to investigate the developmental basis of a fascinating morphological novelty, the highly evolvable pronotal helmet of treehoppers. The research combines comparative transcriptomic and reverse genetic approaches in treehoppers and other hemipterans to test multiple hypotheses related to the origin of the helmet. We are looking for a creative researcher who will work collaboratively with another postdoctoral scholar on the project.

For additional information on the Jockusch lab, please visit our website: http://jockusch.eeb.uconn.edu . The Department of Ecology and Evolutionary Biology (http://eeb.uconn.edu) at the University of Connecticut,

Storrs, has a large and interactive group of biologists with interests in the evolution of development and in arthropods, in a rural New England landscape between Boston and New York.

MINIMUM QUALIFICATIONS Completion of the requirements for a Ph.D. degree in developmental biology, evolutionary biology or a related field by the time of appointment; equivalent foreign degrees are acceptable.

PREFERRED QUALIFICATIONS Experience with developmental genetics, evo-devo, or analysis of transcriptomic datasets; demonstrated record of achievement; demonstrated ability to work both independently and collaboratively; experience working with arthropods is also a plus.

APPOINTMENT TERMS The preferred start date is January 2019 (negotiable). The initial appointment is for one year, with the possibility of renewal. Salary and benefits are competitive. Salary will be commensurate with successful candidates' background and experience.

TO APPLY Please apply online at UConn Careers, (www.jobs.uconn.edu), Staff Positions (Search # 2019178). The following documents should be included in a single pdf file uploaded to the UConn jobs website: (1) letter of interest, (2) curriculum vitae, (3) brief description of research interests and accomplishments (1-2 pages), and (4) contact information for three professional references. Informal inquiries about the position are welcome - please contact elizabeth.jockusch@uconn.edu with any questions.

Applications received by November 30, 2018 will be guaranteed full consideration; review of applications will continue until the position is filled.

Employment of the successful candidate will be contingent upon the successful completion of a pre-employment criminal background check. (Search # 2019178)

All employees are subject to adherence to the State Code of Ethics, which may be found at http://www.ct.gov/ethics/site/default.asp . The University of Connecticut is committed to building and supporting a multicultural and diverse community of students, faculty and staff. The diversity of students, faculty and staff continues to increase, as does the number of honors students, valedictorians and salutatorians who consistently make UConn their top choice. More than 100 research centers and institutes serve the University's teaching, research, diversity, and outreach missions, leading to UConn's ranking as one of the nation's top research universities. UConn's faculty and staff are the critical link to fostering and expanding our vibrant, multicultural and diverse University community. As an Affirmative Action/Equal Employment Opportunity employer, UConn encourages

applications from women, veterans, people with disabilities and members of traditionally underrepresented populations.

elizabeth.jockusch@uconn.edu

UCopenhagen GenomicArchitecture AshDiebackResistance

The Department of Geosciences and Natural Resource Management (IGN) together with the Natural History Museum, Denmark (SNM), under the Faculty of Science, invites applications for a 2-year postdoc position connected to a collaborative research project funded by the Danish Council for Independent Research. The position starts April 1st 2019 or soon thereafter.

The announced contract is one of two postdoc positions in the above-mentioned project, which has the objective to explore the evolutionary potential of natural populations of European common ash (Fraxinus excelsior) to cope with two calamities, the ash dieback pathogen (Hymenoscyphus fraxineus) and the Emerald ash borer (Agrilus planipennis). The project is headed by Lene Rostgaard Nielsen (IGN, KU) in collaboration with national and international researchers. The specific postdoc project will harness whole-genome resequencing to explore the genomic architecture of resistance of common ash to the ash dieback pathogen by 1) detecting loci under selection that confer ash dieback resistance and 2) determining if and how resistance is correlated with fitness-related traits. The successful candidate will be involved in field (phenotyping of trees exposed to the pathogen) and laboratory work, and bioinformatic and population genomic analyses of data. The fellowship includes collaboration with Prof Tom Gilbert's team at SNM, and a research stay with Associate Professor Mike Martin at NTNU, Trondheim, Norway.

If you are interested in the position, please follow the link https://employment.ku.dk/faculty/?show8327 Lene Rostgaard Nielsen <lron@ign.ku.dk>

UCopenhagen PopulationGenomics

A 3-year postdoc fellowship is available in Ida Moltke's lab at the Department of Biology, University of Copenhagen. We are seeking a highly motivated computational postdoc to study genomic signatures of epidemics in humans. For more details see https://goo.gl/ea1V45. Application deadline is December 5, 2018. If you have any questions feel free to e-mail: ida@binf.ku.dk.

ida@binf.ku.dk

UHaifa Israel InsectSymbiosis

A postdoctoral position is available at the lab of Elad Chiel, the University of Haifa, Israel (at Oranim campus, in Tivon), for a period of 2-3 years.

The research is about interactions between parasitic wasps and their microbial symbionts, and will include various bioassays with insects, molecular techniques, microscopy, and more.

Preference will be given to independent, motivated candidates, with background in entomology as well as molecular biology and bioinformatic methods.

Intersted? V send your CV and a letter of interest to Elad_c@oranim.ac.il

http://sciences.haifa.ac.il/newsci/main/index.php/en/-faculty-oranim?idw elad chiel <eladchiel@gmail.com>

UHouston MathBio

Postdoc Positions in Department of Biology & Biochemistry at the University of Houston

The Department of Biology & Biochemistry at the University of Houston invites applications for two postdoctoral positions in Dr. Alexander Stewarts Mathematical Biology group. Applicants with research interests in

evolutionary game theory, collective decision making and the spread of (dis)information are encouraged to apply. Successful applicants will have strong quantitative skills and experience with mathematical modelling and/or scientific programming. The positions require a Ph.D. and relevant academic experience. Responsibilities will include developing an independent research project, mentoring graduate students and developing collaborations with other research groups.

The Department of Biology & Biochemistry has state-of-the-art laboratory space, well-equipped core facilities, high-performance computing resources, and a coastal research and education center. Broad opportunities exist for research collaborations within the University of Houston as well as at nearby institutions. Interested applicants should apply at http://jobs.uh.edu - Post Doctoral Fellow (STA003737) and upload curriculum vitae, cover letter and names and contact information for two references. Review of applications will begin by November 12, 2018 and continue until the positions are filled. The University of Houston is an Equal Opportunity/Affirmative Action institution. Minorities, women, veterans and persons with disabilities are encouraged to apply. Additionally, the University prohibits discrimination in employment on the basis of sexual orientation, gender identity or gender expression.

For enquiries email Alex Stewart at the address below.

Alexander J. Stewart Assistant Professor of Mathematical Biology University of Houston

E: astewar6@CENTRAL.uh.edu

"Stewart, Alexander" <astewar6@Central.UH.EDU>

ULaval Canada 3PDF 1PhD FishOysterGenetics

—— One of Three: ——

The Bernatchez's Lab at University Laval (Québec City, Canada) is currently searching for a postdoctorate researcher to be involved in a new research project entitled:

Brook charr aquaculture production adapted to climate change; the importance of transgenerational epigenetics factors.

This is a an ambitious project funded for 3 years by the NSERC (Canada) Strategic Partnership Grants program which will be conducted in collaboration with colleagues Celine Audet (Ecophysiologist, University of Rimouski)

and Dany Garant (Quantitative geneticist, University of Sherbrooke). The selected candidate will also join Bernatchez' 30-member team of the Canadian Research Chair in Genomics and Conservation of Aquatic Resources which aims to enhance fundamental knowledge pertaining to the evolutionary processes responsible for generating and maintaining genetic diversity within populations of aquatic animals, with relevance for management and conservation.

CONTEXT AND GOALS: The objective of this research project is to provide the scientific basis for the establishment of fish production methods aiming to support the brook charr recreational fisheries (Salvelinus fontinalis), which will be adapted to the new environmental context resulting from climate change. Three objectives integrating the study of epigenetic variation and gene expression combined with the acquisition of physiological information and components of phenotypic fitness and interpreted in the conceptual framework of evolutionary quantitative genetics are targeted: 1) testing the effect of thermal regime during adult sexual maturation and offspring incubation on epigenetic (methylation) changes that may affect survival, growth and resistance to thermal variation during development of young stages of life; 2) estimating, through a factorial crossing design, the heritability and gene-environment interactions of transgenerational plasticity effects on the variation of these phenotypic traits as well as the expression of genes involved in epigenetic mechanisms and physiological performance; 3) assessing the effects of changes in the thermal regime during the production of brook charr on the persistence of methylation patterns, growth, survival and heritability of these traits following stocking in the wild.

This project will also contribute to a deeper understanding of the mechanisms underlying epigenetic processes, in particular to elucidate which phenotypes respond to trans-generational epigenetic transmission and thus clarify the importance of these mechanisms in the adaptive potential of aquatic species. Ultimately, this knowledge will help better predict adaptation potential to climate change.

Required Qualifications: As the recruited person will mainly be in charge of the methylation aspects of the project, we are primarily searching for a prospective candidate with strong and demonstrated bioinformatics and analytical skills to analyse genomic and epigenome (methylation) data sets.

The position is for two years, potentially renewable for a third year and to be filled as soon as possible. The salary is established according to local University standards.

To apply, please send a cover letter describing

your research interests and qualifications, a complete CV and names of three references by e-mail to Louis.Bernatchez@bio.ulaval.ca

Do not hesitate to contact me directly for any further details or questions.

To learn more about:

Our lab, research program, publications, people: The Canadian Research in Genomics and Conservation of Aquatic Resources https://www.bio.ulaval.ca/-louisbernatchez/research_programs.htm Laval University : https://www.ulaval.ca/en/research.html Beautiful Québec City : http://www.quebecregion.com/en/ Louis Bernatchez, Canadian Research in Genomics and Conservation of Aquatic Resources Institut de Biologie Intégrative et des Systemes, Pavillon Charles-Eugene Marchand, Universite Laval, Québec, QC G1V 0A6 Canada

Tel: 1   418   656-3402   email: Louis.Bernatchez@bio.ulaval.ca Twitter : @Lou-Bernatchez

—— Two of Three: ——

The Bernatchez's Lab at University Laval (Québec City, Canada) is currently searching to fill 2 positions: i) a postdoctorate researcher and ii) a Ph.D. candidate to be involved in a new research program entitled:

Environmental DNA as a novel tool for freshwater fish management and conservation in Quebec, Canada.

This is a an ambitious project funded for 3 years by the NSERC (Canada) Strategic Partnership Grants program which will be conducted in close collaboration with the Government of Quebec (Fisheries and Wildlife Department and SEPAQ). The selected candidate will also join Bernatchez' 30-member team of the Canadian Research Chair

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UMaryland EvolQuantitativeGenomics

The Fritz lab is seeking a post-doc to study the evolutionary and quantitative genomic basis of traits involved in insect adaptation to humans and their environment. The job posting can be found at:

https://www.meganfritzlab.com/uploads/-1/0/0/9/100940634/position_announcement-fritz_post-doc_nov2018.pdf   Megan Lindsay Fritz <mfritz13@umd.edu>

UMassachusetts Amherst DarwinFellows

A search in underway for our next Darwin Fellow. Darwin Fellows may associate with any faculty member of our Organismal and Evolutionary Biology graduate program.

My laboratory is sponsoring candidates with interests in microbiome research. The Darwin Fellow will join an active research group that includes external collaborators associated with the Harvard Forest, the DOE Joint Genome Institute (JGI), the DOE Environmental Molecular Sciences Laboratories (EMSL), and New England BioLabs (NEB). Our recent project with the JGI using flow cytometry to separate out single cells resulted over 2,000 genomes and identification of novel viral and bacterial groups, some that are likely associated in the soil with eukarotic hosts. The first paper from the project, on the discovery of giant viruses at Harvard Forest was recently published (https://www.nature.com/articles/-s41467-018-07335-2).

I am willing to sponsor candidates from diverse scientific backgrounds including entymology, mycology, protistology, virology and bacteriology that will bring new perspectives to the project and that are motivated to develop genomic methods for sequencing organisms directly from the environment. We will work with the Darwin Fellow to write grants, including large scale sequencing projects that will provide the Darwin Fellow support in setting up an independent research program. Please contact Jeffrey Blanchard - jeffb@bio.umass.edu - if you are interested.

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The Darwin Fellow Program, founded in 1995, brings promising young postdoctoral researchers to UMASS Amherst. The two-year position provides a unique combination of teaching and research responsibilities and is excellent preparation for academic positions. The fellowship program embodies the interdepartmental collaboration that characterizes the OEB Graduate Program.

Darwin Fellows are active participants in OEB, acting as mentors to graduate students, conducting research, leading seminar courses, and teaching courses in the Biology Department.

OEB draws together more than 90 faculty from the Five Colleges (University of Massachusetts Amherst and Smith, Hampshire, Mount Holyoke and Amherst Colleges), offering unique training and research opportunities in the fields of ecology, organismic and evolutionary biology. Our research/lecture position provides recent PhD's an opportunity for independent research with an OEB faculty sponsor, as well as experience mentoring graduate students and teaching a one-semester undergraduate biology course. To be qualified, a candidate must have a recent PhD in a field relevant to ecology, organismic or evolutionary biology and proven teaching skills. Position subject to availability of funds.

Toapply online, please go to http://careers.umass.edu/-amherst/en-us/job/495959/darwin-postdoctoral-fellow(link is external)and submit a CV, statements of research and teaching interests, and contact information (email) for 3 professional references. Also please arrange to have a letter from your proposed OEB faculty sponsor sent to oeb@bio.umass.edu(link sends e-mail) <oeb@bio.umass.edu>. A list of OEB faculty and additional information is available athttp://-gpls.cns.umass.edu/oeb < https://gpls.cns.umass.edu/-oeb >. Applicants should apply by the priority deadline of December 15, 2018 in order to ensure consideration. The position is expected to start in August 2019. Questions about this search may be sent to:oeb@bio.umass.edu(link sends e-mail) <oeb@bio.umass.edu>.

/UMass Amherst is committed to a policy of equal opportunity without regard to race, color, religion, gender, gender identity or expression, age, sexual orientation, national origin, ancestry, disability, military status, or genetic information in employment, admission to and participation in academic programs, activities, and services, and the selection of vendors who provide services or products to the University. To fulfill that policy, UMass Amherst is further committed to a program of affirmative action to eliminate or mitigate artificial barriers and to increase opportunities for the recruitment and advancement of qualified minorities, women, persons with disabilities, and covered veterans. It is the policy of the UMass Amherst to comply with the applicable federal and state statutes, rules, and regulations concerning equal opportunity and affirmative action./

from https://gpls.cns.umass.edu/oeb/darwin-fellows Jeffrey Blanchard Associate Professor, Biology Graduate Program in Molecular and Cellular Biology Graduate Program in Organismal and Evolutionary Biology University of Massachusetts

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UMississippi MusselMicrobiome

The Jackson lab (www.colinrjackson.com) and Garrick lab (www.rcgarrick.org) in the Department of Biology at the University of Mississippi seek applications for a Postdoctoral Research Associate. This is a 2-3 year position, renewable annually, funded by a collaborative NSF Dimensions in Biodiversity grant. The project is focused on understanding geographic scaling of diversity and interactions between microbiomes and their mussel hosts, mussel communities, and the freshwater environments in which they perform critical ecosystem services.

The Postdoc will focus on generating and interpreting DNA sequence data that can be used to characterize microbiomes, and contribute to phylogenetic analysis of large data sets. Other duties will include leading authorship of publications, presenting research at conferences, and mentoring graduate and undergraduate researchers in the PIs' labs.

Minimum qualifications are a PhD in Biology or related field, and strong publication record relative to opportunity. Preferred qualifications include experience in microbiome analysis, familiarity with microbial ecology and phylogenetics, strong interests in host-microbe interactions and connecting field-based research with genetic analyses, and a willingness to contribute to biodiversity-related public outreach.

Applicants should contact Dr. Colin Jackson via email (cjackson@olemiss.edu) to express interest in the position and for further information.

The start date is anticipated to be late Spring / early summer 2019, but is flexible.

Ryan Garrick Department of Biology 508 Shoemaker Hall University of Mississippi University, MS 38677-1848, USA

webpage: http://www.rcgarrick.org rgarrick@olemiss.edu

UMuenster 3 ProteinEvolution

Three positions (one senior postdoc / assistant professor, one postdoctoral and one as either postdoc or graduate student) in the area of genome and protein evolution.

We are searching for enthusiastic young scientists who would like to join a team working mostly on several aspects of protein evolution and genome evolution, mostly on social insects. Research areas will be on the investigation of genetic mechanisms causing the emergence of denovo protein coding genes, mainly in insects and the molecular basis of how some insects evolved a high degree of eusociality and escaped, at least partially, the tradeoff between longevity and fecundity. For further details see here: bornberglab.org/positions droseu.net/ gepris.dfg.de/gepris/projekt/261675780

Further details on our research can be found here: bornberglab.org/researches

Erich Bornberg-Bauer PhD, Prof. of Molecular Evolution + Genomeinformatics Institute for Evolution and Biodiversity, Huefferstrasse 1 D-48149 Germany Westfalian Wilhelms University Muenster, bornberglab.org ebb.admin@wwu.de Phone / Fax / Direct Line: +49 (0) 251 83 21630 / 24668 / 21011

"E. Bornberg" <ebb@uni-muenster.de>

UNebraska Lincoln PopulationBiology

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 broadly interested in the area of Population Biology. We are seeking applicants who have recently completed, or will soon complete, their PhD and who conduct cutting edge research related to faculty research areas in the Ecology, Evolution & Behavior (EEB) section in the School

of Biological Sciences (http://biosci.unl.edu/research-specializations). POE postdoctoral fellows pursue a research program under the sponsorship of an EEB faculty member and are expected to enhance graduate education, serve as a model for graduate students in career development, and promote interactions among faculty at UNL. While in residence, the postdoctoral fellow are expected to lead a seminar, symposium or outreach project that will appeal to Population Biologists across campus.

Interested candidates should submit a CV, a 1-page description of previous or current research and a 2-3 page description of proposed research, and arrange for two recommendation letters from non-UNL faculty and one recommendation letter from the UNL faculty sponsor (a total of 3 letters) to be emailed to the address below. The research proposal should be developed in collaboration with the proposed faculty sponsor. The successful applicant must have completed their degree by the start date. Priority will be given to applicants who are new to UNL. Research descriptions for past and current POE postdoctoral fellows can be viewed at http://biosci.unl.edu/population-biology/ . EEB faculty at UNL are highly integrative and collaborative, using a wide array of approaches and study systems to study a diverse set of biological questions, from the molecular determinants of adaptation and speciation to multimodal animal communication to the community ecology of extinct mammals to the ecology and evolution of infectious disease. Lincoln is consistently rated as one of the best places to live in America, with a low cost of living, over 130 miles of bike trails throughout the city, and a vibrant restaurant and music scene.

Application materials should be emailed to: Dr. Clay Cressler at: ccressler2@unl.edu. The subject line should read 'Population Biology Post-doc application'. Applications should be received by December 14, 2018. The expected salary will be $45,000 per year. We anticipate notifying the successful applicant by January 31, 2019, with a starting date of September 1 or later in 2019. 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.

Colin Meiklejohn <cmeiklejohn2@unl.edu>

Tel.: (775) 682-5735 www.genomeevol.wordpress.com
david.alvarez.ponce@gmail.com

UNevada Reno BioinformaticsGenomics

UNevada Reno DiseaseDynamics

POSTDOCTORAL POSITION IN BIOINFORMAT-
ICS AND GENOME EVOLUTION AT THE UNIVER-
SITY OF NEVADA, RENO

The Alvarez-Ponce lab at the University of Nevada,
Reno invites applications for a postdoctoral position in
Molecular Evolution. As part of a NSF-funded project,
the successful candidate will investigate how protein
evolution is shaped by different factors, in collaboration
with the groups of David Liberles (Temple University)
and Krisztina Varga (University of New Hampshire).

The successful candidate will have: - A PhD in Biology,
Computer Science or a related field. - A strong interest
in Molecular Evolution. - Experience with bioinfor-
matics analyses, including programming in any script-
ing language (e.g. PERL or Python). - Evidence of
excellence in research and high productivity. - Good
communication and interpersonal skills.

Experience in the following areas would be a plus: -
Molecular evolution analyses, and in particular natural
selection analyses. - Network analyses. - Computer
simulations. - Next Generation Sequencing.

Candidates should e-mail the following information to
Dr. David Alvarez-Ponce (dap@unr.edu) as a single
PDF: - An application letter, addressing the applicants
motivation for the position, and how their experience
and skills fulfill the requirements listed above. - A full
CV. - Contact information for 2 or 3 potential references.

More information about the lab can be found at
www.genomeevol.wordpress.com   The University of
Nevada, Reno is a Tier I institution offering a highly
productive research environment, including outstand-
ing core facilities in genomics and bioinformatics. The
Biology Department has a growing and highly interac-
tive evolutionary genomics research community. Reno
is located in the Sierra Nevada mountains near Lake
Tahoe, and has been recently rated as one of the best
small cities in the US for outdoor recreation and overall
quality of life.

Please circulate this post among suitable candidates.

– David Alvarez-Ponce, PhD Assistant Professor De-
partment of Biology University of Nevada, Reno
Max Fleischmann Agriculture Building, office 140B

ALLEN AND VOYLES LABS POSTDOC POSITION

We seek a highly qualified individual to conduct research
at the University of Nevada- Reno. Our research groups
study disease ecology and infectious diseases dynamics
in wildlife systems, including amphibian chytridiomyco-
sis, white nose syndrome in bats, avian lice, and others.
We are initiating multiple projects using proteomics
approaches to understand host immune functions in
host-pathogen interactions.

The ideal candidate for this position will have a Ph.D.
in biology or a related field, and demonstrated research
experience/training in molecular biology techniques
(especially in proteomics). Individuals with a solid
background work in bioinformatics (experience with
R and/or python), and working with proteomics data
are especially encouraged to apply. We are also seeking
a candidate that is hard-working, enthusiastic, resource-
ful, and able to work both independently as well as
collaboratively across different biological research spe-
cialties.

The University of Nevada at Reno (UNR) is a major
academic and research facility, located in the heart of
the Lake Tahoe region with countless opportunities to
outdoor recreation areas, including access to Yosemite
and King's Canyon National Parks. For the proposed
research, the candidate will work with numerous of
internationally recognized immunologists, chemical ecol-
ogists, and disease ecologists that are present at UNR.
In particular, the proposed research will greatly ben-
efit from the newly established Center for Chemical
Ecology, a state-of-the-art Proteomics and Mass Spec-
trometry Facility, and the expertise available at the
Nevada Center for Bioinformatics. In addition, the
selected individual will be based in the Program for
Ecology, Evolution, and Conservation Biology, which
is comprised of 50+ internationally-recognized faculty
members and diverse research programs within these
biological sub-disciplines.

This is a one-year project and renewal is possible pend-
ing on performance and funding availability. Please
send and questions and application materials (CV, state-
ment of interest, a contact information for three refer-
ences in a single pdf document) to Dr. Jamie Voyles

at jvoyles@unr.edu. Applications will be reviewed immediately and continue until November 30, 2018. For more information on other projects within our research group, please visit the Voyles Lab web page.

Julia Allen <jallen23@unr.edu>

UNorthTexas PopulationGenomics

The Budowle lab (https://www.unthsc.edu/graduate-school-of-biomedical-sciences/molecular-and-medical-genetics/laboratory-faculty-and-staff/) at the University of North Texas Health Science Center is a seeking a postdoctoral research associate in the fields of bioinformatics and population genomics. Candidates must be proficient in at least one coding language, be able to work both independently and in a group setting, and be motivated to apply their talents to the field of forensic genetics. The ideal candidate would have a solid grounding in computation, population genetics and statistics. Well-qualified candidates would have proficiencies in 2 of the 3 areas. The current projects in the lab pertain to mixture interpretation and the analysis of massively parallel sequencing data, especially as it applies to short tandem repeats,metagenomics, proteomics and mitochondrial markers. The position is available for at least 1 year with the possibility of renewal after that.

Interested candidates should send their CVs and a brief statement of their research interests and goals to August at August.Woerner@unthsc.edu for more information.

August.Woerner@unthsc.edu

UPittsburgh MicrobialComparativeGenomics

POSTDOC: Investigating thousands of microbial genomes with novel bioinformatics approaches (University of Pittsburgh)

What power is there in having access to thousands of genomes over a single genome of a species? The Wright Lab (http://wrightlabscience.com) is seeking an enthusiastic postdoctoral scholar to answer this question using thousands of microbial genomes. The successful candidate will develop and evaluate new algorithms for comparative genomics through the lens of evolution. The project will involve building upon the R package DECIPHER (http://DECIPHER.codes/) to elucidate genomic adaptations in thousands of genomes from bacterial pathogens exposed to antibiotics. This research provides the opportunity to work at the forefront of bioinformatics to help combat antibiotic resistance in the clinic.

The Wright Lab is a rapidly growing multi-disciplinary hybrid wet/dry lab at the University of Pittsburgh. We are affiliated with the Department of Biomedical Informatics, and collaborate closely with other experimental evolution and microbiology labs on campus. Our lab offers opportunities to gain experience giving presentations, programming, lecturing, mentoring students, and writing proposals and papers. We are part of a broader effort to make the University of Pittsburgh a leader in applying evolution to the improvement of medicine. The university consistently ranks in the top 10 nationally for biomedical research funding. Pittsburgh, PA is often voted the most livable city in the US featuring eclectic neighborhoods, diverse culinary and entertainment opportunities, as well as easy access to natural areas (http://www.coolpgh.pitt.edu/).

QUALIFICATIONS: Qualifications for this position include a PhD in computer science, bioinformatics, microbiology, or a related field. Ideal candidates would have publications demonstrating experience with code development, bioinformatics, and/or comparative genomics. Expertise in any programming language is sufficient, but a willingness to learn C and R is a necessity. The candidate should 1) be fluent in written and spoken English, 2) be able to work independently and as a member of a team, 3) be hard-working, motivated, and eager to learn, and 4) be interested in developing a career in bioinformatics or genomics.

TO APPLY: Please email applications (including cover letter, curriculum vitae, & names and email addresses for 3 professional references) to Dr. Erik Wright (eswright@pitt.edu). The position is available starting as early as May 2019. Candidates must be willing and able to apply to the postdoctoral research fellowship (https://www.dbmi.pitt.edu/training-programs/) available in the Department of Biomedical Informatics and, therefore, must be U.S. citizens or permanent residents. Review of applications will begin immediately and continue until the position is filled.

Erik Wright Assistant Professor Department of Biomedical Informatics School of Medicine, University of Pittsburgh Pittsburgh, PA http://www.dbmi.pitt.edu/-

person/erik-s-wright-phd-ms ESWRIGHT@pitt.edu

UToronto EcologyEvolution

The Department of Ecology and Evolutionary Biology at the University of Toronto invites applications for a Departmental Postdoctoral Fellowship Area of Research: Ecology and/or Evolution, broadly defined.

Description of duties: The Fellow will collaborate with the advisor(s) on research that is mutually agreed upon by all parties and the Fellow will publish the results in scientific journals. 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.

Salary: $40,500/year Please note that should the minimum rates stipulated in the U of Ts collective agreement fall below the rates stated in this posting, the minimum rates stated in the collective agreement shall prevail.

Required qualifications: Applicants must have a PhD in ecology and/or evolution or a related area of study, and field-specific qualifications as set by the faculty advisor(s).

Application Instructions: All individuals interested in this position must first contact and obtain the agreement of a faculty advisor (or co-advisors); full-time faculty members at the St. George (downtown) campus of the University of Toronto are eligible to serve as advisors (see the list at the bottom of this page for a list of potential supervisors). Once agreement from a faculty advisor(s) has been obtained, 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, copies of 2 publications, and a short (1-3 pages) description of past research accomplishments and future research plans. Applicants should include names and e-mail addresses for two potential referees. All application materials must be submitted as PDF(s) in a single email to: Elizabeth Rentzelos chairsec.eeb@utoronto.ca by the closing date.

Closing date: December 12, 2018. This position will remain open until filled, however we will begin to review complete applications after November 21, 2018

Supervisor: Member(s) of the EEB faculty (St. George campus) who has/have agreed to contribute to the salary of this postdoctoral fellow and to cover her/his research expenses (see list below).

Expected start date: As early as Feb 1, 2019 and no later than Sept 1, 2019 Term: 12 months; renewable for another 12 months subject to performance/suitable research progress FTE: 100%

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 Science, and the School of the Environment. 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 a number of high-performance computing resources, multi-lab bioinformaticians, as well as staff at the Centre for the Analysis of Genome Evolution and Function.

The normal hours of work are 40 hours per week for a full-time postdoctoral fellow recognizing that the needs of the employees research and training and the needs of the supervisors research program may require flexibility in the performance of the employees duties and hours of work.

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 racialized persons / persons of colour, women, Indigenous / Aboriginal People of North America, persons with disabilities, LGBTQ persons, and others who may contribute to the further diversification of ideas.

List of potential advisors for the EEB Postdoctoral Fellow: Aneil Agrawal, Spencer Barrett, Belinda Chang, Asher Cutter, Hlne Cyr, Marie-Jose Fortin, Megan Frederickson, Benjamin Gilbert, Don Jackson, Marty Krkosek, Luke Mahler, Nicole Mideo, Chelsea Rochman, Helen Rodd, Njal Rollinson, Locke Rowe, Tammy Sage, Marla Sokolowski, John Stinchcombe, Art Weis, Stephen Wright

Please see the EEB website for information about their research programs: http://www.eeb.utoronto.ca/-people/d-faculty.htm Note: eligible applicants might also want to apply for the Arts and Science Postdoc-

toral Fellowship Program at the U of Toronto (deadline: Dec. 5

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UVirginia EvolSexBiasedGenes

This is a re-posting of a postdoctoral opportunity that was previously advertised. Please note that applications will continue to receive full consideration until the position is filled.

The Department of Biology at the University of Virginia invites applications for a postdoctoral Research Associate to study the evolution of sex-biased gene expression in the lab of Dr. Robert Cox.

The aims of the position will be closely associated with a new, NSF-funded project using comparative transcriptomics to explore the evolution of hormonally mediated gene expression across lizard species characterized by evolutionary reversals in sexual dimorphism. This project involves both field and lab components and is ideally suited for applicants with interests in the areas of sexual conflict, evolutionary physiology, functional genomics, and/or molecular evolution. Other opportunities for collaboration include studies of natural and sexual selection in wild populations, the quantitative genetics of sexual dimorphism, and a variety of other topics at the intersection of evolution, ecology, and physiology (http://www.CoxLabUVA.org), as well as with other groups in our Evolution, Ecology and Behavior cluster (http://www.EEBvirginia.org).

The Research Associate will work closely with the PI and members of the Cox lab at the University of Virginia while collaborating with the labs of co-PIs Christian Cox (Georgia Southern University) and Henry John-Alder (Rutgers University) to receive additional training in transcriptomics, hormone assays, and other techniques. The Associate will have the opportunity to mentor graduate and undergraduate students, design and lead research in the lab and field, manage and analyze large datasets, prepare conference presentations and manuscripts, and participate in our Evolution Education program for science teachers (http://www.EvolutionEd.org). The ideal candidate will have a

promising record of scientific productivity, appropriate to career stage, in evolutionary biology or genetics. Preferred skills include expertise in RNA-seq, functional genomics, molecular and genome evolution, and programming and bioinformatics related to the above.

The completion of a PhD degree in Biology or a related field by the start date of the appointment is required. The ideal start date of the appointment would be between January and June 2019, but other start dates will be considered for highly qualified candidates. This is a one-year appointment that may be renewed for an additional two, one-year increments, contingent upon available funding and satisfactory performance.

To apply, visit http://jobs.virginia.edu and search on Posting Number 0624021. Complete a Candidate Profile online and attach the following: a cover letter summarizing your research interests, accomplishments, and professional goals; a curriculum vitae with a list of publications; and the contact information for three (3) references.

Applicants with questions about the position and its scientific context and research goals are encouraged to contact Robert Cox at rmc3u@virginia.edu

For questions regarding the application, please contact Rich Haverstrom at rkh6j@virginia.edu

The University of Virginia is fundamentally committed to increasing the diversity of its faculty and staff. UVA is an affirmative action and equal opportunity employer. We welcome nominations of and applications from women, members of minority groups, veterans and individuals with disabilities. We also welcome others who would bring additional dimensions of diversity to the university's research and teaching mission. We believe diversity is excellence expressing itself through every person's perspectives and lived experiences.

The University of Virginia is consistently rated among the top public universities in the United States and is located in Charlottesville, VA, near the scenic Blue Ridge Mountains and Shenandoah National Park. The town and surrounding countryside provide a variety of opportunities to enjoy music and the arts, outdoor recreation, and a thriving food and restaurant scene supported by dozens of local farms, markets, orchards, vineyards, and breweries. Charlottesville is often ranked among the top cities in the country for quality of life and is located just over two hours from the Washington, DC metropolitan area.

– Robert M. Cox Associate Professor, Director of Graduate Studies Department of Biology University of Virginia PO Box 400328 Charlottesville, VA 22904

Office (434) 982-1987 Lab: (434) 243-3399 075 Gilmer Hall   www.CoxLabUVA.org   www.EvolutionEd.org www.EEBvirginia.org   rmc3u@virginia.edu

UWarsaw GreatTitsPopGenomics

Wild Urban Evolution & Ecology Lab, Centre of New Technologies, University of Warsaw, Poland

Post-doctoral position in Urban Ecological Genomics

We seek a *post-doctoral *research fellow in population / ecological genomics to work in the Wild Urban Evolution & Ecology Lab (http://leem.cent.uw.edu.pl) led by Marta Szulkin at the Centre of New Technologies (CeNT), University of Warsaw (Poland) for a period of *1 year*. The position is part of a 5 year grant awarded by the Polish Science Foundation (NCN) entitled: /'Ecological genetics of the great tit in a new, long-term population study set along an urbanization gradient'/, which started in October 2015. CeNT is a vibrant research-only institute located on the science campus of the University of Warsaw. English is the working language of the group.

*Background.*Urban areas are predicted to expand 12-fold between 2000 and 2050, yet knowledge on the evolutionary ecology of free-living animals in urban environments is very scarce. To understand the footprint of cities on the phenotype and genotype of a wild bird, we have (i) started a large-scale, long-term study of great tits /Parus major/ and blue tits /Cyanistes caeruleus/ in the city of Warsaw (Poland) in a gradient of urbanization, and (ii) performed replicated sampling across multiple habitats and multiple cities countrywide.

*Job description.*The post-doctoral fellow will analyse NGS data and apply genomic analytical pipelines to infer the ecological and population genomics of urban great tits on readily collected blood samples and recently extracted DNA. S/he will also participate in fieldwork and in collecting phenotypic and genetic data, and have flexibility to develop his/her own ideas and approaches to the overall research theme, with possibilities for further grant applications. S/he will work in interaction with the PI and all team members, as well as with collaborators with other urban evolutionary ecology research groups worldwide.

*Job requirements:*We seek motivated candidates with a PhD degree, fluent English and a strong interest in population genetics. The candidate should have a back-ground in evolutionary ecology, statistical modelling in R, RADseq and / or population genomic data analysis. Unix / Linux programming skills, lab experience and / or bird ringing experience are desirable. Employment: Post-doctoral full time position (asystent / adiunkt naukowy). The position will allow for a refinement of urban population genomic research and has the potential for further research grant applications. *Salary:* 6250 PLN gross/month + 1 extra month bonus.

*How to apply. *Your application should include in PDF format: a cover letter, a CV (including your research experience, conference attendance, a publication list and contact information to two referees) and a scan of your PhD certificate. Please send your applications to marta.szulkin@cent.uw.edu.plwith the term 'Postdoc position' as email subject line. Top candidates will be invited for live interviews or via Skype. Start date: 1st of January-1st of March 2019. *Application deadline: 30/11/2018***

– Dr hab. Marta Szulkin, Prof. UW Wild Urban Evolution and Ecology Lab Centre of New Technologies, University of Warsaw Banacha 2C, 02-097 Warsaw, Poland tel: +48 22 554 37 06 http://leem.cent.uw.edu.pl Marta Szulkin <marta.szulkin@cent.uw.edu.pl>

UWinnipeg EvolutionaryGenetics

Postdoctoral Position in Evolutionary Genetics

A postdoctoral position is available in Dr. Alberto Civetta's research group in Biology at the University of Winnipeg, Winnipeg, Canada. Our laboratory is interested in the genetic basis of reproductive incompatibilities. We are currently engaged in testing the role of a group of genes we previously identified as candidates in hybrid male sterility (HMS), uncovering gene interactions and pathways contributing to HMS, understanding the mechanistic basis and phenotypic expression of incompatibilities that cause isolation, and identifying common genetic basis to sperm competition and conspecific sperm precedence.

Ideally, the candidate should have expertise in Drosophila biology and either training in molecular biology, particularly vector engineering, the development of tissue/cell assays and/or genomics and bioinformatics.

The candidate will be part of a team of undergraduate and graduate students. There will also be opportunities to interact with a collaborator and her stu-

dents/postdocs at the UofW. Working on this project will require independence, initiative, and the ability to devise new approaches. There will be excellent opportunities to interact with graduate students and particularly to get direct experience in helping supervise undergraduate students' research projects. The position is available for one year, but renewable for at least an additional year depending on performance and progress.

The start date is flexible but should ideally start no later than September 2019.

The University of Winnipeg, (http://-www.uwinnipeg.ca/) is located in downtown Winnipeg. Winnipeg is home to about 700,000 people from around the world with a rich array of cultural, educational and recreational opportunities. Reasonable housing costs make Winnipeg an affordable place to live and work.

Informal enquiries are welcomed. Applicants should email a cover letter and CV (including contact details for two referees) to a.civetta@uwinnipeg.ca

Applications will be accepted until January 10, 2019, or until a suitable candidate is identified.

Alberto Civetta <a.civetta@uwinnipeg.ca>

UWisconsin Milwaukee EvolutionPlantsAlgae

The Department of Biological Sciences at the University of Wisconsin-Milwaukee (UWM) is currently accepting application submissions for a postdoctoral appointment in Dr. Filipe Albertos laboratory.

Our team research interests revolve around understanding the microevolutionary processes shaping the spatial genetic structure of marine plants and algae. Through collaboration with other researchers, we like complementing classical ecological research with molecular ecology, often by studying model species that constitute the foundation of important marine ecosystems,

like large brown algae (kelps) and marine angiosperms (seagrasses). We use molecular techniques and statistical modeling to understand organism's reproductive systems; to infer the causes and consequences of variation in allocation to sexual and asexual reproduction; and to interpret genetic connectivity across different levels of spatial organization, from single populations and metapopulations to whole range distributions. Recently, we expanded our topics to applied research by developing a genomic selection program in seaweed aquaculture. We are looking to hire a postdoctoral research that would contribute to our goals with genomic analysis expertise.

The ideal candidate should have experience in population genomics lab techniques and bioinformatic analysis.

Applicants are required to have a PhD in evolutionary ecology, plant breeding, population genetics/genomics or genetics. Familiarity with population genetics/genomics software is essential, as well as high level of motivation to produce and write her or his results. Computer programming skills are also important merits.

Informal inquiries about the project are encouraged. Please apply by sending a single pdf document including 1) CV, 2) a declaration of research interests, 3) previous experience and fit for the position and 4) the email address and telephone number of potential contacts for reference letters.

Applications should be emailed to Dr. Filipe Alberto, albertof(at)uwm.edu. The initial contract will be for one year with possible extension to 2.5 years. Benefits information can be found at http://www.wisconsin.edu/-hr/benefits/gradben.pdf . Review of applications starts on December 15, 2018, and will continue until the position is filled. The position is expected to start in January 2019.

UWM is an AA/EEO employer.

For more information about the lab see http://alberto-lab.blogspot.com/ . UWM has an active group of researchers studying evolutionary ecology and behavior:

https://uwm.edu/biology/research/ecology-evolution-and-behavior/ Filipe Aos Alberto <albertof@uwm.edu>

WorkshopsCourses

Austria SMBEPolygenicAdaptation Feb11-14

** DEADLINE FOR SUBMISSION OF ABSTRACTS EXTENDED UNTIL NOV 15 **

We are delighted to announce that we will have a SMBE satellite meeting 'Towards an integrated concept of adaptation: uniting molecular population genetics and quantitative genetics' 11-14 February 2019 in Vienna, Austria.

This workshop will bring together theoreticians and empiricists, covering both molecular population genetics and quantitative genetics, with the implicit goal to develop the basis for a unified framework of adaptive genetic architectures. The new concept will in turn provide predictions that translate into guidelines for the most informative experimental designs, to uncover underlying adaptive processes.

We will have talks by invited speakers from both theoretical and empirical fields (Drosophila, yeast, Arabidopsis, human, sticklebacks, domestic animals). We will also have discussions in working groups on development of the new unified concept of adaptive traits and finding new analytical approaches.

Registration: Since the meeting is sponsored by SMBE and Vetmeduni Vienna, we can waive the registration fee for all participants. However, registration is compulsory. Registration deadline: Dec 31, 2018. Note: Please provide your first and last name, affiliation and status (MS/PhD student, postdoc, PI).

Abstract Submission: For contributed talks, submit your 250-words abstract by NOV 15, 2018. The deadline for submission of 250-words abstracts for posters is Dec 31, 2018. Submit your abstract to smbe.adapt19@gmail.com Note: Please provide your first and last name, affiliation and status (MS/PhD student, postdoc, PI).

Please visit https://www.vetmeduni.ac.at/SMBE-Satellite-Meeting/ for more information. If you have any questions, please email smbe.adapt.2019@gmail.com

Neda Barghi (barghi.neda@gmail.com) On behalf of the organization committee:

Christian Schlã Â(schlotc@gmail.com) Joachim Hermisson (joachim.hermisson@univie.ac.at) lse Hã Â(ilse.hoellinger@gmail.com)

Neda Barghi <barghi.neda@gmail.com>

Barcelona EvolutionaryQuantitative Apr8-12

Dear Colleagues,

Registration is open for Transmitting Science course ^{o}Introduction to Evolutionary Quantitative Genetics±

Instructors: Dr. Erik Postma (University of Exeter, UK) and Dr. Jes^{2}s Martnez-Padilla (Universidad de

Oviedo, Spain).

Dates: April 8th-12th, 2019, Barcelona (Spain)

Place: Capellades, Barcelona (Spain).

Course Overview:

Quantitative genetics uses the phenotypic resemblance among related individuals to infer the role of genes and the environment in shaping phenotypic variation.

By simultaneously using the resemblance among all individuals in the pedigree, these methods provide more precise and accurate estimates of genetic and non-genetic variance components (heritabilities and genetic correlations). Furthermore, they allow for the estimation of individual-level genetic effects (breeding values), and thereby the inference of evolution.

In this course, we will cover everything from basic quantitative genetic theory and statistics to advanced mixed model-based approaches. You will learn how to estimate genetic variances and covariances in wild and captive populations, and how to test for evolutionary change.

Along the way, you will be exposed to the main software packages, and the R packages MCMCglmm and ASReml-R in particular, and you will learn about their strengths and weaknesses.

You are strongly encouraged to bring your own data (if you have it), which you will be able to work on during the course and which will allow you to put the theory into practice.

More information: http://www.transmittingscience.org/courses/genetics-and-genomics/introduction-evolutionary-quantitative-genetics/ or writing to courses@transmittingscience.org

With best regards

Sole

Soledad De Esteban-Trivigno, PhD Scientific Director Transmitting Science www.transmittingscience.org soledad.esteban@transmittingscience.org

Berlin BayesianStatisticsUsingStan Mar25-29

Dear all,

application is now open for our course "An introduction to computational Bayesian methods using Stan" :

(https://www.physalia-courses.org/courses-workshops/course46/)

Where: Berlin

When: 25-29 March 2019

Instructor: Dr. Shravan Vasishth (Professor at the University of Potsdam, Germany)

After completing this course, the participant will have become familiar with the foundations of Bayesian inference using Stan (RStan and brms), and will be able to fit a range of multiple regression models and hierarchical models, for normally distributed data, and for log-normal, poisson, multinomial, and binomially distributed data. They will know how to calibrate their models using prior and posterior predictive checks; they will be able to establish true and false discovery rates to validate discovery claims, and to carry out model comparison using cross-validation methods, and Bayes factors

Website: (https://www.physalia-courses.org/courses-workshops/course46/)

Should you have any questions, please feel free to contact us at : info@physalia-courses.org

Best regards, Carlo

Carlo Pecoraro, Ph.D

Physalia-courses DIRECTOR

info@physalia-courses.org

(http://www.physalia-courses.org/)

Twitter: @physacourses

mobile: +49 17645230846

(https://groups.google.com/forum/#!forum/physalia-courses)

"info@physalia-courses.org"   <info@physalia-courses.org>

website: https://www.physalia-courses.org/courses-workshops/course20/ Here is the full list of our courses and Workshops: https://www.physalia-courses.org/courses-workshops/ Best regards,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR info@physalia-courses.org http://www.physalia-courses.org/ Twitter: @physacourses mobile: +49 17645230846 https://groups.google.com/forum/#!forum/physalia-courses info@physalia-courses.org

Berlin GenomeAssemblyAnnotation Feb11-15

Course: "Assembly and Annotation of genomes"

When: 11th to the 15th of February 2019

Where: BGBM/Free Uuniversity in Berlin (Germany)

Application deadline is: January 10th, 2019.

Instructor: Dr. Thomas D. Otto (University of Glasgow, UK; https://www.physalia-courses.org/instructors/t28/)

Assistant instructor: Mr. Maximilian Driller (Begendiv, Germany; http://bit.ly/2zcwmQT)

Overview

This course will introduce biologists and bioinformaticians to the concepts of de novo assembly and annotation. Different technologies, from Illumina, PacBio, Oxford Nanopoor and maybe 10X will be used mixed with different approaches like correction, HiC scaffolding to generate good draft assemblies. Particular attention will be given to the quality control of the assemblies and to the understanding how errors occur. Further, annotation tools using RNA-Seq data will be introduced. An outlook of potential analysis is given. In the end of the course the students should be able to understand what is needed to generate a good annotated genome.

Targeted Audience & Assumed Background

The course is aimed at researchers interested in learning more about genome assembly and annotation. It will include information useful for both the beginner and the more advanced user. We will start by introducing general concepts and then continue to step-by-step describe all major components of a genome assembly and annotation workflow, from raw data all the way to a final assembled and annotated genome. There will be a mix of lectures and hands-on practical exercises using command line Linux.

Attendees should have a background in biology. We will dedicate one session to some basic and advanced Linux concepts. Attendees should have also some familiarity with genomic data such as that arising from NGS sequencers.

Session content: https://www.physalia-courses.org/courses-workshops/course20/curriculum-20/ For more information about the course, please visit our

Berlin GenomicDataVisualizationInR Apr8-12

Dear all,

applications are now open for the 2nd edition of our Workshop "Genomic Data Visualization and Interpretation" in Berlin: (https://www.physalia-courses.org/courses-workshops/course14/)

Where: BGBM/FU University

When: 8-12 April 2019

Instructors: Drs. Obi and Malachi Griffith (Washington University School of Medicine, USA)

Course Website: https://www.physalia-courses.org/courses-workshops/course14/ In this workshop we will explore a number of best-in-class visualization tools, and provide working examples that demonstrate important principles of omic interpretation strategies. The workshop will be delivered over the course of five days. Each day will include an introductory lecture with class discussion of key concepts. The remainder of each day will consist of practical hands-on sessions. These sessions will involve a combination of both mirroring exercises with the instructor to demonstrate a skill as well as applying these skills on your own to complete individual exercises. After and during each exercise, interpretation of results will be discussed as a group. Computing will be done using a combination of tools installed on the attendees laptop computer and web resources accessed via web browser.

Who should attend

This workshop is aimed at researchers and technical workers who are analyzing some kind of omic data (e.g. WGS, exome, RNA-seq, variant files, etc.). Examples

demonstrated in this course will involve primarily human genome/transcriptome data but many of the concepts learned will be applicable to model organisms, metagenomics, simulated data, etc.

Session content: (https://www.physalia-courses.org/courses-workshops/course14/curriculum-14/)

Should you have any questions, please do not hesitate to contact us at: (mailto:info@physalia-courses.org)

Best regards, Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR info@physalia-courses.org   http://www.physalia-courses.org/ Twitter: @physacourses mobile: +49 17645230846   https://groups.google.com/forum/-#!forum/physalia-courses "info@physalia-courses.org" <info@physalia-courses.org>

Berlin Phylogenomics May20-24

Dear all, we would like to inform you that the registration is now open for the 2nd edition of our Workshop on Phylogenomics: https://www.physalia-courses.org/courses-workshops/course21/ Where: BGBM/FU University Berlin (Germany)

When:20-24 May 2019

Instructor: Dr. Michael Matschiner (University of Basel (Switzerland))

Overview: In this workshop Michael will present theory and exercises to infer time-calibrated phylogenies from multi-locus, RADseq, and whole-genome data sets while accounting for these confounding factors.

Who Should Attend: This workshop is aimed at researchers, PhD or postdoc level planning to infer phylogenetic relationships and divergence times from multilocus, RADseq, or whole-genome data.

Requirements: Attendents should have basic knowledge of UNIX and will need to use the command line on their laptops. Familiarity with a scripting language such as Ruby, Python, or Perl will be helpful but is not required.

Course website: https://www.physalia-courses.org/courses-workshops/course21/ Full list of our courses and Workshops: https://www.physalia-courses.org/courses-workshops/ Should you have any questions, please feel free to contact us at: info@physalia-courses.org

Best regards, Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR info@physalia-courses.org   http://www.physalia-courses.org/ Twitter: @physacourses mobile: +49 17645230846   https://groups.google.com/forum/-#!forum/physalia-courses "info@physalia-courses.org" <info@physalia-courses.org>

Berlin PythonDataVisualization 10-14Dec LastCall

Dear all, we just wanted to inform you that the registration deadline for the course "Data Manipulation and Visualization with Python" is soon approaching (21st November) and we have the last 3 places left.

As always, attendees are seated on a first-come, first-served basis.

When: 10th-14th December 2018

Where: BGBM/FU University Berlin

Instructors: Dr. Martin Jones (founder, Python for biologists)

Course website: https://www.physalia-courses.org/courses-workshops/course38 This course is aimed at researchers and technical workers with a background in biology and a basic knowledge of Python (if you've taken the Introductory Python course then you have the Python knowledge; if you're not sure whether you know enough Python to benefit from this course then just drop us an email).

Students should have enough biological/bioinformatics background to appreciate the example datasets. They should also have some basic Python experience (the Introduction to Python course will fulfill these requirements). Students should be familiar with the use of lists, loops, functions and conditions in Python and have written at least a few small programs from scratch. Students will require the scientific Python stack to be installed on their laptops before attending; instructions for this will be sent out prior to the course.

Detailed syllabus: https://www.physalia-courses.org/courses-workshops/course38/curriculum-38/ Should you have any questions, please feel free to contact us at: info@physalia-courses.org

The full list of our courses and Workshops: https://-www.physalia-courses.org/courses-workshops/ Best regards,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR info@physalia-courses.org   http://www.physalia-courses.org/ Twitter: @physacourses mobile: +49 17645230846   https://groups.google.com/forum/-#!forum/physalia-courses "info@physalia-courses.org" <info@physalia-courses.org>

Hinxton UK ComputationalMolecularEvolution Feb14

Dear All,

The Wellcome Advanced Workshop on Computational Molecular Evolution runs on 13 - 24 May 2019, at the Wellcome Genome Campus, Hinxton, UK. Application is now open, with the deadline at 14 February 2019.   For further details, please visit the following web site: https://-coursesandconferences.wellcomegenomecampus.org/-our-events/computational-molecular-evolution-2019/ thanks and best wishes,

ziheng yang

"Yang, Ziheng" <z.yang@ucl.ac.uk>

Itasca MidwestPhylo Jun3-9

We are pleased to announce that a new phylogenetics workshop is now accepting student applications:

Midwest workshop in phylogenetic comparative methods 3-9 June 2019 Itasca Biological Station

https://phylosdd.github.io/MidwestPhylo2019/   The general scope of this workshop is learning about macroevolution by analyzing phylogenetic trees. We will emphasize probabilistic models, including intuition for how they work and how their processes leave signal in phylogenetic data. Our goal as teachers is that you will learn about the logic of phylogenetic comparative methods. We also hope to build connections among researchers in the Midwest US.

Instructors: * Cécile Ané, Univ Wisconsin, Madison

* Heath Blackmon, Texas A&M Univ * Emma Goldberg, Univ Minnesota, Twin Cities * Amanda Grusz, Univ Minnesota, Duluth * Tracy Heath, Iowa State Univ * Mark Holder, Univ Kansas * Boris IgiÄ, Univ Illinois, Chicago * Dan Rabosky, Univ Michigan * Rick Ree, Field Museum * Graham Slater, Univ Chicago * Rosana Zenil-Ferguson, Univ Hawaii, Manoa

Please see the workshop website for more information on course content, logistics, and how to apply. https://-phylosdd.github.io/MidwestPhylo2019/   eeg@umn.edu

MNHN Paris IntegrativeTaxonomy Mar18-22

The course "Integrative taxonomy in the "big data" era" will be from the 18th to the 22th of March, 2019 at the MNHN of Paris, France.

This course is also part of the DEST- Taxonomy training program (http://www.taxonomytraining.eu/).

The course is in English. To register, please fill the form on the website of the course (https://sites.google.com/-site/coursbarcode/inscription-1) before the 7th of January, 2019.

If you have any question, please contact: Line Le Gall (legall@mnhn.fr) Nicolas Puillandre (puillandre@mnhn.fr) Sarah Samadi (sarah@mnhn.fr)

Nicolas PUILLANDRE <nicolas.puillandre@mnhn.fr>

Portugal Evolution Dec

Subject: Portugal-cE3c-Course: four advanced courses with deadlines December 2018

cE3c V Centre for Ecology, Evolution and Environmental Changes is organizing several Advanced Courses: see below the four courses with closer deadlines V December 2018

Additional informations at:

http://ce3c.ciencias.ulisboa.pt/training/?cat   Course Hands on Functional Diversity: from Ecological Indicators to Ecosystem Services < http://-ce3c.ciencias.ulisboa.pt/training/ver.php?id9 >

organized by Paula Matos, Alice Nunes, Laura Concostrina-Zubiri, et al. | January 14-18 2019 @ Lisbon, Portugal

Objectives: Under the general framework of Global Change Ecology, the goal of this five days intensive course is to provide the participants with the most recent and practical knowledge on the use of Functional Diversity. This includes the selection of functional traits and calculation of Functional Diversity Indexes. Examples of the application of this knowledge will be given regarding Ecological Indicators and Ecosystem Services.

See the PROGRAMME at:

http://ce3c.ciencias.ulisboa.pt/training/?cat   Course INSTRUCTOR (among others)

Paula Matos

(http://ce3c.ciencias.ulisboa.pt/member/paula-sofia-antunes-matos)

cE3c Post-Doc Researcher

Intended audience

This course will be open to a maximum number of 20 participants, being directed to MSc or PhD students in Biology, Environmental Sciences, Ecology or related areas, postdocs and professionals working in related topics.

Minimum formation: Bachelor in Biology, Natural Science or related areas

The course is free for a maximum of 10 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 14th 2018

Candidates should send a short CV and motivation letter explaining why they are interested in the course to Paula Matos (psmatos@fc.ul.pt).

For additional details about the course click here:

http://ce3c.ciencias.ulisboa.pt/training/?cat   Course Island Biogeography < http://ce3c.ciencias.ulisboa.pt/training/ver.php?id1 >

organized by Ana Margarida Santos et al. | January 21-24, 2019 @ Lisbon, Portugal

Objectives: This four days intensive course introduces the field of island biogeography, a discipline that has long influenced other research areas such as macroecology, community ecology, evolution and conservation biology. This course covers the main aspects of island

biogeography, and on completion of the course the students shall have acquired knowledge and understanding on:

1) Ecological/evolutionary theories developed from studies on islands, and its applications in other research areas.

2) Processes that occur during and after island colonization, that shape island communities.

3) Island evolutionary processes.

4) Applications of island biogeography to conservation biology

See the PROGRAMME at:

http://ce3c.ciencias.ulisboa.pt/training/?cat   Course INSTRUCTOR (coordinator): Ana M.C. Santos http://ce3c.ciencias.ulisboa.pt/member/anamcsantos)

Researcher at cE3c

Intended audience

This course will be open to a maximum number of 20 participants, being directed to PhD and master students as well as post-docs and professionals with a bachelor in Biology, Geography or related areas.

Minimum formation: Bachelor in Biology, Geography or related areas.

The course is free for a maximum of 10 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 14, 2018

Candidates should send a short CV and motivation letter to Ana Margarida Santos (ana.margarida.c.santos@googlemail.com).

For additional details about the course click here:

http://ce3c.ciencias.ulisboa.pt/training/?cat   Course Soil ecology and ecosystem services < http://ce3c.ciencias.ulisboa.pt/training/ver.php?id@ >

organized by Teresa Dias and Cristina Cruz | January 28-February 1 2019 @ Lisbon, Portugal

Objectives: This five days intensive course aims at introducing

— / —

Portugal NicheModelling Feb11-15

Ecological niche models (ENM), and/or species distribution models (SDM), are a series of computer algorithms designed to predict the distribution of species in geographic space based on a mathematical representation of their distribution in the environmental space. These state of the art tools are frequently used in different biological disciplines such as ecology, biogeography, evolutionary biology or conservation. The aims of this course are to provide (1) an overview of the theoretical aspects, applications and techniques of ENM, and (2) a series of practical cases exemplifying relevant scientific uses of ENM.

Click < https://cibio.up.pt/workshops–courses/details/-ecological-niche-modelling-from-theory-to-practice-2018 > here to see the programme for the course.

COURSE INSTRUCTORS

< https://cibio.up.pt/people/details/fmfreiria > Fernando MartÃÂ'nez-FreirÃÂ'a, BIODESERTS, CIBIO-InBIO

< https://cibio.up.pt/people/details/jpgomes > Pedro Tarroso, BIODESERTS, CIBIO-InBIO

<http://www.uevora.pt/pessoas/(id)/29524> A. Marcia Barbosa, Universidade de ÃÂvora, Portugal

INTENDED AUDIENCE The course will be open to a maximum number of 20 participants.

75% of available student slots are reserved for BIODIV students. Priority will be given to:

§1st year and other PhD students attending the BIODIV Doctoral Program;

§PhD students attending other courses;

§Other post-graduate students and researchers.

REGISTRATION Registration deadline: December 13, 2018

To apply, please fill the form available < https://docs.google.com/forms/d/e/-1FAIpQLSfL20wLjmOGZIT24fvmxALaM3Ks7OifR8tJ35hRD13szCg-Fg/viewform?usp=pp_url > HERE

Participation is free of charge for BIODIV students | 95 âÂÂ¬(students)—200âÂÂ¬(otherparticipants).CIBIO−
InBIOmemberswillhaveanadditionaldiscountof20%.AllapplicantswillbenotifiedaboutwhethertheyareaccepteduntilDecembe

< https://cibio.up.pt/upload/filemanager/-rulesadvancedcourses.pdf > Please note that new rules apply for all BIODIV students.

For more information about the course, please contact: post.graduation@cibio.up.pt.

CIBIO - Centro de InvestigaÃÂem Biodiversidade e Recursos Geneticos

InBIO Laboratorio Associado, Universidade do Porto

Campus de Vairao

Rua Padre Armando Quintas

4485-661 Vairao

Portugal

t: +351 252 660 400

e: divulgacao@cibio.up.pt w: < http://cibio.up.pt/ > http://cibio.up.pt | http://inbio-la.pt

f: https://www.facebook.com/cibio.inbio

CIBIO-InBIO DivulgaÃÂ

ThunderBay Ontario PaleoDNALab Apr-Jun

Practical DNA Training Program:

A two-week (9 business days) intensive laboratory-based training program designed to teach participants the fundamentals of molecular techniques including DNA extraction, amplification (using PCR), sequencing and interpretation.

This training program is offered at various times throughout the year and we will work with you to find a suitable time for training.

The next scheduled times for the Practical DNA Training Program are: April 23 - May 3, 2019, May 7 - 17, 2019, May 27 - June 6, 2019, June 17 - 27, 2019

For more information please contact us at 807-343-8877 or email paleodna@lakeheadu.ca or visit our website at www.ancientdna.com and click on 'Training Programs'.

Thank you.

Karen Maa Administrative Assistant Paleo-DNA Laboratory 1294 Balmoral Street, 3rd Floor Thunder Bay, ON P7B 5Z5

Telephone: 1-866-DNA-LABS

Karen Maa <kmaa@lakeheadu.ca>

UHuddersfield Leeds BiolComputingSkills

Hello,

This is a reminder that the application deadline to our workshops is next week, on Monday November 19th. Apply away and see you on the workshop!

Best wishes, The organisers

Next Generation Biologists: Essential Computing Skills for Molecular Biology (http://nextgenbiologists.org) is a BBSRC-STARs programme-funded project to introduce and train researchers in the skills and best practices in scientific computing and bioinformatics. The format of the materials and the nature of the delivery is based on the successful "Software Carpentry Â Â± (http://-software-carpentry.org/) blended-learning model, where students learn by developing skills through hands-on, live coding and peer programming sessions led by experienced Software Carpentry instructors and supported by a small team of helpers.

This is the joint announcement of the fifth and sixth workshops in the series, *the last two workshops in the programme addressed to users who begin their adventure with computational biology*.

The 5th workshop will take place at the University of Huddersfield on the 12-14th December (Wed-Fri).

The 6th workshop will take place at the University of Leeds on the 16-18th January (Wed-Fri).

AUDIENCE The workshops are aimed at researchers with little or no experience in programming and data analysis, who nevertheless need these approaches in their research in the life sciences.

ORGANISERS AND INSTRUCTORS The main organisers of the workshops are Dr Mary J. O Â ÂConnell (@Evol_Molly), Dr Martin Callaghan (both at the University of Leeds) and Dr Jarek Bryk (@jarekbryk at the University of Huddersfield). The project is a joint initiative of the University of Leeds and the University of Huddersfield. The instructors include Martin Callaghan, Jarek Bryk and Dr Alastair Droop (also from the University of Leeds).

PRELIMINARY PROGRAMME Wednesday Introduction to the fundamentals of UNIX, command-line inter-face and shell.

Thursday Introduction to fundamentals of R with R Studio, including data and analysis reproducibility, concluded with example analysis of high-throughput data.

Friday A Â Â°hackathon Â Â± day, during which participants will use skills learned in earlier days to solve a real-life data analysis problem of their choosing or a walk-through of an analysis of a real-life dataset using learned skills in shell and R.

DATE The 5th workshop: 12-14th December 2018 (Wed-Fri). The 6th workshop: 16-18th January 2019 (Wed-Fri).

VENUE The 5th workshop: University of Huddersfield, UK. The 6th workshop: University of Leeds, UK.

COSTS The workshops are free of charge for all BBSRC-funded researchers, as well as staff and students from the Universities of Leeds and Huddersfield. For all other participants a course fee of pounds 170 will apply that will need to be paid before the workshop begins. Travel and accommodation costs are *not* covered by the organisers.

HOW TO APPLY To apply for a place on the workshop, prepare a 200 words' summary of your curriculum vitae and a 200 word statement detailing why this course if of particular importance to your research. Submit your information via the registration form at https://goo.gl/-forms/z16csEo1RcPUysZa2 by Monday 19th November 2018 (the same deadline for both workshops). The selection committee will notify successful applicants by the end of 21st of November. The workshops are limited to 25 participants, who are expected to bring their own computers on the workshop.

More details about the project and the workshop are available on our website at http://nextgenbiologists.org. We are also on Twitter at @nextgenbiol (the "l" is important :-).

See you on the workshop! The organisers University of Huddersfield inspiring tomorrow's professionals. [http://-/marketing.hud.ac.uk/_HOSTED/EmailSig2014/-EmailSigFooter.jpg] Jarek Bryk <J.Bryk@hud.ac.uk>

UK AdvancingInR Jan21-25

Advancing in statistical modelling for evolutionary biologists and ecologists using R (ADVR08)

https://www.prstatistics.com/course/advancing-statistical-modelling-using-r-advr08/ This course will be delivered by Dr. Luc Bussiere from the 21st 25th January 2019 in Glasgow City Centre Course Overview: This course will provide an introduction to working with real-life data typical of those encountered in the field of evolutionary biology and ecology. The course will be delivered by Dr. Luc Bussiere, Dr. Tom Houslay and Dr. Ane Timenes Laugen who are all practicing academics in the field of evolutionary biology. This five day course will consist of series of modules (each lasting roughly half a day) covering model selection and simplification, generalised linear models, mixed effects models, and non-linear models. Along the way you will gain in depth experience in data Âwrangling', data and model visualisation and plotting, as well as exploring and understanding model diagnostics. Classes will comprises of a mixture of lectures and practicals designed to either build required skills for future modules or to perform a family of analyses that is frequently encountered in the biological literature. Course programme Monday 21st ' Classes from 09:30 to 17:30 Course introduction; techniques for data manipulation, aggregation, and visualisation; introduction to linear regression. Packages: {tidyr}, {dplyr}, {ggplot2} Tuesday 22nd ' Classes from 09:30 to 17:30 Linear models (diagnostics, collinearity, scaling, plotting fitted values); fitting and interpreting interaction terms; model selection and simplification; general linear models and ANCOVA. Packages: {stats}, {car} Wednesday 23rd ' Classes from 09:30 to 17:30 Generalized linear models (logistic and Poisson regression); predicting using model objects and visualizing model fits. Packages: {broom}, {visreg}, {ggplot2} Thursday 24th ' Classes from 09:30 to 17:30 Mixed effects models in theory and practice; visualising fixed and random effects. Packages: {lme4}, {broom}, {ggplot2}, {sjPlot} Friday 25th ' Classes from 09:30 to 16:00 Fitting nonlinear functions (polynomial & mechanistic models); brief introduction to more advanced topics & combining methods (e.g., generalised linear mixed effects, nonlinear mixed effects, and zero-inflated and zero-altered models). Packages: {nlsTools} Email oliverhooker@prstatistics.com Check out our sister sites,www.PRstatistics.com (Ecology

and Life Sciences) www.PRinformatics.com (Bioinformatics and data science)www.PSstatistics.com (Behaviour and cognition) 1. November 26th ' 30th 2018FUNCTIONAL ECOLOGY FROM ORGANISM TO ECOSYSTEM: THEORY AND COMPUTATION (FEER01)Glasgow, Scotland, Dr. Francesco de Bello, Dr. Lars GÃÂ, Dr. Carlos Carmona http://www.prstatistics.com/course/functional-ecology-from-organism-to-ecosystem-theory-and-computation-feer01/ 2. December 3rd ' 7th 2018INTRODUCTION TO BAYESIAN DATA ANALYSIS FOR SOCIAL AND BEHAVIOURAL SCIENCES USING R AND STAN (BDRS01)Glasgow, Dr. Mark Andrews https://www.psstatistics.com/course/introduction-to-bayesian-data-analysis-for-social-and-behavioural-sciences-using-r-and-stan-bdrs01/ 3. January 21st ' 25th 2019STATISTICAL MODELLING OF TIME-TO-EVENT DATA USING SURVIVAL ANALYSIS: AN INTRODUCTION FOR ANIMAL BEHAVIOURISTS, ECOLOGISTS AND EVOLUTIONARY BIOLOGISTS (TTED01)Glasgow, Scotland, Dr. Will Hoppitt https://www.psstatistics.com/course/statistical-modelling-of-time-to-event-data-using-survival-analysis-tted01/ 4. January 21st ' 25th 2019ADVANCING IN STATISTICAL MODELLING USING R (ADVR08)Glasgow, Scotland, Dr. Luc Bussiere, Dr. Tom Houslay http://www.prstatistics.com/course/advancing-statistical-modelling-using-r-advr08/ 5. January 28th' February 1st 2019AQUATIC ACOUSTIC TELEMETRY DATA ANALYSIS AND SURVEY DESIGNGlasgow, Scotland, VEMCO staff and affiliates https://www.prstatistics.com/course/aquatic-acoustic-telemetry-data-analysis-atda01/ 6. February 4th ' 8th 2019DESIGNING RELIABLE AND EFFICIENT EXPERIMENTS FOR SOCIAL SCIENCES (DRES01) Glasgow, Scotland, Dr. Daniel Lakens

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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

UK ComparativeGenomics Apr29-May3

Comparative genomics (CMGN01)

https://www.prinformatics.com/course/comparative-genomics-cmgn01/ PR informatics are excited to

announce their new course "Comparative Genomics" which will be delivered by Dr. Fritz Sedlazeck and Dr. Matthias Weissensteiner in Glasgow city centre from the 29 April - 3rd May 2019

Course Overview:

This course will introduce biologists and bioinformaticians to the field of comparative genomics. The course will give a deeper understanding on the advantages and disadvantages of each of approach in general to enabling an informed decision of study design for the participants for future studies and learn the cutting edge approaches to process state of the art data sets. Different techniques will be introduced to identify single nucleotide polymorphism (SNP) and structural variations (SVs) as well as the annotation of these variations and the assessment for their functional impact.

We will give a broad introduction on how to:

1. Process short and long read data based on multiple NGS data sets including mapping and de novo assembly 2. Detect SNP and Structural Variations using de novo assembly, short or long read mapping 3. Assess the impact of the detected variations 4. Perform population genetic analysis between multiple samples to obtain a deeper insight into these variants.

Furthermore, we will teach on how to install and manage these methods and give an introduction in Cloud computing. This will enable the participants to set up efficient pipelines on their own institutions. The course will conclude with the participants being aware of the state of the art approaches and a deepened knowledge to decide which study design is the optimal for future studies .

Course programme

Monday 29th V Classes from 09:30 to 17:30 Day 1: Intro + Assembly Lecture: Setting up and getting familiar with the system Data types, technology overview De novo assembly Practical: Getting used to the environment Manipulating read data (filtering, trimming, etc.) Short vs. long read assembly Subprocessing: QC, polishing of de novo assemblies

Tuesday 30th V Classes from 09:30 to 17:30 Day 2: Assembly quality + polishing ; RNA-Seq + short read mapping Lecture: How it works behind the scenes Data formats Common methods Practical: Insight in short read mappers Long read mapping SNP calling RNA-Seq expression

Wednesday 1st V Classes from 09:30 to 17.30 Day 3: SNP? + SVs detection (Assembly, Read based, phasing?) Lecture: Structural variation detection Methods to detect SV Current state of the art of technologies.

Practical: Short read based SV calling Long read based SV calling Assembly based SV calling Comparing and filtering SVs Annotation of SVs

Thursday 2nd V Classes from 09:30 to 17:30 Day 4: Larger analysis over multiple data set and assessment of mutations over FST Lecture: Evolutionary genetics of structural variation Study design and sampling schemes Limitations Practical: Downstream analysis: Descriptive (SNP & SV density) PopGen (Fst, genetic diversity) Outlier analysis

Friday 3rd V Classes from 09:30 to 16:00 Day 5: Summary and conclusion Group discussions, final questions and overall summary (own data questions if time permits)

Email oliverhooker@prinformatics.com

Check out our sister sites, www.PRstatistics.com (Ecology and Life Sciences) www.PRinformatics.com (Bioinformatics and data science) www.PSstatistics.com (Behaviour and cognition)

– Oliver Hooker PhD.

PR informatics

2017 publications - Ecosystem size predicts eco-morphological variability in post-glacial diversification. Ecology and Evolution. - The physiological costs of prey switching reinforce foraging specialization. Journal of animal ecology.

prinformatics.com   twitter.com/PRinformatics   facebook.com/prstatistics/

6 Hope Park Crescent Edinburgh EH8 9NA

+44 (0) 7966500340

Oliver Hooker <oliverhooker@prinformatics.com>

UK SurvivalAnalysis Jan21-25

Statistical modelling of time-to-event data using survival analysis: an introduction for animal behaviourists, ecologists and evolutionary biologists (TTED01)

https://www.psstatistics.com/course/statistical-modelling-of-time-to-event-data-using-survival-analysis-tted01/   This course will be delivered by Dr.n Will Hoppitt for the 21st - 25th January 2019 in Glasgow City Centre

Course Overview: Survival analysis is a set of statistical methods initially designed to analyse data giving the

times at which individuals die, and assess the effect that different predictor variables have on the rate of death and is therefore useful for studying population dynamics and patterns of marine mammals. However, its applications are much broader than this: it can be used to analyse any time-to-event data. Ecologists and evolutionary biologists often encounter data of this kind. Often factors influencing survival itself will be of interest. But there are many other cases, e.g. what factors influence the time of first breeding? Or the time taken to reach maturity? Animal behaviourists too will encounter this type of data frequently, e.g. what factors influence the time it takes to learn a novel behaviour pattern? Or the time to respond to a stimulus? etc. And yet the techniques of survival analysis are not generally well known by researchers in these disciplines.

In this course, you will learn how to apply survival analysis models to quantify the effect that predictor variables (continuous or discrete) have on the rate at which events occur, and how to test hypotheses about these effects. We will focus on a flexible modelling technique called the Cox proportional hazards model, which makes minimal assumptions about the underlying probability distributions. You will learn how to fit and interpret these models, how to evaluate its assumptions, and how to extend it to model time dependent variables, random effects, multistate models and competing risks models.

Course Programme Monday 21st ' Classes from 09:30 to 17:30 Module 1: Statistical modelling of rates and times Module 2: Parametric survival models and the Cox model

Tuesday 22nd ' Classes from 09:30 to 17:30 Module 3: Fitting Cox models Module 4: Interpreting Cox Models

Wednesday 23rd ' Classes from 09:30 to 17:30 Module 5: Evaluating the proportional hazard assumption Module 6: Stratified Cox models

Thursday 24th ' Classes from 09:30 to 17:30 Module 7: Time dependent variables Module 8: Frailty Models and Multistate models

Friday 25th ' Classes from 09:30 to 17:30 Module 9: Competing risks models Module 10: Open session

Email oliverhooker@psstatistics.com

Check out our sister sites, www.PRstatistics.com (Ecology and Life Sciences) www.PRinformatics.com (Bioinformatics and data science) www.PSstatistics.com (Behaviour and cognition)

1.   November 5th ' 8th 2018 PHYLOGENETIC COMPARATIVE METHODS FOR STUDYING DIVERSIFICATION AND PHENOTYPIC EVOLU-

TION (PCME01) Glasgow, Scotland, Dr. Antigoni Kaliontzopoulou   https://www.prstatistics.com/-course/phylogenetic-comparative-methods-for-studying-diversification-and-phenotypic-evolution-pcme01/
2.   November 19th ' 23rd 2018 STRUCTUAL EQUATION MODELLING FOR ECOLOGISTS AND EVOLUTIONARY BIOLOGISTS (SEMR02) Glasgow, Scotland, Dr. Jonathan Lefcheck https://-/www.prstatistics.com/course/structural-equation-modelling-for-ecologists-and-evolutionary-biologists-semr02/ 3.   November 26th ' 30th 2018 FUNC-TIONAL ECOLOGY FROM ORGANISM TO ECOSYSTEM: THEORY AND COMPUTATION (FEER01) Glasgow, Scotland, Dr. Francesco de Bello, Dr. Lars Götzenberger, Dr. Carlos Carmona http://www.prstatistics.com/course/functional-ecology-from-organism-to-ecosystem-theory-and-computation-feer01/ 4. December 3rd ' 7th 2018 INTRODUCTION TO BAYESIAN DATA ANALYSIS FOR SOCIAL AND BEHAVIOURAL SCIENCES USING R AND STAN (BDRS01) Glasgow, Dr. Mark Andrews https://www.psstatistics.com/course/introduction-to-bayesian-data-analysis-for-social-and-behavioural-sciences-using-r-and-stan-bdrs01/ 5. January 21st ' 25th 2019 STATISTICAL MODELLING OF TIME-TO-EVENT DATA USING SURVIVAL ANALYSIS: AN

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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

ULeipzig FUBerlin Programming-ForEvolutionaryBiology Mar12-28

Course on Programming for Evolutionary Biology

When: March 12th - March 28th 2019

Location: Berlin, Germany

Application deadline: December 31st 2018

Detailed information about the course content and how to apply: http://evop.bioinf.uni-leipzig.de/ In this intensive 17 days course, students will learn how to survive in a Linux environment, get hands-on experience in two widely used programming languages (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 Free University of Berlin.

– Dr. Katja Nowick Professorin für Humanbiologie

Freie Universität Berlin Institut für Zoologie Königin-Luise-Straße 1-3 14195 Berlin

Phone: +49 30 83863761

Katja Nowick <katja.nowick@fu-berlin.de>

Venice EvoDevoMechanism Aug26-30

*** Venice Summer School 2019 - Mechanism in Development and Evolution ***

Aug 26 - Aug 30, 2019, Centro Culturale Don Orione Artigianelli, Venice, IT

Organisers:

Johannes Jaeger, Complexity Science Hub (CSH), Vienna, AT, jaeger@csh.ac.at Berta Verd, University of Cambridge, UK, bv291@cam.ac.uk James DiFrisco, KU Leuven, BE, james.difrisco@kuleuven.be

Teaching Panel:

Ingo Brigandt, University of Alberta, Calgary, CA Graham Budd, University of Uppsala, SE Virginie Courtier-Orgogozo, Institut Jacques Monod, Paris, FR James DiFrisco, KU Leuven, BE Scott Gilbert, Swarthmore College, USA Veri Ânica Grieneisen, John Innes Centre, Norwich, UK Angela Hay, MPI for Plant Breeding Research, Cologne, DE Johannes Jaeger, Complexity

Science Hub (CSH) Vienna Fred Nijhout, Duke University, USA Mihaela Pavlicev, Cincinnati Children's Hospital, USA James Sharpe, EMBL Barcelona, ES Berta Verd, University of Cambridge, UK Gi Â$\frac{1}{4}$nter Wagner, Yale University, USA

Application will open via EMBO's course website in January 2019. In the meantime, please follow @VeniceEvoDevo on Twitter or sign up at the following link for updates: http://events.embo.org/coming-soon/-index.php?EventIDÂ$\frac{3}{4}$bs19-41 . Course description:

Understanding organismal development and its evolution has been one of the biggest challenges for biology since its earliest beginnings. It is the central aim of developmental biology to elucidate the mechanisms underlying pattern formation and morphogenesis. By extension, evolutionary developmental biology (evo-devo) is also considered a "mechanistic science." But what exactly is meant by "mechanism" in these contexts? What is a developmental mechanism? What is a "mechanism" in developmental evolution? How do these "mechanisms" contribute to evolutionary change? The answer to these fundamental questions is far from clear. And yet, clarity on this foundational conceptual issue is essential for research progress, not only in development and evolution but far beyond, as the nature of the term "mechanism" determines the questions we ask and the explanations that are accepted as valid in disciplines across the life and cognitive sciences.

We have gathered a select group of world-leading empirical investigators and theoreticians from the field of developmental biology and evo-devo together with modelers and philosophers of biology to discuss what "mechanism" means, and what kind of properties the concept should incorporate to guide productive new research and the integration of developmental biology and evolutionary theory. This integration lies at the very heart of modern biology. Its relevance transcends the scope of evo-devo, since an understanding of the mapping from genotype to phenotype through metabolism, physiology, and development is also crucial in other fields, such as the genetic study of complex disease, or organismal behaviour.

This course is mainly aimed at early-stage (PhD or post-doc) empirical and theoretical researchers with a general background and interest in developmental and/or evolutionary biology. More senior investigators are welcome to apply as well. Exceptions can be made for motivated masters students. Participants of previous Venice Summer Schools in Evo-Devo are expressly encouraged to reapply as this course has an entirely different topic. The course will equip participants with the conceptual tools to engage in a productive discussion of the notion

of "mechanism" and to relate this notion to their own research questions and explanations.

Important deadlines:

Application/abstract deadline: Apr 30, 2019 Notification of successful candidates: May 15, 2019 Payment/registration confirmation deadline: Jun 30, 2019

— Dr. Johannes Jaeger Fellow, Centre de Recherches Interdisciplinaires (CRI), Paris Associate Faculty, Complexity Science Hub (CSH) Vienna +43 664 216 02 43

Johannes Jaeger <yoginho@gmail.com>

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 notifcation of the availability of a monthly review pdf file.

To be removed from the EvolDir mailing list please send an email message to Golding@McMaster.CA. Note that 'on vacation', etc, style messages are automatically filtered and should not be transmitted to the list (I hope), but should you wish to avoid the e-mail's your code can be temporarily changed to 000000.

To send messages to the EvolDir direct them to the email evoldir@evol.biology.McMaster.CA. Do not include encoded attachments and do not send it as Word files, as HTML files, as LaTeX files, Excel files, etc. . . . plain old ASCII will work great and can be read by everyone. Add a subject header that contains the correct category "Conference:, Graduate position:, Job:, Other:, Postdoc:, Workshop:" and then the message stands a better chance of being correctly parsed. Note that the colon is mandatory.

The message will be stored until the middle of the night (local time). At a predetermined time, the collected messages will be captured and then processed by programs and filters. If the message is caught by one of the filters (e.g. a subject header is not correctly formated) the message will be send to me at Golding@McMaster.CA and processed later. In either case, please do not expect an instant response.

Afterword

This program is an attempt to automatically process a broad variety of e-mail messages. Most preformating is collapsed to save space. At the current time, many features may be incorrectly handled and some email messages may be positively mauled. Although this is being produced by LaTeX do not try to embed LaTeX or TeX in your message (or other formats) since my program will strip these from the message.