
E v o l D i r

March 1, 2019

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

Foreword

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

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

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



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Asilomar California MolluscEvolution Aug11-16

Dear all,

The *World Congress of Malacology* will take place on August 11-16, 2019 at Asilomar Conference Grounds, Pacific Grove, CA, USA.

The scientific program includes the symposium: *The Evolution of Molluscan Weirdness ' mechanisms and tempos of phenotypic diversity.* The goal of this symposium is to discuss both deep time and shallow time aspects of molluscan morphological disparity. Investigations focused on molluscan body plan evolution, phylogeny, rapid phenotypic changes, and adaptations are absolutely welcomed. In addition, integrative approaches

leading with genomics, fossil record, and morphology are also of great contribution to explore mechanisms and patterns of molluscan evolution.

Reduced registration fees until April 15 and the deadline for abstract submissions is April 30. More information at the conference website: <https://calacademy.org/world-congress-of-malacology-2019> Please spread the word!

Cheers

– M.Sc. Jorge Alves Audino Laboratório de Biologia e Evolução de Mollusca Departamento de Zoologia Instituto de Biociências Universidade de Sao Paulo Rua do Matao, Travessa 14, n. 101 05508-090, Sao Paulo, SP, Brasil

Jorge Alves Audino <jorgeaudino@ib.usp.br>

Bristol Systematics Jun17-19

We would like to invite you to the 10th Biennial Conference of the Systematics Association. The meeting will take place in the vibrant city of Bristol from 17th to 19th June 2019. The keynote speakers include Fredrik Ronquist, Tandy Warnow, and Tom Brooks.

Early bird registration ends in 31 March 2019 and abstracts can be submitted until 26th April. There are especial rates for students and attendants from developing countries, and there is a limited number of student bursaries available.

More information can be found here: <https://systass.org/events-2019/biennial-2019/>. You can also follow the Systematics Association twitter (@SystAssn) for update announcements.

Looking forward to welcoming you in Bristol!

The Systematics Association Biennial Organising Team
jordipaps@gmail.com

CarletonU InfectiousDiseaseEvol Apr4-5

Hi Everyone,

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

Alex Wong <AlexWong@cunet.carleton.ca>

France ComparativeCartilageBiology Jun24-26

Dear Evoldir community, Please find here an invitation to participate in our first Comparative Cartilage Biology meeting, held in Banyuls-sur-mer on the 24-26th June 2019

This conference will take a uniquely broad approach to cartilage biology, combining researchers with expertise in developmental genetics, biomaterials & biomedicine, and evolution of cartilage. To build wider concepts in cartilage biology, we will pay particular attention to work on less studied cartilage types, on evolutionary perspectives of skeletal diversity and on less traditional models for skeletal biology (with particular focus on sharks and rays), and how these can enhance modern medical understandings of cartilage. In bringing together diverse cartilage research, we hope this the meeting will integrate the full community of cartilage biologists, accelerating research innovation, interdisciplinary collaboration and community-building.

More details on <https://ccbconference.wixsite.com/-ccb2019>

Organizers : Mason DEAN (Max Planck Institutue)
Mélanie DEBIAIS-THIBAUD (Université de Montpellier)

– Melanie DEBIAIS-THIBAUD Maître de conférences
Institut des sciences de l'évolution de Montpellier (ISEM)
Université Montpellier - UMR 5554 Place Eugène
Bataillon C.C. 064 34095 Montpellier cedex 05 France

04 67 14 33 75 <http://www.isem.univ-montp2.fr/>
<https://sites.google.com/site/melaniedebiaisthibaud/>

“Quand le citoyen-écologiste prétend poser la question

la plus dérangement en demandant : « Quel monde allons-nous laisser — nos enfants ? », il évite de poser cette autre question, réellement inquiétante : « Àeuro quels enfants allons-nous laisser le monde ? ». Jaime Semprun - L'abÂÂme se repeuple. 1997

melanie.debiais-thibaud@umontpellier.fr

Hinxton MathMolBiol Apr25-26 AbstSubmissionDeadline

Dear All,

This is a reminder that the abstract submission deadline for MASAMB (Workshop on Mathematical and Statistical Aspects of Molecular Biology) 2019 is in one week, on Friday 1st March 2019.

Also, the bursary application deadline is today.

Registration links and other information are available here: <https://www.ebi.ac.uk/about/events/2019/-workshop-mathematical-and-statistical-aspects-molecular-biology>

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 <demaio@ebi.ac.uk>

Lyon MathModelsEvolEcol Jul16-19 AbstSubmission

Dear colleagues,

The next edition of the MMEE (Mathematical Models in Ecology and Evolution) conference will take place in Lyon, July 16 to 19, 2019. Confirmed plenary speakers are: - Florence Débarre Institute of Ecology and Environmental Sciences, Paris, France - Jeremy Draghi Brooklyn College, City University of New-York, New-York, NY, USA - Steven Frank University of California, Irvine, CA, USA - Thomas Hansen University of Oslo, Norway - Thomas Lenormand Centre d'Ecologie Fonctionnelle et Evolutive, Montpellier, France - Joanna Masel University of Arizona, Tucson, AZ, USA - Armita Nourmohammad Max Planck institute of Göttingen,

Germany, and University of Washington at Seattle, USA

Proposals of talks and posters can be submitted until March 15. Detailed instructions can be found here: <https://mmee2019lyon.sciencesconf.org/-resource/page/id/2>, please read carefully before submitting an abstract. Some mini-symposia (listed here: <https://mmee2019lyon.sciencesconf.org/resource-page/id/3>) still accept contributions and it is possible to list one of them as a topic for a talk at submission. Other topics have been defined to facilitate the review process and the grouping into sessions.

The review process will begin shortly after March 15 so that attendees can have time to prepare their visit. We have decided to proceed through blind review (i.e. to mask the authors' names and affiliations during the review process); please try to prevent giving information about the authors in the abstract. Note that parenting researchers are encouraged to apply, as there should be an English-speaking childcare provider on site.

Kind regards,

Etienne Rajon, for the organising committee

RAJON ETIENNE x9002460 <Etienne.Rajon@univ-lyon1.fr>

Manchester SMBE 2019 Jul21-25 CallForAbstracts Symposium InsideAfrica

Manchester.SMBE.2019.Jul21-25.CallForAbstracts.Symposium.InsideAfrica

We are happy to invite people to submit abstracts for our symposium: Inside Africa: Uncovering Patterns of Human Genetic Diversity

More info and registration info here: <http://-smbe2019.org/programme/symposia-overview> Invited speakers Luisa Perreira, Universid ade do Porto, Portugal Etienne Patin, Institute Pasteur, Paris, France

Symposium overview In the last few decades, genetics played an increasingly important role in the inference of human history and our understanding of human evolution. Genetics helped to establish Africa as the birthplace of anatomically modern humans. Moreover, genetic studies provided conclusive information that helped to answer challenging questions, such as the 'Out-of-Africa' migration of modern humans and genetic relationships among diverse linguistic, geograph-

ical and cultural groups. The history of human populations in Africa is complex and includes various demographic events that influenced patterns of genetic variation across the continent. Genetic studies based on mitochondrial-DNA, Y-chromosomes, autosomal markers, whole genomes, and ancient DNA contributed to unraveling the genetic sub-structure of African populations and populations of African descent. Through these studies, it became evident that the African subsistence practices shaped the genomes of African populations and the distribution of current-day Africans. With the increased availability of full genomic data from diverse African populations and prehistoric Africans, the next few years will be an exciting period for human population genetic research in Africa. In this symposium, we aim to assemble findings from the field of genetics that contributed to reveal population history and patterns of genetic diversity and adaptation in Africa.

Organisers Carina Schlebusch, Uppsala University, carina.schlebusch@ebc.uu.se Hiba Babiker, Max Planck Institute for the Science of Human History, babiker@shh.mpg.de

E-mailing Uppsala University means that we will process your personal data. For more information on how this is performed, please read here: <http://www.uu.se/en/about-uu/data-protection-policy> Carina Schlebusch <carina.schlebusch@ebc.uu.se>

Manchester SMBE Jul21-25 Call Abstracts And Awards

SMBE 2019, 21-25 July 2019, Manchester, UK V Call for Abstracts and Awards

Society for Molecular Biology & Evolution
smbe@allenpress.com

Dear SMBE Members,

We are delighted to announce that abstracts are now being accepted for SMBE 2019, here (<https://t.e2ma.net/click/hp23v/9yk2r1/lwm37f>). The deadline for abstracts is midnight GMT on Sunday 17 March 2019. Please be aware that the deadline will not be extended. Abstracts should be no longer than 2500 characters (~250 words), with a title no longer than 300 characters.

SMBE 2019 is taking place in Manchester, UK on 21-25 July 2019 at the state of the art venue in Manchester Central. Full details on the symposia programme and

confirmed keynote speakers can be viewed here (<https://t.e2ma.net/click/hp23v/9yk2r1/1on37f>).

A range of awards can be applied for during Abstract submission, all of which require SMBE membership (costing only \$10/\$30 for 3 years for students/others at <https://www.smbe.org/smbe/MEMBERSHIP.aspx> (<https://t.e2ma.net/click/hp23v/9yk2r1/hho37f>)) at the time of application.

Current graduate students and postdoctoral researchers who received their primary doctoral-level degree no earlier than one year prior to the start of the annual meeting of the society may apply for the Fitch award (<https://t.e2ma.net/click/hp23v/9yk2r1/x9o37f>). Extended abstracts are no longer required this year, just the conference abstract and a cv. Unsuccessful Fitch applicants will automatically be considered for Young Investigator and Registration awards.

Any graduate student or postdoc may apply for the Young Investigator Award (<https://t.e2ma.net/click/hp23v/9yk2r1/d2p37f>), which substantially funds the cost of attending. Application materials are the same as for the Fitch, i.e. abstract and cv. Unsuccessful applicants for both will automatically be considered for Registration-only awards.

Undergraduates (including Masters students under a 3+2 system) can apply for the Undergraduate Travel & Mentoring award (<https://t.e2ma.net/click/hp23v/9yk2r1/tuq37f>). In addition to presentation title and abstract, this requires a short explanation (250 words) of why you want to attend this meeting, including mention of whether you fall into a group traditionally under-represented at SMBE, such as enrolling in university later in life or being the first in your family to attend university. You also need to arrange to have a short letter of support (250 words) sent from your academic supervisor to masel@email.arizona.edu, confirming that you are undergraduate or a Masters student under 3+2, and that the research is your own.

Carer Travel Awards (<https://t.e2ma.net/click/hp23v/9yk2r1/9mr37f>) can be applied as part of conference registration rather than abstract submission, or by email to nicolas.galtier@umontpellier.fr if an earlier response is needed. SMBE will make available up to \$2000 to SMBE members with children or dependent adults (including adult children with a disability or elderly relatives) to spend as they wish to facilitate the members attendance at the annual SMBE meeting. Examples of eligible expenses include (but are not limited to) providing airfare for your child or for your caregiver to accompany you, flying a relative out to help with care at your home while you're at the meeting, or extra help paying for on-site daycare.

A range of sponsorship opportunities have been developed for the meeting, if interested please contact SMBE2019@mci-group.com.

For any queries over abstracts or registration, please contact SMBE2019@mci-group.com.

Society for Molecular Biology & Evolution
<smbe@allenpress.com>

Manchester SMBEMajorTransitions Jul21-25

We would like to invite you to the symposium on “The molecular basis of major transition in evolution”, to be held during the SMBE meeting in Manchester (21-25 July). More information about the SMBE symposia can be found here: <http://smbe2019.org/programme/-symposia-overview/> The history of life on Earth shows major evolutionary transitions, shifts in which new biological features emerged that dramatically changed the biology of organisms. The endless forms most beautiful we observe today are the result of these revolutions that shaped the biology of the planet. These innovations were at the centre of the seminal book “The Major Transitions in Evolution” by John Maynard Smith and Eörs Szathmáry, published nearly 25 years ago. They include the origins of cells and sex, major endosymbiotic events, or the rise of multicellularity and societies among others. The abundance of genomic data, new evolutionary algorithms, and emerging technologies - such as single-cell sequencing - offer a timely opportunity to study the molecular changes underlying most of these major transitions. Recent research has showed the importance of gene duplication (e.g., the origins of multicellularity), the evolution of cell types (the rise of animals or the nervous system), or the fusion of genomes from different organisms (eukaryotes and photosynthesis). In this symposium we will explore the molecular basis associated with these transitions at different organisation levels, from genes and cells to complete organisms.

Invited speakers Eörs Szathmáry, Biological Institute, Eötvös University, Hungary Purificacion Lopez-Garcia, CNRS, University of Paris Sud, France

The deadline for Abstract submission is 17th March. (<http://smbe2019.org/abstracts/>), more information on the meeting can be found here: <http://smbe2019.org/> Looking forward to see you in Manchester!

Signed the symposium organising team (Mary O’Connel,

Roberto Feuda, Jordi Paps)

Jordi Paps Montserrat <jordi.paps@bristol.ac.uk>

Marseilles 23rdEvolutionaryBiology Sep24-27

We are organizing again the evolutionary biology meeting at Marseilles (24-27 2019)

The DL is end of june

more info aeb.fr and twitter :EvolBiolMeetingMarseilles

The Evolutionary Biology Meeting at Marseilles is an annual congress which has gathered high level experts in evolutionary biology since its creation in 1997.

If the congress was initially a local meeting, it quickly gained an important weight in the scientific life. Indeed, whereas the number of participants has been increasing, the geographical origin of the researchers has been diversifying and widening year by year.

Today, the Evolutionary Biology Meeting at Marseilles has reached a worldwide dimension and plays a paramount role in the international scientific life: allowing the gathering of high level specialists, it encourages the exchange of ideas and stimulates the works of the researchers all through the world.

The following subjects will be discussed:

- * Evolutionary biology concepts and modeling;
- * Biodiversity and Systematics;
- * Comparative genomics and post-genomics (at all taxonomic levels);
- * Functional phylogeny;
- * Environment and biological evolution;
- * Origin of life and exobiology;
- * Non-adaptative versus adaptative evolution;
- * The « minor » phyla: their usefulness in evolutionary biology knowledge;
- * Convergent evolution
- * Evolution of complex traits (Evo-Devo)

Best regards

Pierre

< <https://twitter.com/pontarotti> >

PONTAROTTI Pierre <pierre.pontarotti@univ-amu.fr>

**Marseilles EvolBiol Sep24-27
EarlyDeadlineJan31**

Dear all the early dead line for the 23rd evolutionary biology meeting at Marseilles September : 24-27 2019 is January 31 2019 12 PM Paris Time <http://aeb.fr/evolutionary-biology-meeting-2/> the programs of the 22 previous meetings are available < <http://aeb.fr/evolutionary-biology-meeting-2/>> The meeting will be followed by several visits of the city and the calanques see also <https://twitter.com/pontarotti> <https://www.facebook.com/groups/203530083353767/> all the best

Pierre

< <https://twitter.com/pontarotti> >

PONTAROTTI Pierre <pierre.pontarotti@univ-amu.fr>

**MASAMB Hinxton UK Apr25-26
BursariesAvailable**

The MASAMB 2019 organizers invite applications for bursaries to support participation to the conference of early stage researchers with burdensome travel expenses. If interested, please either send an email to demaio@ebi.ac.uk with title "bursary MASAMB 2019" outlining the reasons for your request of a bursary, or otherwise give details in the 'Comments to the organisers' field during the registration process. <https://embl.ungerboeck.com/prod/emc00/register.aspx?OrgCode&EvtIDV68&AppCode=REG&CC8101134401> .

The deadline for submitting bursary applications is Friday 22nd February 2019.

Best regards,

Gos Micklem, Nick Goldman & Nicola De Maio

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

**MichiganStateU ASBMB
EvolutionGeneExpression May9-12**

Dear Colleagues,

We are pleased to invite you to "Evolution and Core Processes in Gene Expression", a symposium sponsored by the ASBMB and being held this year on the campus of Michigan State University, May 9-12, 2019.

<https://www.asbmb.org/specialsymposia/2019/-geneexpression/> We have an exciting lineup of speakers who will be presenting their research in a variety of areas that connect with evolution and gene expression across all domains of life.

The presentations, meals, posters session, and associated social events in an informal setting, ideal for students and postdocs to interact with the guest speakers, and we have reasonable rates that cover all talks and meals (and rooms for those needing accommodations).

We hope you will join us, and encourage you to put in an abstract soon - we will be selecting some of the entries from abstracts for oral presentations.

If you are on Twitter, please re-tweet our posting: <https://twitter.com/ArnostiDavid/status/1095084268911497217> Looking forward to your participation,

David Arnosti, Ingo Braasch, and Shinhan Shiu (Michigan State University), Julia Zeitlinger (Stowers Institute), Justin Fay (University of Rochester)

Dr. Ingo Braasch Assistant Professor Department of Integrative Biology College of Natural Science Michigan State University

braasch@msu.edu

**Montpellier DomesticationEvolution
Jun3-7**

Dear Colleagues,

We are happy to announce that the registration is now open for the Third Harlan International Symposium, 3-7th June 2019 Montpellier France.

Please check out our website : <http://www.harlan3symposium.org> This symposium is dedicated to the Origins of Agriculture and the Domestication, Evolution, and Utilization of Genetic Resources. This rare event is a great opportunity to gather the community around the latest advances in the study of these topics : don't miss it !

Four sessions will dynamise the discussions about the following subjects : - History of agriculture - Diversity and adaptation - Mobilization of genetic resources - Agrosystems services and functioning A keynote speaker will open each session : Greger Larson and Yves Vigouroux have already confirm their presence.

In addition, we will have the pleasure to welcome additional speakers, who will address broader perspectives to the discussion, through a daily opening lecture: among them Rachel Brezner Kerr and Ford Denison.

Finally, the Call for Abstracts will open very shortly : stay tuned !

Anne-Céline Thuillet, On Behalf of the organizing committee

Dear colleagues,

The Call for Abstracts is now opened for the Third Harlan International Symposium, 3-7th June 2019 Montpellier France. We invite you to submit an abstract for an oral or a poster presentation using the online submission form. Please check out our website : <http://www.harlan3symposium.org> < <https://www.alphavisa.com/harlan/2019/abstract-submission/> >

The deadline for abstract submission is 15 March 2019.

The Scientific Committee will evaluate the abstracts and confirm the type of presentation (oral or poster) and session retained.

Preliminary program :

Please refer to the Abstract —Guidelines < <https://www.alphavisa.com/harlan/2019/documents/Abstract-Guidelines.pdf> > in order to get information about the preliminary program and other useful information.

This symposium is dedicated to the Origins of Agriculture and the Domestication, Evolution, and Utilization of Genetic Resources. Four sessions will dynamise the discussions about the following subjects:

Â History of agriculture Â Diversity and adaptation Â Mobilization of genetic resources Â Agrosystems services and functioning

We kindly ask you to forward this message to anyone

who may be interested in the Third Harlan International Symposium.

We are looking forward to welcoming you to Montpellier in June.

Sincerely,

– Anne-Céline Thuillet For the organizing committee

Netherlands NLSEB 16Apr2019

Dear colleague,

Last chance to submit an abstract for the Netherlands Society for Evolutionary Biology (NLSEB) conference on Tuesday 16 April 2019 in Ede, The Netherlands.

Call for abstracts is open until February 8: <http://nlseb.nl/meetings/> With this yearly NLSEB conference, we aim to bring together scientists from all disciplines working on evolutionary questions, and build a broad community of evolutionary biologists based in the Netherlands. Therefore, the conference offers a broad overview of the topics and questions within evolutionary biology, presented in three exciting plenary talks.

- Geert Kops (Hubrecht Institute-KNAW) “Weird divisions: Evolutionary dynamics of eukaryotic kinetochores”
- Frietson Galis (Naturalis Biodiversity Center) “Developmental constraints and body plan evolution”
- René Geurts (Wageningen University) “Evolution of nitrogen-fixing symbiosis: why have so many plant species lost it?”

The NLSEB 2019 Conference organising committee Eveline Verhulst | Martijn Egas | Katja Peijnenburg | Marian Bemer | Bertus Beaumont | Sijmen Schoustra

e-mail: meeting@nlseb.nl

K.T.C.A.Peijnenburg@uva.nl

PorquerollesIsle France MathCompEvolutionBiol May26-30

DEADLINE EXTENSION FEBRUARY 20 MCEB - Mathematical and Computational Evolutionary Biology ' 2019, May 26-30 Porquerolles Island, South of France

Webpage: <http://www.lirmm.fr/mceb2019/> Pre-registration and abstract submission deadline: 2019, February 20 Notification to applicants: 2019, March 10 Final list of attendees: 2019, April 14

Scope: Mathematical and computational tools and concepts form an essential basis for modern evolutionary studies. The goal of the MCEB conference (at its 11th edition) is to bring together scientists with diverse backgrounds to present recent advances and discuss open problems in the field of mathematical and computational evolutionary biology. The theme of this year's edition will be "Towards better trade-offs between speed and accuracy for the analysis of very large data sets in evolutionary biology". We will discuss the current solutions and stimulate a larger debate on the most appropriate ways to make sense of the wealth of genomic data currently available. General concepts, models, methods and algorithms will also be presented and discussed, just as during the previous conference editions.

Where and when: Porquerolles Island, near Hyères, in the South of France, May 26-30, 2019. The conference will begin Sunday evening with an aperitif and dinner, and will end at about 2pm on Thursday.

Cost: around 500€(Includes accommodation for four nights, meals, coffee breaks, etc.).

Keynote speakers:

Michael Blum <http://membres-timc.imag.fr/Michael.Blum/index.html> Genome wide association studies and polygenic models

Olivier Delaneau <https://odelaneau.github.io/lap-page/> Systems and population genetics

Dannie Durand <https://www.cmu.edu/bio/people/faculty/durand.html> Genome Evolution

Laura Eme <http://www.ettemalab.org/laura-eme/> Phylogenomics at the Origin of Life

Andrew Francis https://www.westernsydney.edu.au/staff_profiles/uws_profiles/professor_andrew_franis The Mathematics of Phylogenetics Networks

Guy Sella <https://systemsbiology.columbia.edu/faculty/guy-sella> Advances in Population Genetics

For more information, visit the website at: <http://www.lirmm.fr/mceb2019/> PLEASE FORWARD THIS ANNOUNCEMENT!

Olivier GASCUEL <olivier.gascuel@pasteur.fr>

Portland Oregon Sex Asex Jun2-4

Early Bird Registration is now open for AGA2019!

Sex & Asex: The Genetics of Complex Life Cycles
American Genetic Association President's Symposium
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 are obligately asexual. Recently, scientists have been applying both theory and empirical work, including genomic and genetic studies, to untangle the evolutionary effects of the amount and timing of sexual and asexual reproduction.

Join AGA President Maria Orive at beautiful McMenamins Edgefield. AGA symposia are small, friendly gatherings, and provide wonderful opportunities for researchers and students to engage with one another and share their science.

Free registration is available for the first 25 students or postdocs presenting posters. Eight of these abstracts will be chosen for oral presentation and a \$300 travel voucher.

Details on the AGA website: <http://www.theaga.org>. Speakers include: Key Distinguished Lecturer Sally Otto Rebecca Zufall, University of Houston Stacy Krueger-Hadfield, University of Alabama at Birmingham Matthew Hartfield, University of Edinburgh Laura Katz, Smith College Tanja Schwander, University of Lausanne, Switzerland Curt Lively, Indiana University Catherine Rushworth, UC Davis Solenn Stoeckel, INRA Rennes, France Jennifer Anderson, Uppsala University, Sweden Mercedes Burns, University of Maryland Jeanette Whitton, University of British Columbia
ccough-schulze@cvm.tamu.edu

Portland Oregon SexAsex Jun2-4

Registration is open for AGA2019!

If you are a student or postdoc and want free registration and the chance for an oral presentation, register soon Xspace is filling up! Details below.

Sex & Asex: The Genetics of Complex Life Cycles
American Genetic Association President's Symposium
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 are obligately asexual. Recently, scientists have been applying both theory and empirical work, including genomic and genetic studies, to untangle the evolutionary effects of the amount and timing of sexual and asexual reproduction.

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“Cough-Schulze, Chantal” <ccough-schulze@cvm.tamu.edu>

Providence Evolution2019 Jun21-25

EVOLUTION 2019 – Annual joint meeting of the ASN/SSB/SSE

June 21-25, Rhode Island Convention Center in Providence, RI

<http://www.evolutionmeetings.org> Main conference registration is now OPEN / Talk & poster submission are also OPEN.

Talks will be accepted until May 15 or until capacity is reached, WHICHEVER IS EARLIER.

Posters accepted until May 15.

T-shirts not yet available for purchase; you can log back into the registration system later to add them when they become available.

Hotel accommodations: <https://www.evolutionmeetings.org/accommodation.html>

Dorm accommodations are booked DURING conference registration. The majority of rooms are double and you must specify your roommate to reserve a room. Help finding a roommate here: <https://docs.google.com/spreadsheets/d/1ePZ72-2FrTVZpucANJVQDhnlL3Wg8Yn2e9JeObIxWVo/-edit?usp=sharing> Answers to nearly all question you may have about the conference can be found on the meeting website.

APR. 15 IS AN IMPORTANT DATE

- Early registration discount ends
- Applications for ASN and SSE student/pdf travel grants close
- Applications to volunteer at the conference in return for 100% rebate on early registration fees close
- Applications for Mayr and Hamilton awards close.
- ***Eligible students wanting to apply should register for a regular talk ASAP as these may fill prior to Apr. 15 (you can edit your talk details later)***

OTHER INFORMATION

- Consider giving a poster; our poster invite app will allow you to invite up to 3 attendees of your choice to come view it. This can dramatically change the relative value of a poster compared to a talk
- Free professional childcare available on-site. Bookings are done during conference registration.

- There are MANY optional events before and during the conference. Some required pre-registration. Details on the website.

- Sponsor/exhibitor registration is also open.

hrundle@uottawa.ca

SouthernNewHampshireU GenomesEvol Jul14-19

How Genomes Illuminate Our Understanding of Ecological and Evolutionary Processes

July 14 - 19, 2019 Ecological and Evolutionary Genomics Gordon Research Conference

Registrations now open ***At least 8 talks will be selected from abstracts submitted by young investigators (trainees and PIs)***

Chairs :

Christian Landry and Angela Douglas

Vice-chairs :

Camille Berthelot and Sarah D. Kocher

See list of invited speakers and details here:

<https://www.grc.org/ecological-and-evolutionary-genomics-conference/2019/> ***Note new location, closer to Boston (70 min) and Manchester (20 min) airports***

Southern New Hampshire University 2500 North River Road Manchester, NH, US

Meeting description 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.

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

SplitCroatia EvoKE LearningEvolution Sep26-28

Dear all,

The EvoKE community (Evolutionary Knowledge for Everyone) had launched a call to organise workshops during the next EvoKE conference. We at EvoKE seek to contribute to a world where people understand evolution and can use scientific knowledge and skills to make informed decisions that address societal problems thereby contributing to an inclusive, sustainable and resilient future. EvoKE is a diverse, open community that was seeded at the EvoKE 2017 - a successful meeting that took place in Porto, Portugal. The next meeting - EvoKE 2019 - will take place from 26th to 29th September 2019 in Split, Croatia. During these days, our international and interdisciplinary community will meet to learn, collaborate and develop creative and effective education and outreach projects.

We would therefore like to offer workshops and workgroup sessions around five major topics:

- common misconceptions in evolution and how to deal with them;
- personal communication: training in body language and persuasive communication, concluding with a script/screenplay of a short evolutionary stand-up performance;
- how to communicate effectively with media, and how to engage journalists with evolutionary biology work and messages;
- how to organize an outreach event: identifying needs, finding partners and funders, planning actions and engaging with the public;
- how to evaluate the impact of an outreach event and use this information to improve it.
- producing and evaluating educational activities in evolution for different age groups.

Do you have experience or expertise in one of the six topics listed? Do you have other great ideas that you

could offer to the EvoKE community not listed above? Would you like to share your expertise with the EvoKE community? Then apply to organize one workshop at EvoKE2019!

Deadline for applications February 28th. More information on the workshop formats and on the application process here. The EvoKE2019 team

geralttee@gmail.com

Tjarno Sweden GeneFlowBarriers Jun17-19

Dear colleagues

Just a reminder for our SMBE Satellite Meeting and Workshop on 'Identifying barriers to gene flow in the genome' to be held 17th-19th June 2019 at the Marine Biology Laboratory, Tjärnö, Sweden. The deadline for registering is the 25th February - so there is still time to sign up!

Speciation genomics is a fast moving and rapidly changing field. Genome scans and demographic inference are popular tools for studying how barriers to gene flow evolve and how species diverge, but the field has only recently begun to take into account confounding factors that might bias these methods.

If standard approaches are insufficient for identifying barriers to gene flow and understanding the processes involved in speciation, where do we go next? One way forward is the use of sophisticated approaches to jointly infer signals of selection, gene flow and demographic history. We can also use efficient simulation to introduce greater statistical rigour to our approaches.

This three day workshop/meeting on speciation genomics will combine talks from invited speakers and participants, a discussion panel and a hands-on workshop to learn how to use a composite likelihood approach to infer selection, gene flow and demography from genome scan data.

Invited speakers include: * Reto Burri (University of Jena) * Jonna Kulmuni (University of Helsinki) * Kelley Harris (University of Washington) * Simon Aeschbacher (University of Zurich) * Frederic Guillaume (University of Zurich)

The practical workshop will be led by Jerome Kelleher (Big Data Institute, Oxford) (the importance of simulations) and Konrad Lohse (Univer-

sity of Edinburgh). Some basic experience in Unix, and Python programming is necessary but we provide links to resources on our website: <https://smbespeciationgenomics.github.io/> There is space for approximately 40-50 participants. To apply, please register at <https://smbespeciationgenomics.github.io/-register/>. The deadline for applications is 25th February 2019.

It is free to register but attendance will cost \$300 (US) to cover accommodation and food for the three days. Travel bursaries are available for MSc and PhD students wishing to attend.

We encourage participants from all backgrounds and levels to apply and we look forward to welcoming you to Sweden in June!

<https://smbespeciationgenomics.github.io/> Mark Ravinet, Marina Rafajlović, Michael Matschiner, Simon Martin, Chris Jiggins & Markus MÅ

mark.ravinet@ibv.uio.no

Toulouse EB2019 May19-24 PhyloPopGenomics

Last week to submit an abstract for Ecology and Behaviour 2019 (Toulouse, May 19-24). This conference is intended for students and researchers interested in evolutionary biology, ecology and behavior. We have 7 thematic sessions, including "Phylogeny and population genomics" with Knud Jønsson and Ludovic Orlando as plenary speakers. We have a couple of remaining slots for this session if you want to share your work and discuss in a friendly atmosphere with people interested in evolutionary biology.

To submit an abstract for an oral presentation or a poster, please login on our website <https://eb2019.sciencesconf.org/> and go to "Submissions". Abstracts should be written in English and not exceed 250 words.

The other symposia and invited speakers are:

* Intraspecific interactions: Charlotta Kvarnemo and Mike Wilson

* Non-genetic heredity: Lucy Aplin and Etienne Danchin

* Cognition: learning and memory: Alice Auersperg and Audrey Dussutour

* Conservation and global change ecology: Mike Bruford

and Camille Parmesan

* Interspecific interactions: Camille Bonneaud and Frédéric Santoul

* Ecophysiology and ecotoxicology: Mathieu Giraudeau and Lieven Bervoets

We offer registration, accommodation and lunches to students exhibiting their work during the conference. Registration fees (including lunches) for postdocs and researchers are 70€ and 130€, respectively. We also have a special deal for low prices accommodations on the university campus (100€ for the week). Please visit our website or follow us on twitter (@EcoBehav2019) for more information.

We look forward to seeing you in the Ville Rose!

Maëva Gabrielli, for the E&B organising committee (EDB lab, Toulouse)

Maëva Gabrielli <maeva.gab@hotmail.fr>

Turku Finland ESEB2019 Aug19-23 Call Abstracts

The European Society for Evolutionary Biology (ESEB) organizes Europe's largest evolutionary biology conference every 2nd year. The 17th ESEB congress will be held from 19-23 August 2019 in Turku, Finland, the gateway to the Finnish archipelago. There will be five plenary speakers, as well as 8 concurrent sessions covering 35 themed symposium topics (full list below) plus an open symposium. Each symposium has two invited speakers plus a number of presenters selected from the submitted abstracts. There is a cap of 1300 participants. More details about the congress can be found at <https://eseb2019.fi/> The ESEB2019 call for abstracts is now open and remain open until 23:59 EET on 31.3.2019 (note that Finland is one hour ahead of central Europe!). Submitted abstracts can be modified up until the deadline, and therefore early submission of first drafts is encouraged. The titles of all 36 symposia can be found at the end of this message. More detailed descriptions of each symposium and their invited speakers, as well as the abstract submission system itself can be accessed via the conference web page:

<https://eseb2019.fi/symposia-and-abstracts> Each congress participant is permitted to submit only one (max. 250 word abstract, max. 15 word title) abstract as a presenter (co-authorships in other abstracts are

allowed). The only exception to this rule is that participants can submit a second abstract as a presenter to Symposium 35: Evolution outreach projects: Keep SCREAMing. Submitters have the opportunity to select a first and second preference symposium for their abstract.

Researchers submitting to Symposium 36: Open Symposium are encouraged to read the symposium description for more details about additional information required when submitting to this symposium. This information will assist organisers in arranging Open Symposium presentations into sub-themes not covered by the 35 themed symposia.

The expected length of presentation slots is 15 minutes (10+3+2) for regular presentations and 30 minutes (23+5+2) for invited speakers. Due to the tighter timeline being implemented for abstract submission (in previous ESEB meetings, abstract submissions closed in January), there will be no extension to this deadline.

Abstracts will be blind-evaluated by symposium organisers during April. All abstract submitters will be notified of the fate of their abstract by the end of April, and those being accepted for oral or poster presentations are required to register for the congress by May 10. If they do not register by this date, their talk/poster slot will be offered to other participants, who will have the chance to register prior to general earlybird registration opening on May 15.

Details of grants available for supporting travel and family arrangements can be found on the ESEB website <https://eseb.org/prizes-funding/equal-opportunities-initiative/> Equal opportunities initiatives being implemented at ESEB2019 can be found here: <https://eseb2019.fi/equal-opportunities> We look forward to seeing many of you in Turku in August!

Craig Primmer (on behalf of the organizing committee)

ESEB2019 symposium titles

- 1 Trans generational plasticity in animals
- 2 Evolution in real time: experimental evolution approaches
- 3 Exploring the role of nongenetic inheritance in evolution
- 4 Cognitive evolution and environment
- 5 Aging & cancer through the lens of evolution
- 6 Evo-evolutionary approach to the antimicrobial resistance problem
- 7 Human-induced evolution
- 8 Genetics of small populations
- 9 Microbial genome and community evolution in food environments
- 10 Rapid Evolutionary Adaptation: Potential and Constraints
- 11 Quantitative trait effect size distributions and their impact on evolutionary processes
- 12 Quantifying selection and evolvability in wild plant populations: methods and measurements
- 13 Genetics and genomics of adaptation
- 14 The mechanisms

of evolutionary change: moving from genomic signatures to functional validation 15 Tracing evolution through time using ancient DNA 16 Mito-nuclear interactions across levels of biological organisation 17 Selfish genetic elements 18 The genetic architecture of polygenic adaptation: sweeps, small shifts and everything in between 19 "Gene-phenotype associations across evolutionary scales

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UCadiz Spain BiodiversityConservation Sep19-21

Dear all,

Nature and Oceans of Americas and Botanical Garden of University °Marta Abreu± de las Villas, Cuba in collaboration with The Center of Scientific Collections of the AlmeraUniversity(CECOUAL) and The Andalusian Center for the Assessment and Monitoring of Global Change(CAESCG), is also glad to announce the 4th Symposium on Biodiversity and Nature Conservation: Dissemination and transfer of knowledge among all social sectors.

The fourth annual Symposium will take place on September 19th-21st, 2019 at the University of Cadiz, Spain.

This will become a great venue for a diversity of researchers, managers, conservationists, environmental journalists, and the general public, so we hope to attract a diverse group.

Information about our meeting:

Our goal is to better integrate all society sectors focused on conservation. We plan to continue annual workshops in every corner of Spain. This will be our 4th annual meeting and we have been attracting scientists from all over the country and overseas.

Registrations are now open.

Abstract and early bird registration is due on June 1st, 2019.

Symposium has a limited capacity of students.

Link to meeting information: <http://www.wordpress.conserbio.com>

www.facebook.com/infoconserbio/ The registration form for the 2019 Symposium is active:

<https://forms.zohopublic.eu/sommsnet/form/-Conserbio/formperma/8HzxrzIHvFUj2IsO1mVSOFU-KVu9DmrUHa1Kcxqvkyg> For further information, please feel free to contact us: infoconserbio@gmail.com

The organizing committee

marga lopez rivas <margaflor13@hotmail.com>

Uppsala CooperationAndConflict May21-22

Registration is open for The Evolution of Cooperation and Conflict: from theory to experimental evaluation.

Research on conflict and cooperation has recently gained momentum due to major theoretical and genomic breakthroughs that have expanded the research horizon. Interestingly, even though the conflict and cooperation communities employ many of the same research tools and frameworks, they often proceed independently of each other. Our goal in this conference is to integrate these two complimentary communities to build new and productive links between them.

The conference will take place May 21-22 2019 at Uppsala University. Invited speakers include:

Duur Aanen ' Associate Professor, Department of Plant Sciences, Wageningen University, Netherlands. Mutualisms, evolution of cooperation.

Sylvia Cremer ' Professor, Institute of Science and Technology, Austria. Social insects and social immunity.

Kelly Dyer**' Associate Professor, Department of Genetics, University of Georgia, USA. Meiotic drive and intra-genomic conflict.

Urban Friberg ' Senior Lecturer, Department of Physics, Chemistry and Biology, Linköping University, Sweden. Mito-nuclear interactions, sexual conflict over ageing.

Harmit Malik ' Group Leader, Basic Sciences Division, Fred Hutchinson Cancer Research Center, USA. Transposable elements and centromere interactions.

Marcus Roper 'Professor, Department of Mathematics, University of California, Los Angeles. Cooperation in fungal mycelia.

Tanja Schwander ' Assistant Professor, Department of Ecology and Evolution, University of Lausanne, Switzerland

land. The genomics of sexual conflict and mating system evolution.

Joan Strassmann ' Charles Rebstock Professor, Department of Biology, Saint Louis University, USA. Cooperation in Dictyostelium.

Stuart West ' Professor, Department of Zoology, Oxford University. Theoretical aspects of social cooperation.

Sarah Zanders ' Assistant Professor, Department of Molecular and Integrative Physiology, University of Kansas. Meiotic drive and selfish genes.

More details are available at <https://-evolutioncoopconflictconference.wordpress.com/> Registration is free, at <https://www.eventbrite.co.uk/-e/the-evolution-of-cooperation-and-conflict-from-theory-to-genomes-to-phenotypes-tickets-54725551598> We look forward to seeing you in Uppsala!

Hanna Johannesson & Judith Mank

Judith Mank <mank@zoology.ubc.ca>

Warsaw EvolutionMammals Sep23-27

8TH EUROPEAN CONGRESS OF MAMMALOGY
TO BE HELD IN WARSAW, POLAND IN SEPTEMBER 2019

The European Congresses of Mammalogy aim to bring together mammalian biologists from European and also

non-European countries.

The relaxed and friendly atmosphere of these congresses provides an excellent opportunity to hear the latest developments in various fields of mammalogy,

to share research experience and expertise, and to develop new and closer contacts with colleagues from different countries.

Following the successful congresses in Lisbon (1991), Southampton (1995), Jyväskylä (1999), Brno (2003), Siena (2007), Paris (2011) and Stockholm (2015)

it is now the turn of a Central European country to host this exciting event and to invite mammalogists to the 8th European Congress of Mammalogy (ECM8) in Warsaw, Poland.

On behalf of the Local Organising and Scientific Committees we are pleased to invite you to attend the 8th European Congress of Mammalogy to be held 23 - 27 September 2019 in Warsaw, Poland.

We are looking forward to welcoming you in Warsaw in 2019!

Please, mark the date and visit the conference website for more information:

www.ecm8.org

FOR QUESTIONS, PLEASE CONTACT THE CONFERENCE SECRETARIAT:

Convention+

Tel: +48 22 826 30 82

Email: zuzanna.jedrych@trip.pl

Zbynek <z.borowski@ibles.waw.pl>

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CNRS Gif DynamicsTransposableElements

Dear all,

We are looking for a PhD student for this 3-year fully-funded position in Gif-sur-Yvette, France.

Please apply through the CNRS website <https://emploi.cnrs.fr/Offres/Doctorant/UMR9191-ARNLER-001/Default.aspx?lang=EN>.

Dynamics of transposable elements : model and biostatistical approaches

* Scientific context

Transposable elements are repeated DNA sequences often constituting a substantial part of the genome content [1, 2]. Due to their ability to move and amplify, they are often considered as “selfish DNA” sequences, which evolutionary success does not depend on a selective advantage conferred to the individuals carrying them [3, 4, 5].

Transposable elements are known to jump frequently across species borders and are able to invade new genomes after such horizontal transfer events [6]. Invasions are fast at the evolutionary scale, and difficult to track in nature. Yet, it is now possible to reproduce them in lab conditions, a procedure known as experimental evolution [7]. In our lab, a research program devoted to the study of transposable element experimental invasions is being carried out in the model

species *Drosophila melanogaster*. Transposable element sequences from other species can be artificially introduced in the genome of lab flies, and such new element carriers can be introduced in experimental populations in which the element is not present. The number, frequency, and location of transposable element copies can then be followed through molecular biology techniques [8].

* PhD project

We are looking for a PhD student to focus on the analysis of these experimental data. The PhD project is defined along two axes, the first one corresponding to the formalization of dynamic models, and the second one to bioinformatics analysis.

Dynamic, population genetics models will describe the evolution of the number and the frequency of transposable element copies in populations. They will be based on traditional models in transposable element population genetics [9, 10], and will accommodate recently-described mechanisms (such as the epigenetic-driven regulation of transposition through small RNA, [11]). Models will feature stochastic phenomena (genetic drift, recombination, mutations, sampling effects), and will be used for statistical inference of parameters of interest (such as transposition rates or regulation strength) from experimental data.

The bioinformatics analysis will deal with the data generated by sequencing the experimental populations. The PhD candidate will have to infer new transposable element insertion sites, as well as their frequencies in populations. Standard and/or ad-hoc statistical methods (such as site frequency spectrum analysis) will then be applied in order to reconstruct the evolution and

the distribution of transposable elements during genome invasion.

* Required skills and training

We are looking for a student trained in bioinformatics, statistical methods, and dynamical system analysis. The PhD candidate should have basic training in computer sciences, including programming (programming languages used in our research group are R, Python, and C++). A solid experience in population genetics or evolutionary biology is also expected. Good level in written/spoken English is requested.

* References

[1] Wicker, T., Sabot, F., Hua-Van, A., Bennetzen, J. L., Capy, P., Chalhoub, B., ... & Paux, E. (2007). A unified classification system for eukaryotic transposable elements. *Nature Reviews Genetics*, 8(12), 973. [2] Hua-Van, A., Le Rouzic, A., Boutin, T. S., Filée, J., & Capy, P. (2011). The struggle for life of the genome's selfish architects. *Biology direct*, 6(1), 19. [3] Orgel, L. E., & Crick, F. H. (1980). Selfish DNA: the ultimate parasite. *Nature*, 284(5757), 604. [4] Doolittle, W. F., & Sapienza, C. (1980). Selfish genes, the phenotype paradigm and genome evolution. *Nature*, 284(5757), 601. [5] Le Rouzic, A., & Capy, P. (2005). The first steps of transposable elements invasion: parasitic strategy vs. genetic drift. *Genetics*, 169(2), 1033-1043. [6] Gilbert, C., & Feschotte, C. (2018). Horizontal acquisition of transposable elements and viral sequences: patterns and consequences. *Current opinion in genetics & development*, 49, 15-24. [7] Kawecki, T. J., Lenski, R. E., Ebert, D., Hollis, B., Olivieri, I., & Whitlock, M. C. (2012). Experimental evolution. *Trends in ecology & evolution*, 27(10), 547-560. [8] Robillard, A., Le Rouzic, A., Zhang, Z., Capy, P., & Hua-Van, A. (2016). Experimental evolution reveals hyperparasitic interactions among transposable elements. *Proceedings of the National Academy of Sciences*, 113(51), 14763-14768. [9] Charlesworth, B., & Charlesworth, D. (1983). The population dynamics of transposable elements. *Genetics Research*, 42(1), 1-27.

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ETH Zurich Evolution Antibiotic Resistance

Spread and evolution of antibiotic resistance encoded on prophages

ETH Zurich, Institute of Integrative Biology

Supervisor: Dr. Carolin Wendling

SNSF funded PhD Project (3 years)

The Pathogen Ecology Group at the ETH is offering a PhD position in the field of antibiotic resistance evolution starting from June 2019 at the earliest.

Background:

A worldwide increase of life-threatening antibiotic resistant (AR) pathogens is a major global health problem. This trend is predicted to increase with ever increasing misuse and overuse of antibiotics, which accelerates the evolution of AR. In addition, we are limited in controlling the spread of antibiotic resistance genes (ARGs) due to an incomplete understanding of the underlying ecological and evolutionary forces. One important mechanism of transferring ARGs between different bacteria are temperate bacteriophages (prophages), i.e. viruses that can incorporate their own genetic material into the bacterial chromosome, thereby providing their bacterial host (which is now called lysogen) with additional genes, such as ARGs. However, despite their vast abundance in nature, our understanding of the contribution of prophages to the spread of AR is still incomplete.

Project description:

In this project we will use experimental populations of antibiotic susceptible *E. coli* and antibiotic resistant *E. coli* (resistance comes from an integrated prophage). We will employ a combination of evolution experiments in different environmental conditions, whole genome sequencing and microbiology, to unravel the ecological and evolutionary drivers influencing the spread of antibiotic resistance encoded on prophages in real time.

The student will, therefore, be able to acquire a broad set of lab skills (microbiology and molecular biology) and analytical techniques (statistics and bioinformatics). The student will be supervised by Dr. Carolin Wendling and will be part of the Pathogen Ecology Group, lead by Prof. Dr. Alex Hall at the ETH Zurich. ETH hosts a supportive and vibrant evolutionary microbiol-

ogy community and the candidate will have the chance to interact with many researchers from other groups at the institute through joint seminars and meetings.

The project will suite a motivated student interested in using ecology and evolution to study the spread of drug resistance. Students must hold a Masters degree (or equivalent), and should have a record of research projects conducted during or after their previous studies preferably in the field of ecology and evolution. Very good written and spoken English is essential. The candidate is expected to work independently and to develop his/her own project ideas. Experience with either practical microbiology, molecular biology or bioinformatics is desirable.

If you are interested please send your application (one pdf file including CV, brief research interest and contact details of at least two references) to Dr. Carolin Wendling (carolin.wendling@env.ethz.ch) until 31th March 2019.

“caro.wendling@web.de” <caro.wendling@web.de>

Europe 15 MarineEvolution

Dear all,

Please see the following opportunity and pass it on to anyone who might be interested.

Thanks, Fausto Tinti

15 fully-funded PhDs in marine historical ecology (zooarchaeology / palaeogenetics / marine zoology), starting autumn 2019: call for expressions of interest

We are pleased to announce the launch of the SeaChanges Marie Sk³odowska-Curie Innovative Training Network, offering 15 fully-funded PhDs spread across the Universities of York, Groningen, Copenhagen, Bologna, Oslo, and Cambridge, and the Marine Research Institute of the Spanish National Research Council (CSIC).

SeaChanges bridges archaeology and marine zoology in order to improve understanding of the time depth of human exploitation and impact on marine species, and to train a cohort of researchers with the necessary skills to operate across disciplinary and sectoral boundaries to this end. This is achieved via a network of complementary research projects that apply diverse methods to address both socio-economic and ecological themes, covering all of Europe’s seas, key marine species, and

timescales from decades to millennia. The PhD projects are supported by a programme of dedicated training workshops in bioarchaeology, marine ecology, data management, and communication with stakeholders and the public.

Each PhD studentship is a 3-year position with a highly competitive salary and dedicated research/training budget, open to applicants of any nationality (subject to rules regarding trans-national mobility). Full eligibility criteria and a list of projects are available on the SeaChanges website < <https://sites.google.com/york.ac.uk/seachanges> >.

The formal application process is due to open in March 2019, with successful applicants taking up their positions from October 2019. In the meantime, we invite expressions of interest from potential candidates. If you are interested, please review the project descriptions and eligibility criteria and complete the form here < https://docs.google.com/forms/d/e/1FAIpQLSdJVnAWfJVSf7JBgZSevYkMu8dKYT0JkbDVuWVT01Qofyviewform?usp=sf_link > ideally by March 8th 2019, or email seachanges@palaeome.org for more information.

Best,

David Orton (Coordinator) & the SeaChanges team

Fausto Tinti, PhD

Associate Professor of Zoology, Alma Mater Studiorum - University of Bologna, Italy

E-mail: fausto.tinti@unibo.it Skype contact: fausto.tinti <https://www.unibo.it/sitoweb/fausto.tinti/en> Mobile ph. +39 346 2387235

Lab. Genetics & Genomics of Marine Resources & Environment - GenoDREAM Dept. Biological, Geological & Environmental Sciences via Sant’Alberto, 163 - 48100 Ravenna, Italy Ph. +39 (0)544/937311 - Fax +39 (0)544/937411

Fausto Tinti <fausto.tinti@unibo.it>

ImperialC London eDNA

PhD Studentship to start October 2019

Metagenomics for the bioassessment of water bodies using mesocosms experiments Supervisor: Professor Vincent Savolainen (Imperial College London) www.imperial.ac.uk/people/v.savolainen <http://www.imperial.ac.uk/ecosystems-and-environment> Co-

supervisor: Dr Roger Van-Egmond, Unilever

This is a fantastic opportunity to apply cutting-edge DNA technologies, outdoor experiments and bioinformatics to advance our knowledge of the effects of pollution to freshwater ecosystems.

The project is co-funded by BBSRC and Unilever. It is mainly based at the Silwood Park Campus of Imperial College London, but will involve working visits at the Colworth Science Park of Unilever.

Start date: October 2019 (for 4 years)

Water bodies and their resident biodiversity are at risk from contaminants, disease agents, biological invasions and abiotic stressors. In the European Union, the Water Framework Directive is designed to provide the means to assess, monitor and manage water bodies in order to ensure safety, economic and natural resources sustainability. Traditionally, biological quality is assessed by obtaining abundance and diversity measures of existing communities using morphological methods. There is the need for conventional approaches to be supplemented with new technologies as they are time-consuming, sometimes lacking accuracy and needing extensive taxonomic expertise. Here, we propose to explore new approaches for the assessment of water bodies, which benefit from the latest development in (eco)metagenomics, bioinformatic and chemical biology. Recent molecular advances, including the use of environmental DNA (eDNA) extracted from the water column, is revolutionizing this field, by generating novel high throughput data that could enable us to track and describe focal species as well as the wider food web within which they are embedded, and how they respond to external changes.

The student will advance eDNA and metagenomic approaches using mesocosms available at Imperial College. Mesocosm-based approaches are increasingly being recognized as spanning the critical gap between field observations and lab experiments, by offering realistic levels of biocomplexity, whilst also affording a degree of control and replication of experimental conditions. The student will assemble artificial communities in the mesocosms and evolve how eDNA metabarcoding can recover presence and abundance of those organisms, employing cutting-edge molecular computational methods to better exploit metagenomic data and derive maximum value. Subsequently the student will test how eDNA can be used to uncover the impact that a range of chemical stressors may have on these artificial communities.

Student Eligibility: The standard BBSRC residency and Imperial College eligibility criteria still apply (UK residency or citizenship). Besides a BSc at 2:1 or better, the student should hold, or expect to obtain, a Masters

degree (at Merit level or better). However, outstanding candidates without a Masters may be considered.

If you are interested, please send a full CV, letter of motivation and names of 2 referees to v.savolainen@imperial.ac.uk no later than 10 March 2019

Prof. Vincent Savolainen Professor of Organismic Biology

Director of the Grand Challenges in Ecosystems and the Environment Initiative

Department of Life Sciences Imperial College London, Silwood Park Campus Buckhurst Road, Ascot, SL5 7PY, UK Tel +44 (0)20 7594 2374 v.savolainen@imperial.ac.uk skype [vincent.savolainen1](https://www.skype.com/people/v.savolainen) www3.imperial.ac.uk/people/v.savolainen

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

IMPRS MaxPlanck 10 EvolutionaryBiology

The *International Max Planck Research School for Evolutionary Biology*

is offering *up to 10 PhD positions and fellowships*.

The graduate school is dedicated to highest level of research and training in all areas of contemporary Evolutionary Biology. It is a joint initiative of the Max Planck Institute for Evolutionary Biology, the University of Kiel and the Helmholtz Center for Ocean Research Kiel (GEOMAR). The school offers an internationally competitive research environment with state of the art facilities. The participating groups are working on a broad variety of scientific topics including molecular, behavioral, theoretical and organismal approaches.

The graduate program starts with a rotation period of three months followed by a PhD project of three years including seminars, courses and workshops. The language of the graduate school is English. Financial support is provided throughout the program.

*To obtain further information about our PhD program and application details (only online application possible), please visit our website at <http://www.evolbio.mpg.de/-imprs>. *

Well-motivated and highly-qualified students from all countries are welcome to apply. A Master of Science degree or a Diploma as well as a strong interest in Evo-

lutionary Biology and flexibility in the research project are prerequisites for entering the program. We are looking forward to your online application for a PhD project in the beautiful landscape of Northern Germany.

The deadline for applications is March 24, 2019.

The selection week will be held from June 17' 20 and the program itself starts on September 16, 2019.

Contact: Dr. Kerstin Mehnert,

August-Thienemann-Str. 2, 24306 Plön, Germany

email: imprs@evolbio.mpg.de phone: +49(0)4522 763 233

Kerstin Mehnert <mehnert@evolbio.mpg.de>

KoblenzU Biodiversity

Job announcement

University of Koblenz-Landau, Institute for Integrated Natural Sciences

PhD Position in Animal Ecology / Biodiversity Research

Application deadline: 28.02.2019

A PhD position is available at the Institute for Integrated Natural Sciences, University of Koblenz-Landau, Campus Koblenz. Starting date: April 1st 2019; duration: 3 years; salary scale: TV-L 13, 50%. We invite applications from highly motivated candidates with passion for and experience in research related to the biodiversity of agricultural ecosystems. Specifically, we will investigate the effects of different management regimes on arthropod communities. The successful applicant will (1) hold a M.Sc. degree (or equivalent) in biology or another relevant discipline, (2) have solid experience with at least one relevant taxon (e.g. butterflies, carabid beetles etc.), (3) have a solid background in (field) ecology, (3) experience with experimental designs in ecology and according statistical analyses, and (4) an excellent command of the English language.

To apply please send an email to klausfischer@uni-koblenz.de <<mailto:klausfischer@uni-koblenz.de>> before March, 1st 2019 and refer the following reference number: kf/2019. Please attach a single PDF file to this email including a (1) cover letter, (2) scientific CV including copies of all degrees, (3) motivation letter including personal research interests, (4) contact details of two academic referees, and (5) the abstract of the

latest thesis.

The University of Koblenz-Landau is an equal opportunity employer. Application expenses cannot be refunded. The official version of this advertisement is published on the university's homepage: <https://www.uni-koblenz-landau.de/de/uni/-organisation/stellen/wissenschaftliche-stellen>.

For any enquiries please contact: Prof. Dr. Klaus Fischer; e-mail: klausfischer@uni-koblenz.de

Prof. Dr. Klaus Fischer Institut für Integrierte Naturwissenschaften

Abteilung Biologie Universität Koblenz-Landau Universitätsstraße 1 D-56070 Koblenz

klausfischer@uni-koblenz.de

Phone: +49-261-287-2238

Klaus Fischer <klausfischer@uni-koblenz.de>

KwaZuluNatal SharksBoard BatoidPopulationSize

Graduate position: PhD Studentship on population bottleneck of batoids caught in the KwaZulu-Natal Sharks Board Bather Protection Programme, South Africa.

KwaZulu-Natal Sharks Board (www.shark.co.za) invites applications for a full-time PhD position to investigate genetic bottleneck in three batoid species (diamond ray **Gymnura natalensis**, flapnose ray **Rhinoptera javanica** and spotted eagle ray **Aetobatus narinari**) along the east coast of South Africa. The position is funded by the National Research Foundation (NRF) for a maximum of three years (2019-2021) and is available immediately. Although the NRF gives preference to local applicants, students from outside of South Africa are encouraged to apply and will be selected if they are clearly more qualified than any local applicants, particularly if one or more of the following criteria apply: a) a distinction in their previous degree (e.g. MSc *cum laude*); b) experience with microsatellites or next-generation sequencing applications and c) at least one publication in a reputable scientific journal.

This project is part of a multidisciplinary collaboration including Drs Kolobe Mmonwa and Matt Dicken (KwaZulu-Natal Sharks Board), Prof Peter Teske (University of Johannesburg) and Dr Aletta-Bester van der Merwe (Stellenbosch University). The student will be

based at the University of Johannesburg or Stellenbosch University for the duration of the project, with occasional visits to the KwaZulu-Natal Shark Board. There will be no sampling trips, as all genetic samples have already been collected.

Remuneration is R (ZAR) 120 000 per year (NRF). A short summary of the project is included below. Interested students should please send a single email to all the following addresses: pteske101@gmail.com, lucas@shark.co.za and aeb@sun.ac.za. Please include a short letter of motivation (max. 1 page) in which you outline relevant interests and skills, a short CV, and contact details of at least 3 referees (one of which should be your most recent supervisor or line manager).

***Summary:** The KwaZulu-Natal Sharks Board deploys shark nets to protect bathers against shark attacks at 32 popular beaches along the KwaZulu-Natal coast. Demographic analyses using catch data between 1979-2015 found that catches of two of the batoids commonly caught as bycatch in the nets were declining, which may be attributed to both the nets and to fisheries operating in the western Indian Ocean. This project aims to investigate genetic signals of population bottleneck of three batoids using next-generation sequencing methods. The scientific knowledge produced will be crucial in providing an objective evaluation of the impact of shark nets and other factors on batoid population size.

Dr KLM Mmonwa PhD (Marine Biology) Tel: +27 (0) 31 566 0400 Cell: +27 (0) 76 569 6373 FaxtoMail: 086 560 2927 E-mail: mmphosa@gmail.com

Kolobe Lucas Mmonwa <mmphosa@gmail.com>

MississippiStateU 2 ButterflyEvo

The Counterman lab at Mississippi State University is looking to recruit two highly motivated Ph.D. students interested in (1) evolutionary development, or (2) evolutionary genomics.

Currently funded research projects in the lab are focused on the genetic basis of adaptive variation and developmental plasticity in butterfly wing color patterns. We are particularly recruiting students interested in studying (1) the developmental pathways involved in structural coloration, or (2) the molecular evolution of gene families and networks across Lepidoptera. Current work on color pattern development focuses on *Heliconius* and several other butterfly species in collaboration

with Ryan Range at Auburn University. Current work on the evolution of gene families involved in adaptive divergence of butterflies is in collaboration with Federico Hoffmann at Mississippi State University. Students will also have opportunities to work closely with collaborators at the University of Puerto Rico (Riccardo Papa), George Washington University (Arnaud Martin), and the Smithsonian Tropical Research Institute in Panama (Owen McMillan).

Mississippi State University is home to a strong group of faculty researching evolution and genomics. The Department of Biological Sciences hosts an excellent graduate program in biology, and a new interdisciplinary, cross-college graduate program in computational biology is currently being established. MSU is located in Starkville, a quaint southern college town with a historic downtown district that celebrates the local music and cuisine. For more information on the Counterman lab please visit the lab website: (www.countermanlab.org). Interested students are encouraged to email Brian Counterman (bcounterman@biology.msstate.edu). Please include a brief description of your research interests and a CV in your email. The target date for applications for Fall 2019 admission to is March 31, 2019.

Brian A. Counterman Associate Professor Department of Biological Sciences Mississippi State University

bcounterman@biology.msstate.edu

www.countermanlab.org

man@biology.msstate.edu

BCounter-

Montpellier Kourou PlantEvolution

* PhD position in plant ecology at AMAP, Montpellier and ECOFOG, Kourou *

A 3-year PhD position is open with Dr Eric Marcon, Dr Géraldine Derroire and Dr Claire Fortunel, split between the department of Ecology of Guiana Forests (ECOFOG) in Kourou and the department of Botany and Modeling of Plant Architecture and Vegetation (AMAP) in Montpellier.

Background: Tropical forests represent a key biome because of the exceptional biodiversity they host and the ecosystem services they provide (e.g. carbon sequestration, climate regulation, etc.). They are highly threatened by global changes, especially climate change and forest degradation. Understanding how tropical forests respond to these threads is crucial to assess their

future, adapt management practices and ensure they will continue to provide essential ecosystem services. However, the role of biodiversity in tropical forests response to climate variation and anthropogenic disturbance remains relatively unexplored. Recent studies have highlighted the role of biodiversity in forest dynamics and functioning. Biotic interactions between neighboring trees depend on species strategies and can lead to competitive exclusion of less performant species and/or to species coexistence through niche differences. These complex biotic interactions can influence tropical tree response to global changes. A major challenge for ecologists is to better understand the combined effects of ecological mechanisms (e.g. environmental filtering and biotic interactions) on tropical forest dynamics in the context of global changes.

Project description: The successful applicant will develop and validate an innovative spatially-explicit modelling approach of tropical tree response to combined effects of biotic interactions with their neighbors and their abiotic environment (climate and disturbance). The model will integrate species functional traits and phylogenetic relationships to study their role in (i) intrinsic species performance (growth, mortality), (ii) response to abiotic environment (climate and disturbance) and (iii) response to neighborhood interactions. Models will use long-term forest monitoring data from the Paracou forest research station in French Guiana (> 30 year of annual/biennial monitoring on > 90 ha in disturbed and undisturbed plots). Functional traits data are available from previous work conducted by ECOFOG and AMAP, with some additional measurement of physiological traits related to drought resistance during the course of the PhD.

See http://amap.cirad.fr/fr/-detail_offre_accueil.php?id_offre%0 for more details.

We are looking for a highly motivated student with a background in ecology and modelling. Students must hold MSc degree in biology, ecology or statistics and modelling (or equivalent). The candidate is expected to work independently as well as in teams. Strong quantitative skills are required and experience in tropical systems is desirable. Good level of written and spoken English is essential, while a working level in French is desirable but not necessary.

Application: Applications should include (1) a CV, (2) a cover letter expressing your interest for this position, (3) a transcript of MSc grades, (4) a written example of your recent scientific work (publication or MSc thesis), (5) name and contact information for two to three references. Applications can be either in English or French. Application should be sent as one single pdf file

to Géraldine Derroire (geraldine.derroire@cirad.fr) and Claire Fortunel (claire.fortunel@ird.fr) before March 11, 2019.

For further information about the position, please contact Géraldine Derroire (geraldine.derroire@cirad.fr) and Claire Fortunel (claire.fortunel@ird.fr).

Claire Fortunel

Institut de Recherche pour le Développement UMR AMAP (Botanique et Modélisation de l'Architecture des Plantes et des Végétations) TA A51/PS2 34398 Montpellier Cedex 05 France <https://cfortunel.wordpress.com>
Claire Fortunel <cl.fortunel@gmail.com>

Muenster Plant Evolutionary Genomics

The Institute for Evolution and Biodiversity at the University of Munster, Germany, invites applications for a

PhD Position (salary level TV-L E13, 50%) in plant evolutionary genomics

The fixed-term position can start as soon as possible, preferentially before April 2019. The salary will be provided for 36 months. The regular working hours for full-time (100%) employment are 39 hours and 50 minutes per week.

The successful candidate will join the Plant Adaptation-in-Action group, headed by Prof Shuqing Xu (<https://www.unimuenster.de/Evolution/plantadapt/people/shuqingxu.shtml>). Our group studies the mechanisms and processes of plant adaptation using integrative approaches. Within this research framework, the new PhD student will primarily focus on identifying genes that were under natural selection using RNA-seq and whole genome resequencing data. As understanding evolutionary processes requires integrative approaches, we aim to train the student with interdisciplinary skills, such as in evolutionary genetics, chemical ecology and molecular biology. The model organisms we are working on are the giant duckweed (*Spirodela polyrhiza*) and wild Solanaceae species (e.g., wild tomato and potato).

During the project, in addition to learning new scientific skills/methods and gaining didactical proficiencies, the student will also get experience in project planning and management. The position offers the opportunity to acquire a PhD and serves to facilitate successful career

development both within and outside of academia. The candidate will also join the Munster Graduate School of Evolution (MGSE, <https://www.unimuenster.de/-Evolution/mgse/>), which offers both a stimulating studying environment and opportunities to explore excellent research in the fields of biology, medicine, geosciences, mathematics, and philosophy.

Requirements: We are looking for a highly motivated researcher of any nationality with the equivalent of an MSc degree in biology, evolutionary genetics or computer science. The successful candidate is expected to analyse a large amount of next generation sequencing data with a high degree of independence. Thus, a background in bioinformatics, biology and genetics is required. Applicants must demonstrate their skills in computer programming, statistics, large-scale data analysis and problem solving. Experience with analysing next generation sequencing data is an advantage. Our group consists of people from different nationalities, and teamwork is essential for all projects in the group. Therefore, excellent communication skills, as well as proficiency in spoken and written English are expected. Good knowledge in German is a plus.

The University of Munster is an equal opportunity employer, committed to increasing the proportion of women academics. Consequently, we actively encourage applications by women. Female candidates with equivalent qualifications and academic achievements will be preferentially considered within the framework of the legal possibilities. We also welcome applications from candidates with severe disabilities. Disabled candidates with equivalent qualifications will be preferentially considered, unless their disability prevents them from carrying out project-related work.

Applications must be in English and include (1) a motivation letter stating the research interests with reference to the stated requirements in no more than two pages, (2) a detailed CV including academic and extracurricular achievements, as well as all research experience, (3) abstracts of both the BSc and MSc thesis, and (4) contact details of at least two referees. Applicants should send their documents in one single PDF file to Prof Dr Shuqing Xu (shuqing.xu@uni-muenster.de) before 1 March 2019.

– Prof. Dr. Shuqing Xu Institute for Evolution and Biodiversity University of Munster Hufferstraße 1 D-48149 Munster E-mail: shuqing.xu@uni-muenster.de Phone: +49 251 83-21090

Shuqing Xu <shuqing.xu@uni-muenster.de>

Munich China ArthropodPalaeontology

Doctoral position (Dr. rer. nat., PhD), DFG, 65% Institutions: Bavarian State Collection of Zoology SNSB, Arthropoda varia workgroup, Munich; Faculty of Biology, Zoology, Zoomorphology of Animals, Munich; Yunnan Key Laboratory for Palaeobiology, Yunnan University, Kunming, China Besetzungsdatum: 1. Mai 2019 Ende der Bewerbungsfrist: 15. März 2019

Doctoral position Virtuelle Paläontologie der Chengjiang-Arthropoden virtual palaeontology of Chengjiang arthropods

We are seeking a PhD student to take part in the investigation of early arthropod fossils from the early Cambrian Chengjiang Lagerstätte using various imaging techniques. The project is funded by the German Research Foundation (DFG) in the framework of a joint Sino-German NSFC-DFG research project.

Around 250 fossil species have been reported from the Chengjiang Lagerstätte. Most of them are exceptionally well preserved arthropods. This precious fossil material provides a unique window to understand the origin and early evolution of this group of animals. The phylogenetic positions of many Chengjiang species, however, are under debate. The main reason is that the morphologies of those early representatives have not been examined in greater detail using various visualisation techniques. In our joint Sino-German research project, advanced imaging techniques such as micro-CT, fluorescence microscopy and low-vacuum scanning electron microscopy will be applied to extract the most information and to visualise the animals' morphologies in a 3D manner. This project will bring together arthropod specialists from both countries in a joint research effort.

The prospective PhD student should be a dedicated 'image-maker', preferably with experience in various imaging techniques and computerized image analyses, volume exploration and 3D-reconstruction using programs like VG Studio, Drishti, OsiriX, Blender, Amira and alike. The applicant does not necessarily need to have experience with all the imaging methods but is expected to gain expertise early in the course of the project. The results of the project are expected to be presented regularly at national and international conferences by the prospective PhD student as well as published in

peer-reviewed journals.

The successful candidate will be based in the work group “Arthropoda varia” at the Bavarian State Collection of Zoology, but will also use the facilities of the Zoomorphology workgroup at the LMU Biocenter Martinsried. For material reasons, the successful candidate will be required to regularly visit the collaborators in Yunnan Key Laboratory for Palaeobiology, Yunnan University, Kunming, China.

We offer: DFG-funded PhD position (65%) for 36 months; interdisciplinary research project and working environment; modern imaging equipment (macro- and microscopic).

We expect: MSc (or equivalent) in Zoology/Biology or Palaeobiology; good English communication skills (oral and written); ability to work in teams; high motivation; keen interest in evolutionary biology and life of the past.

The position is limited to 36 months with a presumed starting date of May 01, 2019.

Applications of women are strongly encouraged. Severely challenged persons will be given preference in case of otherwise equal qualifications.

Please send your application to melzer@snsb.de before March 15, 2019. The application should include CV, transcript of records, letter of motivation and the names and contact details of potential referees.

For further information contact:

Roland Melzer, Zoologische Staatssammlung Munchen Bavarian State Collection of Zoology, Munchhausenstr. 21, D-81247 Munchen; email: melzer@snsb.de, melzer@zsm.mwn.de, melzer@zi.biologie.uni-muenchen.de; phone: +49-89-8107-141; <https://www.zsm.mwn.de/sektion-mitarbeiter/roland-melzer/>

Carolin & Joachim T. Haug, LMU Munich, Biocenter Department of Biology II, Großhaderner Str. 2, 82152 Planegg-Martinsried, Germany, email: chaug@biologie.uni-muenchen.de; Phone: +49-89-2180-74132 or 74171; <http://zoomorphologie.bio.lmu.de/-personen/professoren/jhaug/index.html>, <http://www.zoology.bio.lmu.de/people/chaug/index.html>

Prof. Dr. Roland Melzer Zoologische Staatssammlung Munchen Munchhausenstr. 21, D-81247 Munchen melzer@snsb.de melzer@zsm.mwn.de melzer@zi.biologie.uni-muenchen.de

<http://www.zsm.mwn.de/art/> <http://www.zsm.mwn.de/spixiana/> [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1463-6395/homepage/EditorialBoard.html](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1463-6395/homepage/EditorialBoard.html)

“Melzer, Roland” <melzer@snsb.de>

NovaU Lisbon PrimateConservation

Subject: PhD opportunities_PrimateConservation_NovaUniversityofLisbon&ExeterUniversity

We are seeking two PhD candidates to apply for funding to the Portuguese Science and Technology Foundation (FCT) to conduct research examining primate ecology and conservation.

*Research project 1 *- The impact of ecological and anthropogenic factors on chimpanzees at Gola Rainforest National Park, Sierra Leone

*Research project 2 *- Using bioacoustics to examine animal biodiversity at Gola Rainforest National Park, Sierra Leone

Supervision:

Dr.Tânia Minhós (CRIA ' NOVA FCSH: Center for Research in Anthropology at NOVA University of Lisbon /Instituto Gulbenkian de Ciência; <http://fsh.unl.pt/-faculdade/docentes/taniarodrigues>)

Dr. Kimberley Hockings (Centre for Ecology and Conservation, University of Exeter, UK) (https://biosciences.exeter.ac.uk/staff/index.php?web_id=-Kimberley_Hockings)

*Contacts: [*taniaminhos@fsh.unl.com](mailto:taniaminhos@fsh.unl.com), K.Hockings@exeter.ac.uk

We are seeking PhD candidates to apply to the “PhD Grant Call” launched by the Portuguese Science and Technology Foundation (FCT). *The call closes on the 28th of March (5pm). *The successful candidate(s) will write and submit a grant proposal to this FCT call, working closely with both project supervisors.

*Background *

The Gola Rainforest National Park (GRNP) is a largely continuous area of Tropical Rainforest located in south-east Sierra Leone and north-west Liberia. It is one of the last remnants of the Upper Guinean Forests that once stretched across West Africa, and is an exception to the agricultural-forest mosaic that is observed across neighbouring countries. Despite civil war and the Ebola outbreak, the GRNP remains a significant biodiversity hotspot for at least 49 species of large-bodied mammal, including a diversity of primates. In Sierra Leone, the reserve is bordered by 122 forest edge communities which use forest resources and cultivate cocoa. Initial

assessments indicate heavy hunting pressure from the Liberian side.

Western chimpanzees (*Pan troglodytes verus*) are critically endangered with habitat disturbance and hunting posing a severe threat to their long-term conservation. The GRNP lies at the centre of western chimpanzee distribution, and has the potential to harbor long-term viable populations of this threatened great ape. Despite an expanse of continuous primary forest at GRNP, initial assessments suggest a low density of chimpanzees. There are no quantitative data on the ecological factors (e.g. food abundance, habitat characteristics) and anthropogenic factors (e.g. bushmeat hunting, habitat conversion) that determine chimpanzee population size and their spatio-temporal distribution at GRNP.

*Research Project Goals *

Although Research Projects 1 & 2 are complementary, they require different skillsets. We will develop specific aims and methods with the successful candidate(s), who will also be encouraged to develop their own ideas.

The overarching goal for *Research Project 1* is to estimate chimpanzee abundance and population size at GRNP, and determine the anthropogenic and ecological factors that impact the presence, distribution, ranging and grouping patterns of chimpanzees at GRNP. We anticipate this project will involve extensive on-the-ground surveys and monitoring using camera traps, as well as remote sensing analyses. Chimpanzee fecal samples will also be collected for genetic/genomic analyses. This position requires extensive experience conducting fieldwork under challenging conditions; attested ability to work alongside local communities; previous research experience with wild primates and especially with great apes will be considered favourably; experience in the proposed data collection methods and analysis. The candidate should be fluent in written and spoken English.

The goal for the *Research Project 2* is to use bioacoustics and systems-based modelling/other mathematical approaches (e.g. individual species recognition algorithms) to determine long-term wildlife (including chimpanzee) presence and distribution across GRNP. Although the candidate is expected to spend some time setting up recording devices in GRNP, there is the possibility of employing a research assistant for the fieldwork component. This is a more data-driven position and the candidate must be experienced in appropriate mathematical data analysis. The candidate should be fluent in written and spoken English.

*Requirements for the PhD position *

UCT offers a contract of up to four years with a monthly salary of €980 (tax exempt) plus payment of tuition fees.

The candidate will be based between GRNP and CRIA, in Lisbon, with the opportunity to visit Exeter University to carry part of the data analysis. The candidate must hold a

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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>

QueensU PlantEvolution

Graduate student positions in plant evolution (evolutionary genetics or evolutionary ecology) at Queens University in Kingston, Ontario

The Friedman Lab is looking for graduate students (MS or PhD). We have recently moved to Queens University (from Syracuse University). Recent and ongoing projects include a) evolutionary genomics of life history transitions, b) ecological and genetic mechanisms of responses to seasonal cues for germination and flowering, c) sexual selection and the evolution of pollen-ovule interactions, d) allocation to sexual and asexual reproduction. Our research uses a combination of field work, greenhouse studies, genomic analyses and molecular ecology to study plant adaptation and evolution. We use a variety of species, including *Mimulus guttatus* and relatives, *Ambrosia artemisiifolia* (ragweed) and *Plantago lanceolata*. Students are encouraged to develop their own research directions. For more information on the lab and our research, go to: <http://friedmanlab.ca/> Interested candidates should email me at jannice.friedman@queensu.ca. Please include a brief statement of your research interests, CV, and transcript (unofficial is fine). Because of funding restrictions, preference will be given to candidates who are Canadian citizens or landed immigrants. The application deadline is March 1 for admission for Fall 2019 (later start dates also acceptable), interested students should contact me as soon as possible.

Additional information: Friedman lab: <http://friedmanlab.ca/> Grad Studies in Biology: <https://biology.queensu.ca/academics/graduate/applying/> Biology Department: <https://biology.queensu.ca/> The Biology Department at Queen's University includes active research groups in diverse areas, including strengths in plant ecology & evolution, behavioural ecology, molecular population genetics & systematics, paleolimnology,

and plant molecular biology. The nearby Queen's University Biological Station (QUBS) includes more than 3400 ha of diverse habitat, located 60 km north of Kingston (<https://qubs.ca/>). Our large community of graduate students provides a stimulating and friendly academic environment. Graduate students are guaranteed financial support of \$24,300/year from scholarships, research stipends and teaching assistantships (2 years for an MSc, 4 years for a PhD, <https://biology.queensu.ca/academics/graduate/>).

Jannice Friedman Department of Biology Queen's University 116 Barrie St Kingston ON K7L 3N6 613.533.6394 jannice.friedman@queensu.ca
<http://friedmanlab.ca> Jannice Friedman
 <jannice.friedman@queensu.ca>

Tuebingen EvolEcolPlantMicrobiomes

The Plant Evolutionary Ecology group at the University of Tübingen in Germany offers

TWO PHD POSITIONS IN EVOLUTIONARY ECOLOGY OF PLANT MICROBIOMES

Both positions are within the framework of the newly established DFG priority programme 2125 "Deconstruction and Reconstruction of the Plant Microbiota (DECrypT)" which focuses on molecular mechanisms governing plant-microbe interactions and assembly of plant-associated microbiomes, and on their ecological and evolutionary relevance.

PhD position 1 will study the natural microbiome of *Lotus corniculatus*, and the influences of habitat, plant genotype and other drivers on its composition. The project is in collaboration with the lab of Eric Kemen at University of Tübingen, and it is associated with the Biodiversity Exploratories where field sampling will take place. The work in this project will be a combination of plant ecological experiments with microbial lab work, bioinformatic analyses of plant and microbiome sequencing data, and some field work.

PhD position 2 is about microbe-microbe interactions in *Arabidopsis thaliana*, in particular whether and how a resident microbiome prevents colonization and/or pathogenicity of *Pseudomonas* bacteria in *A. thaliana*, and how these interactions depend on plant genotype and plant species, and on environmental conditions. The project is in collaboration with the lab of Detlef Weigel

at the MPI for Developmental Biology in Tübingen. It will combine lab work with a series of controlled plant-microbe experiments.

Both PhD positions offer excellent opportunities for collaboration with the direct project partners nearby and with other groups in DECrypT through annual meetings and workshops. Both PhD students will join the Evolution and Ecology Research School Tübingen (EVEREST).

We are looking for students with a background in plant, microbial or molecular ecology who like to work in a team, explore new questions about plant microbiomes, and to learn new experimental and bioinformatic methods. Previous experience with NGS and bioinformatics is a plus in particular for PhD position 1. The successful candidates should have a MSc in biology, good analytical skills, and a good command of English. The positions are funded for 3 years. Salary is at the scale 13 TV-L (65%). Starting date is spring 2019.

The University of Tübingen is one of the oldest and most respected universities in Germany, and Tübingen a beautiful university town with a high quality of life. The Plant Evolutionary Ecology group at the University of Tübingen studies the ecology, evolution and biotic interactions of plants in a changing environment.

If you are interested in this position, please send your CV, along with a letter of motivation and the contact details of two references as a single PDF to oliver.bossdorf@uni-tuebingen.de. Deadline for applications is 31 March 2019. For questions, please use the same email address as above. The University of Tübingen seeks to raise the number of women in research and teaching and therefore urges qualified women to apply for these positions. Equally qualified applicants with disabilities will be given preference.

– Prof. Dr. Oliver Bossdorf University of Tübingen Plant Evolutionary Ecology Auf der Morgenstelle 5 D-72076 Tübingen, Germany oliver.bossdorf@uni-tuebingen.de www.uni-tuebingen.de/PlantEvoEco
oliver.bossdorf@uni-tuebingen.de

UAdelaide Australia TigerSnakeEvolution

Project Description

We are looking for an excellent PhD student to commence in 2019 on a project associated with two Aus-

tralian Research Council grants examining evolution and adaptation in tiger snakes.

The candidate should have a strong interest in evolutionary biology (including the field of molecular evolution) and the natural history of reptiles. They will join a vibrant research team of Australian and international researchers, based at the University of Adelaide, that is focused on the diversity and evolution of Australian snakes.

The candidate will be supervised by Dr. Vicki Thomson and will be based at the South Australian Regional Facility for Molecular Ecology and Evolution at the University of Adelaide.

Project summary: This project examines the geographic variation amongst tiger snakes in anatomy, ecology, and life history traits, and the relationship of these factors to venom toxins and production. The tiger snake is a unique system showing evolution/adaptation of multiple traits across island populations, including body size, head size plasticity, venom evolution, scale colouration etc. The project, which will be developed with the student, can be developed to examine island evolution in a range of traits, which could include the evolution of venom toxin genes that play critical roles in adaptation to different prey items on the islands, regulation of genes involved in plasticity of head size, evolution of genes involved in growth that results in gigantism or dwarfism etc. We have recently generated two genomes of tiger snakes, so these resources will be available to examine genes known to be involved in growth, metabolism, pigmentation etc. As part of this project, the candidate will develop skills in genomic DNA and RNAseq analyses, including next-generation sequencing and the associated bioinformatics.

Applying

Applicants should hold a first class honours degree or equivalent (MSc) and have experience in molecular genetic analyses and/or bioinformatics. Applications or enquiries should be sent by email to Vicki Thomson (*vicki.thomson@adelaide.edu.au).

Australian students should first apply for an Australian Postgraduate Award scholarship in the mid-year round (due May 31st, 2019) for commencement between July 1st and Nov 30th 2019 (see <https://www.adelaide.edu.au/graduatecentre/scholarships/research/mid-year-round/>). International students should first apply for a University of Adelaide scholarship. The next round closes on Feb 15th for commencement between July 1st and August 31st. (or April 30th 2019 for commencement before 30th Nov 2019). See: <https://www.adelaide.edu.au/>

[graduatecentre/scholarships/research-international/](https://www.adelaide.edu.au/graduatecentre/scholarships/research-international/)

Thank you. Contact: Dr. Vicki Thomson ARC DECRA Fellow Department of Ecology and Evolutionary Biology School of Biological Sciences

The University of Adelaide Benham Building North Terrace Campus South Australia 5005 AUSTRALIA Room: B.12b

Office phone: +61 8 8313 1466 Mobile: 0413 743 167 E-mail: vicki.thomson@adelaide.edu.au University website: www.adelaide.edu.au/directory/vicki.thomson Personal website: vicki-thomson.com Twitter: @Vicki_Thomson vickithmsn@gmail.com

UCalgary WithinHostEvolution

An MSc/PhD position is available in Dr. Quan Long's group in Department of Biochemistry and Molecular Biology at University of Calgary. This graduate student will focus on characterization of within-host (or within-tissue) evolution using next generation sequencing data by developing novel statistical models and computational tools. We have developed a tool that can reconstruct haplotypes from bulk sequencing, building up a unique recourse to study the selection within a host or tissue.

The models and tools will be applied to real data that are provided by various collaborators. Currently, the targeted application fields include HIV and metagenomics based on our collaboration with the Southern Alberta HIV Clinic and the Western Canadian Microbiome Center at the University of Calgary, respectively. More application fields may be developed based on the research interests of the successful candidate and the supervisor.

Upon graduation, the candidate will become an expert in population genetics, statistics, computer programming and machine learning. To start, the candidate needs to be familiar with at least one of the above techniques and is motivated to learn the others. Candidates in various backgrounds, including but not limited to biology, mathematics, physics, engineering, or computer science are welcome.

To apply, please send your CV to Dr. Quan Long (quan.long@ucalgary.ca). More information regarding this research group can be found at his websites below.

Quan Long, PhD Assistant Professor of Bioinformatics, University of Calgary, Cumming School of Medicine Dept. of Biochemistry and Molecular Biology Dept. of Medical Genetics, Dept. of Mathematics and Statistics (Adjunct) Member, Alberta Children's Hospital Research Institute OBrien Institute for Public Health

3330 Hospital Drive NW Room 1173, Health Sciences Centre Calgary, AB T2N 4N1 Canada P: 403-220-5580 | F: 403-210-9538

<https://www.ucalgary.ca/bmb/profiles/dr-quan-long>
<https://sites.google.com/site/quanlongresearch/home>
 Quan Long <quan.long@ucalgary.ca>

UCopenhagen Fungal Evolutionary Genetics

<pre> Two open PhD Positions in Evolutionary Genetics of Fungal Host-shifts

We are seeking candidates to fill two fully funded PhD positions for a period of 3 years in the Applied Evolutionary Ecology research group lead by Henrik H. De Fine Licht at the University of Copenhagen, Denmark (<https://plen.ku.dk/english/research/-organismal.biology/aee/>).

We are looking for committed and enthusiastic graduate students to work with insect-pathogenic fungal genetics, evolution and ecology. We specifically aim to explore how phenotypic plasticity and epigenetic modifications influence the evolution of fungal pathogen host shifts using insect-pathogenic fungi as a model. The project will explore gene transcription profiles and epigenetic modification of artificial fungal host-shift events created in the lab, coupled with phenotypic changes in growth and virulence of fungal pathogens. Further scientific background information can be found in the recent paper by De Fine Licht (<https://journals.plos.org/plospathogens/-article?id.1371/journal.ppat.1006961>). The successful PhD students will thus obtain competences within insect-fungus interactions, fungal genomics and transcriptomics, and applied bioinformatics. We are looking for candidates with experience in any or all of the following areas: Fungal pathogen biology, mycological techniques, molecular genetic laboratory techniques, and computational analysis of genomic sequence data. Most importantly, the successful candidates are enthusiastic, have a good grasp of evolutionary biology and are interested in host-pathogen evolution.

The project is funded by a Danish Research Council Sapere Aude Starting Grant and involves researchers at University of Copenhagen and University of Maryland (USA). The PhD students will be supervised by Associate Professor Henrik H. De Fine Licht and co-supervised by Associate Professor Nicolai V. Meyling.

To apply, please first contact Henrik H. De Fine Licht (Email: <mailto:hhdefinelight@plen.ku.dk>, include subject-line in email: "PhD student fungal host-shift genetics"). This way, Henrik H. De Fine Licht and the potential applicant can discuss the formal application and requirements (e.g. applicants with English as second language need to provide a copy of a specific English test score sheet and the documentation of academic degrees obtained (diplomas) must be in English/officially approved translation to English) before submission. The deadline for formal application is 1 April 2019, so contact Henrik H. De Fine Licht as soon as possible if you are interested.

Many thanks for your attention.

Henrik H. De Fine Licht, PhD. Associate Professor University of Copenhagen, Department of Plant and environmental Sciences, Section for Organismal Biology, Thorvaldsensvej 40, 3rd Floor, 1871 Frederiksberg, Copenhagen, Denmark Phone: +45 35320097 (office), +45 61685769 (mobile) E-mail: HHDDeFineLicht@plen.ku.dk; HenrikLicht@gmail.com

Website <https://sites.google.com/site/-henrikdefinelight/> Editorial board member BMC Evolutionary Biology: <https://-bmcevolbiol.biomedcentral.com/> Fungal Ecology: <https://www.journals.elsevier.com/fungal-ecology> Henrik Hjarvard de Fine Licht <hhdefinelight@plen.ku.dk>
 </pre>

UEdinburgh SexDetermination

Dear all,

I am looking for a talented and enthusiastic evolutionary or molecular biologist for a fully funded (ERC) 4-year PhD position in my lab <http://lauraross.bio.ed.ac.uk> at the Institute of Evolutionary Biology, University of Edinburgh.

ERC funded PhD project: Evolution in a fly with weird sex

Project background In most animals, sex is determined

by sex chromosome inheritance. For example in mammals, those embryos that inherit a Y chromosome from their fathers become male, while those that inherit a X chromosome become female. However, many species determine the sex of their offspring in rather different ways. Why these alternative means of determining sex evolved and what molecular mechanisms guide them is an important outstanding question [1]. This project focuses on understanding the evolution and molecular mechanisms of one such alternative sex determining strategy: in some flies sex is determined by genes carried by the mother not the offspring. Mothers are genetically pre-determined to either only produce daughters or only sons. Earlier studies have found that a region on the X-chromosome is responsible [2,3], but how it alters offspring sex and how it evolved remains unclear. New genomic data for the first time allow us to address these questions and increase our understanding of the diverse array of sex determining mechanism found across the tree of life.

Key research questions The aim of this project is to understand how genes expressed in the mother act to determine offspring sex and how, why and when it evolved in the evolutionary history of this group of insects.

Methodology and Training This project will combine laboratory experiments, gene expression and genome analyses. A comprehensive training programme will be provided comprising both specialist scientific training and generic transferable and professional skills. Specifically the student will undertake training in the use of molecular wet lab techniques, the analysis of sequencing data and designing large-scale experiments.

Requirements and eligibility Candidates must be highly motivated with a keen interest in evolutionary biology and genetics and a strong motivation to pursue a scientific career. Previous experience with genetic techniques, and bioinformatics and next-generation sequencing analyses would be an advantage. Only UK or EU citizens are eligible to apply.

Application Application for this position is open until the 15th of March 2019. For more information and instructions on how to apply please email me directly laura.ross@ed.ac.uk. Preferred starting date is 1st of October 2019, but this flexible (both earlier and later dates considered)

Further reading or any references referred to in the proposal [1] Bachtrog, D., et al. "Sex determination: why so many ways of doing it?." *PLoS biology* 12.7 (2014): e1001899. [2] Benatti, T.R., et al. "A neo-sex chromosome that drives postzygotic sex determination in the Hessian fly (*Mayetiola destructor*)." *Genetics* 184.3 (2010): 769-777. [3] Sánchez, L. "Sciara as an experi-

mental model for studies on the evolutionary relationships between the zygotic, maternal and environmental primary signals for sexual development." *Journal of genetics* 89.3 (2010): 325-331.

Dr Laura Ross NERC Independent research fellow Institute of Evolutionary Biology Ashworth Laboratories Charlotte Auerbach Road Edinburgh EH9 3FL

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

ROSS Laura <Laura.Ross@ed.ac.uk>

UHoheheim 2 OrchidEvolution

PhD position: Phylogeography of Mediterranean orchids

A PhD position is open for a highly motivated student with a keen interest in evolutionary and ecological questions, and a solid knowledge of plant biology, genomics and bioinformatics/statistics.

The successful candidate will be part of a team investigating the ecological, molecular and genomic basis of pollinator-mediated reproductive isolation and ecological speciation between sexually deceptive orchids of the genus *Ophrys*. The project will investigate phylogeography and demography of the *Ophrys* iricolor lineage in the Aegean. To do so, ecological and evolutionary genomic approaches will be employed using state-of-the-art NGS platforms. This will involve the integration of genomic with various phenotypic and Omics data sources. Data collection will also involve field work in natural populations. For background information on the study system, please see e.g. Schlüter & Schiestl (2008, *Trends Plant Sci.*), Schlüter & al. (2011, *PNAS*) and Sedeek & al. (2013, *PLoS One*; and 2014, *Mol. Ecol.*) and Breitkopf & al. (2015, *New Phytol.*).

The ideal candidate should be highly motivated and able to articulate her/his motivation for this project clearly. S/he should be well organised, with a thorough understanding of evolutionary biology, population genomics and molecular biology, and would ideally have an interest in speciation and plant-pollinator interactions. The candidate is expected to be proficient in statistical data analysis, with a good working knowledge of R and proven experience in bioinformatics, ideally with an ecological genomics or population genetics background. Programming/scripting skills in other languages are an advantage. Prior NGS experience, exposure to phylogenetic and phytogeographic approaches, familiarity with

demographic inference and ecological niche modelling would be a ideal. Since the student will have to prepare libraries for Illumina sequencing, laboratory skills (working with DNA) are necessary; previous field experience is a plus. Proficiency in English and good communication skills are essential, as is a valid driving licence, a completed MSc degree (or equivalent) in biology, biochemistry or a related discipline, and the proven ability to carry out research independently. German language skills are a plus.

We offer a 3-year position as a PhD student at the University of Hohenheim, Germany (salary level 50% TVL-E13), an innovative and international research university in the south of Stuttgart. The pleasant campus is close to the airport and hosts a well equipped research infrastructure, a baroque palace, and rambling parks. The successful candidate will be a member of the Institute of Botany (future Institute of Biology) and will work in a young, active and interdisciplinary environment and will have access to state-of-the-art tools and techniques. The University of Hohenheim seeks to increase the proportion of women in research and teaching and strongly encourages qualified female scientists to apply. With equal qualifications, preference will be given to candidates with disabilities.

Your application should consist of a letter of motivation (1-2 pages), your CV and (if applicable) publication list, and the names and e-mail addresses of three academic referees. The letter of motivation should detail why you are personally interested in the project, why you find it relevant and why you think you are well-suited to undertake it. Please send your application (or any requests for further information) electronically to Prof. Philipp Schlüter (sekretariat-210@uni-hohenheim.de) as a single PDF file. Screening of applications will begin on 1 April 2019 and continue until the position is filled. The position is available thereafter, but the start date is negotiable.

A PDF version of the job opening is available here: <https://bit.ly/2GUm4sV> —

PhD Position - Developmental basis of orchid floral form

A PhD position is open for a highly motivated student with a keen interest in evolutionary developmental biology of flowers, and a solid knowledge of genomics and bioinformatics/statistics.

The successful candidate will be part of a team investigating the ecological, molecular and genomic basis of pollinator-mediated reproductive isolation and ecological speciation between sexually deceptive orchids of the genus *Ophrys*. The project seeks to identify key genes underlying the developmental genetic basis of

pollinator-relevant floral traits, particularly floral form, using micro-evo-devo and ecological/evolutionary genomic approaches to floral development. In particular it will employ RNA-Seq (mRNA, small RNAs) using state of the art NGS platforms and intersect sequence variation and expression data with 3D micro-computed tomography data on floral form. For background information on the study system, please see e.g. Schluter & Schiestl

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UIdaho NativeTroutAdaptiveCapacity

GRADUATE STUDENT POSITION UNIVERSITY OF IDAHO NSF-EPSCOR GEM3 PHD RESEARCH ASSISTANTSHIP - PHENOTYPIC/GENOTYPIC DIVERSITY OF NATIVE TROUT

We seek a highly motivated student for a Ph.D. position at the University of Idaho in the recently funded NSF-EPSCoR GEM3 program (<https://www.idahogem3.org>). The program seeks to understand how genetic diversity and phenotypic plasticity affect species response to environmental change, shaping both population response and adaptive capacity. The program is focused primarily on two taxa: redband trout, a subspecies of rainbow trout, and sagebrush. These taxa are integral to aquatic and terrestrial ecosystems across the American West and are central to land-use management decisions that drive the economy of the region.

The Ph.D. student will join an interdisciplinary cohort of postdoctoral researchers and students working at scales from genomic characterization of physiological traits in trout and sagebrush, to mapping and modeling of complex ecological, evolutionary, and social-economic systems.

This advertised Ph.D. position is dedicated to redband trout. Research will focus on the phenotypic and genetic diversity of native trout populations in the Intermountain West. The student will be working as part of a collaborative research team studying adaptive capacity in native trout populations with a combination of physiology and genomics.

Qualification: MS in biological sciences or related field. Preference for a student with prior research experience in fish physiology, energetics, cardiorespiratory and/or genotype-to-phenotype analyses of fishes.

Salary: Up to \$28,000/yr plus tuition and fees

Start date: May or September of 2019

Contact/Email: Send letter of interest, curriculum vitae, GRE scores, unofficial transcripts, and the contact information for three references to Dr. Brian Small, bcsmall@uidaho.edu. Review of applications will begin immediately; for full consideration please apply before March 15, 2019.

“Small, Brian (bcsmall@uidaho.edu)”
<bcsmall@uidaho.edu>

UIdaho RedbandTrout

GRADUATE STUDENT POSITION ECOLOGICAL GENOMICS AND MODELING OF REDBAND TROUT UNIVERSITY OF IDAHO NSF-EPSCoR GEM3

We seek a highly motivated student for a Ph.D. position at the University of Idaho in the recently funded NSF-EPSCoR GEM3 program (<https://www.idahogem3.org>). The program seeks to understand how genetic diversity and phenotypic plasticity affect species response to environmental change, shaping both population response and adaptive capacity. The program is focused primarily on two taxa: redband trout, a subspecies of rainbow trout, and sagebrush. These taxa are integral to aquatic and terrestrial ecosystems across the American West and are central to land-use management decisions that drive the economy of the region. This advertised Ph.D. position is focused on redband trout.

The Ph.D. student will join an interdisciplinary cohort of postdoctoral researchers and students working at scales from genomic characterization of physiological traits in trout and sagebrush, to mapping and modeling of complex ecological, evolutionary, and social-economic systems. The Ph.D. student will have the opportunity to gain skills such as molecular population genomics, landscape genetics analysis, and agent-based and systems modeling.

The position is available to start in fall 2019 and will be co-advised by Lisette Waits (Fish & Wildlife Sciences) and Paul Hohenlohe (Biological Sciences). Students in the GEM3 program may choose from several degree

programs at UI, including Natural Resources, Bioinformatics and Computational Biology, Environmental Science or Biology.

To apply, please submit a letter of interest, curriculum vitae, GRE scores, and contact information for three references to Paul Hohenlohe (hohenlohe@uidaho.edu). Review of applications will begin immediately; for full consideration please apply before February 22, 2019.

Paul Hohenlohe Associate Professor Institute for Bioinformatics and Evolutionary Studies Departments of Biological Sciences and Statistics University of Idaho <http://hohenlohelab.github.io> “Hohenlohe, Paul (hohenlohe@uidaho.edu)” <hohenlohe@uidaho.edu>

UKonstanz 2 EcoEvolutionaryDynamics

University of Konstanz: two PhD positions Eco-Evolutionary Dynamics

Two PhD positions are available to study eco-evolutionary dynamics and environmental changes with the Aquatic Ecology and Evolution group headed by Prof. Lutz Becks at the University of Konstanz.

* Eco-evolutionary dynamics and evolutionary facilitation* Project Description: Eco-evolutionary dynamics are important for ecological and evolutionary processes as they can determine coexistence of species and their biomasses as well as local adaptation and intraspecific trait diversity and polymorphism. Little is known, however, when and how the eco-evolutionary feedback between population and trait dynamics contributes to buffering external perturbations. Combining modelling and experiments, we aim developing and testing general theory on how the interplay of ecological and trait dynamics allow systems to buffer external perturbations. We will study the effects of external perturbations on a predator of a predator-prey system with and without the possibility for eco-evolutionary feedback dynamics. Specifically, we will test the prediction that increased predator mortality and decreased predator growth rates due to an environmental change can be buffered indirectly through adaptations in the prey population. This project is in close collaboration with colleagues from the University Potsdam (Prof. Ursula Gaedke), Tokyo University (Prof. Masato Yamamichi) and Utah State University (Prof. Michael Cortez), and is part of the DFG funded priority program Dynatrait (

www.dynatrait.de/).

Relative role of viruses for phytoplankton control
 Project Description: Eco-evolutionary dynamics are important for ecological and evolutionary processes as they can determine coexistence of species and their biomasses as well as local adaptation and intraspecific trait diversity and polymorphism. This project aims to understand the relative roles of aquatic viruses and zooplankton for controlling phytoplankton dynamics in changing environments and whether and how evolution modifies competition and coexistence between viruses and zooplankton. We plan to use microcosm experiments in combination with modelling to study the importance of rapid evolutionary changes and eco-evolutionary dynamics. We are particularly interested in understanding the resilience of consumer-resource systems to eutrophication. This project is integrated in the Research Training Group R3 (www.rtg-resilience.uni-konstanz.de) and funded by the German Academic Exchange Service DAAD.

Application: Highly motivated candidates with a MSc degree in evolutionary biology or ecology are welcome to apply. Applicants should have a background in evolutionary theory or population dynamics and show an enthusiasm for basic research and ideally experience in working with plankton or microbial systems. The successful candidate should be able to communicate effectively with individuals from a wide range of disciplines. For the project Relative role of viruses for phytoplankton control please follow the incrustations under <https://www.rtg-resilience.uni-konstanz.de/about-us/about-us/open-positions/>. Application will be reviewed starting March 1st 2019.

Location: The Aquatic Ecology and Evolution group recently started at the Limnological Institute of the University Konstanz. The collaborative research environment is highly integrative, very international, and operates in English. Further information on researchers and research in the group can be obtained here: <https://www.limnologie.uni-konstanz.de/en/ag-becks/> or by contacting Lutz Becks (lutz.becks@uni-konstanz.de). Konstanz is a very beautiful and pleasant place to live as it borders the third largest lake in Central Europe and lies at the foothills of the Alps. The University of Konstanz is an equal opportunity employer and is rated as one of the best universities in Germany.

– Prof. Dr. Lutz Becks Limnological Institute University of Konstanz Mainaustraße 252 78464 Konstanz / Egg Germany

Mail: lutz.becks@uni-konstanz.de Phone: 07531 88 2828

Lutz Becks <lutz.becks@uni-konstanz.de>

UNewOrleans HumanEvolAndTEs

Graduate positions (M.Sc. and Ph.D.) are available in the Atallah Lab (<https://sites.google.com/view/atallahlab>) in the Biological Sciences Department at the University of New Orleans (UNO). We are currently looking for students interested in developing computational models of the role of transposable elements in evolution and human disease.

In recent years, evidence has accumulated that transposable elements (TEs) play important roles in both evolutionary processes (such as changes in gene regulation) and the progression of diseases such as cancer. We are developing computer simulations of the activity of TEs in somatic cell populations and the germline. Students interested in this project should be familiar with shell scripting and computer programming.

Interested students should send an email to jatalah@uno.edu. Please include a brief description of your background (or a CV or resume), and mention why you're excited about this project. The University of New Orleans is a public research university and part of the University of Louisiana system. New Orleans is a diverse and historic city with a vibrant culture.

Joel Atallah, Ph.D. Assistant professor 202 Biology Building Department of Biological Sciences University of New Orleans New Orleans, LA 70148 (504) 280-7057 <https://sites.google.com/view/atallahlab> jatalah@uno.edu

UNorthDakota AncientPaleoecology

U. North Dakota. Ancient paleoecology.

The Laboratory of Human and Forensic Genetics at the University of North Dakota (www.und.edu) is inviting applications from highly motivated students who pursue a PhD degree.

A student will be engaged in a project on computational analysis of big oral and environmental microbiome data collected from diverse organisms across the American Midwest, Eastern Europe, and Madagascar. This cross-disciplinary project represents an opportunity to get

intensive hands-on training in the methods of ancient DNA analyses including next-generation sequencing, computational biology and statistical modelling.

Candidates should demonstrate motivation for hard laboratory work and strong interest in genomics and computational biology. Preference will be given to candidates with a proven record of computational analysis and bioinformatics skills. Additional experience in high-throughput sequencing technologies is a plus. If you are interested, you need to apply to the University of North Dakota Biology Graduate Program using the regular procedure. Requirements and How to Apply procedure can be found in the UND Biology Graduate School website:

<https://und.edu/programs/biology-phd/-requirements.html> The additional information can be also found in the Biology Department website:

<https://arts-sciences.und.edu/academics/biology/> The position starts in August 2019. To receive full consideration, applications and required materials should be received by the Biology Graduate Program by February 15, 2019.

Potential graduate students are strongly encouraged to make contact with Dr. Igor Ovchinnikov.

Contact information:

Dr. Igor Ovchinnikov Associate Professor Lab. of Human and Forensic Genetics Department of Biology Forensic Science Program University of North Dakota

Email: igor.ovtchinnikov@und.edu

Thank you.

Igor Ovchinnikov

Dr. Igor Ovchinnikov Associate Professor Lab. of Human and Forensic Genetics Department of Biology Forensic Science Program University of North Dakota 10 Cornell Street Grand Forks, ND 58202 Phone (office): (701) 777-4471 Email: igor.ovtchinnikov@und.edu

“Ovtchinnikov, Igor” <igor.ovtchinnikov@und.edu>

UOtago EvolutionSensoryPerception

PhD position in evolutionary physiology at the University of Otago

Michael Garratt at the University of Otago is recruiting a PhD student to work in conjunction with a Marsden

funded project, addressing the role of sensory perception in control of mammalian life-history.

Project Description: Life history theory is built on the assumption that there are trade-offs between life-history traits, such as between early and late-life reproduction, and between reproduction and lifespan. How these trade-offs are mediated is poorly understood. The current PhD will test new hypotheses suggesting sensory perception is an important trigger of life-history investment and aging, focusing on the role of olfaction in the mouse as a model system. The project will make use of mice with genetic deficits that limit the ability to detect certain pheromones, in addition to conducting social manipulations where the perception of mates and competitors is altered. The candidate will work in conjunction with a funded Marsden project, and there will be scope to shape the project in relation to the applicant's interests. This could include uncovering novel components of life history that are shaped by sensory signals, exploring trade-offs between early and late-life traits, and identification of neuroendocrine signals that link sensory cues to altered life-history investment.

The student will be under supervision of Dr. Michael Garratt, whose interests lie in understanding the links between reproduction and aging. The Department of Anatomy at the University of Otago has diverse and complementary research interests, including research groups focusing on reproduction, genomics, development, neuroscience, neuroendocrinology, clinical anatomy and biological anthropology. The University of Otago is located in the beautiful town of Dunedin in the South Island of New Zealand.

Interested applicants should contact Michael Garratt, including their CV, academic transcript and evidence of English language test if required. PhD Scholarships are available to international students, but students must apply and be awarded a doctoral scholarship from the Department of Anatomy or University of Otago scholarship programs. These scholarships provide a tuition waiver and a tax-free stipend.

Dr. Michael Garratt

Lecturer Department of Anatomy School of Biomedical Sciences University of Otago New Zealand

Email: mike.garratt@otago.ac.nz <https://www.otago.ac.nz/anatomy/people/staff/profile/-index.html?id=2975> <https://scholar.google.co.nz/citations?hl=en&user=Q3aOKlgAAAAJ>
mike.garratt@otago.ac.nz

UppsalaU Butterfly Evolutionary Genetics

PhD-position in evolutionary genetics at Uppsala University

A 4-year PhD-position in evolutionary genetics is available in the research group of Dr. Niclas Backström at the Department of Evolutionary Biology in Uppsala, Sweden. Starting date in May 2019 or as agreed upon. The successful applicant will work with population genomic analysis using whole-genome re-sequencing data from several populations and species, gene expression analysis and management of butterfly populations for eg. crossing and linkage mapping experiments.

Project description: Getting detailed understanding about mechanisms of reproductive isolation between diverging lineages is one of the major challenges in evolutionary biology. In the research group, we use wood white butterflies as a model system and combine experimental work with bioinformatic analyses to investigate the genetic underpinnings of barriers to gene flow and traits that may play a role in species recognition, mate choice and local adaptation. The project will mostly involve bioinformatic handling of large data sets. The main focus will be on understanding the role of sex-chromosomes in speciation and adaptation and investigating the evolutionary consequences of variation in recombination rate across populations with distinct karyotypes and between chromosomal regions. Depending on the personal interests and qualifications of the candidate, the project can also be extended to address other questions in molecular evolution / evolutionary genomics. At a later stage, the candidate may also choose to participate in other projects that are currently developing in the lab. For any further questions, please visit the lab website (<http://www.ieg.uu.se/evolutionary-biology/backstrom/>) or contact Niclas Backström (email: [niclas.backstrom\[at\]ebc.uu.se](mailto:niclas.backstrom[at]ebc.uu.se)).

The Evolutionary Biology Centre (<http://www.ebc.uu.se/?languageId=1>) is one of the world's leading research institutions in evolutionary biology. It is part of Uppsala University, which has been ranked very high among all European Universities in the subject of evolutionary biology. Our group is part of the Program of Evolutionary Biology that excels in many aspects of genetics and evolution and offers an inspiring international atmosphere.

There are ample opportunities for interaction with PhD-students, PostDocs and researchers working on related topics. We are tightly linked to the Science for Life Laboratory (<https://www.scilifelab.se/>) and have access to advanced laboratory infrastructure, high performance computing resources and bioinformatics support.

If you are enthusiastic about evolutionary biology, have a good understanding of population genetics and evolution theory, and/or are skilled in bioinformatics you are most welcome to apply for the position. To apply you must hold a master of science (or your national equivalent) in Biology or a related field. Bioinformatic skills will be necessary to carry out the projects. Candidates must be able to express themselves fluently in spoken as well as written English.

Position: The graduate program covers four years of full-time study. The position can be combined with teaching or other duties at the department (maximum 20%), which prolongs the employment with the corresponding time. The salary will be set according to local agreements. More information about postgraduate studies at Uppsala University is available at <http://www.teknat.uu.se/education/postgraduate/>. Rules governing PhD candidates are set out in the Higher Education Ordinance Chapter 5, §§1-7 and in Uppsala university's rules and guidelines.

Application: The application should include (1) A cover letter describing your research interests, relevant previous experience and your specific motivation for the position, (2) a short summary of your Master's (or comparable) studies, (3) a CV including potential previous publications, (4) contact details of at least two scientific professionals, and, (5) attested copies of your academic degree(s). The application should be written in English.

Uppsala University aims for gender balance and diversity in all activities in order to achieve a higher quality at all levels of the organization. We therefore welcome applicants of any gender and with different birth background, functionality and life experience.

For further information about the position please contact: Niclas Backström, [niclas.backstrom\[at\]ebc.uu.se](mailto:niclas.backstrom[at]ebc.uu.se), +46-18-471 6415.

You are welcome to submit your application no later than March 20, 2019, UFV-PA 2019/631. Formal applications should be made using our online application form:

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mcmaster.ca/~brian/evoludir.html

UppsalaU EvolutionaryGenetics

PhD-position in evolutionary genetics at Uppsala University

A 4-year PhD-position in evolutionary genetics is available in the research group of Dr. Arild Husby at the Evolutionary Biology, Department of Ecology and Genetics in Uppsala, Sweden. Starting date in April 2019 or as agreed upon. The successful applicant will work with large scale genomic data from a house sparrow metapopulation in Norway (whole genome resequencing data, 4000 SNP genotyped individuals, extensive phenotypic database) to understand genomics of local adaptation.

Project description: The candidate will use phenotypic and genomic data from a long-term study population of a house sparrow metapopulation (>3000 individuals genotyped on a 200K SNP array and >30 individuals with whole genome sequences combined with a very extensive phenotypic database) to look for signs of selection in the genome, estimate demographic patterns and examine structural variation. A central goal will be to understand the connection between genetic variants linked to phenotypic traits and their patterns of selection in the genome. The project is in collaboration with the Centre of Biodiversity Dynamics (CBD) at NTNU, Norway and the candidate is expected to spend periods of time at CBD and also take part in fieldwork.

For further information about research going on in the lab, please visit the lab website (<http://www.ieg.uu.se/evolutionary-biology/husby-lab/>) or contact Arild Husby (email: arild.husby@ebc.uu.se).

The Evolutionary Biology Centre (<http://www.ebc.uu.se/?languageId=1>) is one of the world's leading research institutions in evolutionary biology. It is part of Uppsala University, which has been ranked very high among all European Universities in the subject of evolutionary biology. Our group is part of the Program of Evolutionary Biology that excels in many aspects of genetics and evolution and offers an inspiring international atmosphere. There are ample opportunities for interaction with PhD-students, PostDocs and researchers working on related topics. We are tightly linked to the Science for Life Laboratory (<https://www.scilifelab.se/>) and

have access to advanced laboratory infrastructure, high performance computing resources and bioinformatics support.

If you are enthusiastic about evolutionary biology, have a good understanding of population genetics and evolution theory, and/or are skilled in bioinformatics you are most welcome to apply for the position. To apply you must hold a master of science (or your national equivalent) in Biology or a related field. Bioinformatic skills will be necessary to carry out the projects. Candidates must be able to express themselves fluently in spoken as well as written English.

Position: The graduate program covers four years of full-time study. The position can be combined with teaching or other duties at the department (maximum 20%), which prolongs the employment with the corresponding time. The salary will be set according to local agreements. More information about postgraduate studies at Uppsala University is available at <http://www.teknat.uu.se/education/postgraduate/>. Rules governing PhD candidates are set out in the Higher Education Ordinance Chapter 5, §§1-7 and in Uppsala university's rules and guidelines.

Application: The application should include (1) A cover letter describing your research interests, relevant previous experience and your specific motivation for the position, (2) a short summary of your Master's (or comparable) studies, (3) a CV including potential previous publications, (4) contact details of at least two scientific professionals, and, (5) attested copies of your academic degree(s). The application should be written in English.

Uppsala University aims for gender balance and diversity in all activities in order to achieve a higher quality at all levels of the organization. We therefore welcome applicants of any gender and with different birth background, functionality and life experience.

You are welcome to submit your application no later than March 20, 2019, UFV-PA 2019/635. Formal applications should be made using our online application form: https://uu.varbi.com/en/what:job/jobID:254153/?_ga=2.250054720.774257594.1551174983-1035849020.1551174983 Arild Husby Department of Ecology and Genetics (Evolutionary Biology) Norbyvägen 18D, Uppsala University, SE-75236 Uppsala, Sweden

labpage:<http://www.ieg.uu.se/evolutionary-biology-research/husby-lab> & <https://husbylab.wordpress.com>

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

UTasmania AntarcticSeabirdGenetics

Project description:

Knowledge of species' responses to past climate change can be used to predict their resilience to current and projected climate change. However, species have varying sensitivity to environmental stressors. Therefore, to identify which species track the impact of environmental change in the past, with a view to monitoring in the present and predicting the future, we must assess a variety of taxa.

This project addresses a key knowledge gap for Antarctic biota by genetically assessing responses of six flighted seabird species to past climate change, and combining these with inferences already made for penguins and seals in a meta-analysis. Knowledge of the spatial distribution of genetic variation can also guide the selection of Antarctic Specially Protected Areas through the identification of populations that are demographically-independent, represent long-term refugia, or contain genetic (and potentially taxonomic) novelty.

This study will exploit existing tissue resources using genomic SNP (ddRAD seq) data to address these questions.

Applying: We seek a PhD student to conduct this research at the University of Tasmania. The student will be supervised by Assoc. Prof. Chris Burrridge (UTas) and Drs Barbara Wienecke and Louise Emmerson (Australian Antarctic Division, also located in Tasmania).

The applicant will need a track record consistent with the ability to attract a PhD scholarship covering both fees and living expenses. It is most likely that the student will apply for scholarship support from the University of Tasmania, but candidates able to source scholarship support externally will be viewed favourably.

Applicants must already have been awarded a Masters research degree or first-class Honours degree. Publication(s) in a relevant field significantly increases the competitiveness of applicants.

Applicants must be able to demonstrate strong research and analytical skills, including the implementation and interpretation of population genetics analyses.

Enquiries should be sent by e-mail to chris.burrridge@utas.edu.au

Thank you

Chris Burrridge | Associate Professor, Molecular Ecology & Evolution School of Natural Sciences | University of Tasmania | Private Bag 55 | Hobart | Tasmania 7001 | Australia Room 320a Life Sciences Building | Ph +61 3 6226 7653 | Fax +61 3 6226 2698 |

https://rmdb.research.utas.edu.au/public/-rmdb/q/individ_detail_warp_trans/3975#research-tab-5 <http://scholar.google.com.au/citations?user=LYH8ZYAAAAJ&hl=en> evogentas.org

chris.burrridge@utas.edu.au

UTurku EvolutionAndResourceManagement

Doctoral candidate position in the project "Cooperation, Evolution and Resource Management" (URL of this announcement: <https://luhaproject.wordpress.com/-2019/02/01/four-year-doctoral-candidate-position-second-call/>)

Our project funded by the Kone Foundation tests the applicability of evolutionary models to the study of human decision-making processes in the context of natural resource management. Our approach is interdisciplinary, and combines research questions and methodologies from both social and natural sciences. An important methodology shared by the two disciplines is the game theoretical approach. In the global scale there has been a shift from the Tragedy of Commons approach to the Drama of Commons approach with a more optimistic view on the capacity of local stakeholders to solve problems related to common pool resource management. We are mainly interested to find out in what circumstances a stable local common pool resource management might succeed. Our empirical focus will be on the management of Finnish fish and game resources, reindeer pastures and common forests. A more theoretical focus is finding the key differences and commonalities between the theories used in different fields.

Duties: We recruit a doctoral candidate who would cooperate in data collection, statistical analyses and writing articles with the aim to produce an article-based PhD thesis. Data will be extracted from the long-term datasets collected by Finnish national research institutions (mainly Statistics Finland, Natural Resources

Institute Finland, Finnish Environment Institute, The Finnish Wildlife Agency, Finnish Forest Centre, Reindeer Herders' Association) and their local offices. For specific research questions interview studies will be performed. An important theoretical framework throughout the project will be the Social Ecological Systems (SES) theory developed by Elinor Ostrom and her co-researchers.

Qualifications: Essential qualifications are: (1) An MSc or equivalent degree, for example in (evolutionary) biology, economy or some of the social sciences, (2) Experience of quantitative methods and statistics, (3) A genuine and preferably documented interest in combining (evolutionary) biology with a wider societal perspective. Desired qualifications are: (a) Strong statistical skills, (b) Experience in working with public databases, (c) A willingness to learn new methodologies or approaches also from other disciplines. Knowledge of Finnish is not a requirement but is considered an asset as most of the data will be sources in Finnish.

Place of work: University of Turku, Finland

Work group: LuHa - Jon Brommer, Timo Vuorisalo (University of Turku), Lauri Rapeli (Sbo Akademi University), Patrik Karell (NOVIA University of Applied Science), Heikki Helanterä (University of Oulu)

Form of employment: The doctoral candidate recruited for this position will be paid a non-negotiable grant of €28,800/year during four years, for which approximately 14% is to be paid as compulsory social charges (see <https://www.mela.fi/en/grant-and-scholarship-recipient/premiums-and-invoicing/myel-premium-amount>) and of which some part is taxed (see www.vero.fi).

Extent: 100 %

Starting date: Preferably April 1, 2019 (negotiable)

Application: No later than 28 February 2019. The application is electronic. The link <https://link.webropolsurveys.com/Participation/Public/-89f44ebc-1513-47d9-99aa-d56a1499470d?displayId=-Fin1697657> will take you to a form where you are asked to fill in your contact information, provide names and E-mail addresses of two persons who can provide a reference for you and where you can attach your diploma, CV, and a letter of motivation where you describe why you would be a suitable candidate for the position. Your application will be temporarily stored for the sole purpose of recruiting the position advertised here; it will not be shared with others than the LuHa workgroup members and will be permanently deleted after recruitment is concluded.

Contact person: Associate professor Jon Brommer (jon.brommer@utu.fi), University of Turku; Associate professor Heikki Helanterä (heikki.helantera@oulu.fi), University of Oulu.

Jon Brommer <jon.brommer@utu.fi>

UWindsor MicrobeEvolution

Ph.D. Position Molecular Microbial Ecology The Heath Research Group at the Great Lakes Institute for Environmental Research (GLIER), University of Windsor is seeking a Ph.D. student to lead a project investigating the microbial communities associated with sediment-water nutrient flux processes. We specifically want to target gene transcription profiles associated with nutrient flux variation across multiple environmental stressors and develop early warning indicators of nutrient flux based on multigene transcriptional profiles. The student would thus be trained in fieldwork, microbial genomics and transcriptomics and advanced bioinformatics. The student will work closely with Industry partners, the Essex Region Conservation Authority and Government laboratories (Environment and Climate Change Canada and Agriculture and Agri-Food Canada). GLIER is an internationally recognized interdisciplinary research institute with advanced genomics and microbial infrastructure situated on the shores of the Detroit River.

Requirements: Experience in any of Microbiology, Biochemistry, Chemistry, Environmental Sciences and Computer Science, with an interest in microbial ecology and evolution. Experience in bioinformatics (especially metagenomics and metatranscriptomics), mathematical modeling and/or molecular biology are strong assets but not absolute requirements. Canadian citizens and landed immigrants will be given first consideration. The most important qualifications are strong motivation to learn new things and solve problems and willingness to participate in research expeditions and to pursue research in an interdisciplinary framework.

To apply, please send an email (Subject: Ph.D. student Molecular Microbial Ecology) to Dr. Daniel Heath (dheath@uwindsor.ca) and Dr. Subba Rao Chaganti (chaganti@uwindsor.ca) with a cover letter describing previous research experience and interests, a C.V., and contact information for two to three references.

Application deadline: open until filled

Start date: ASAP

Location: Great Lakes Institute for Environmental Research, University of Windsor, Windsor, ON, Canada

Vienna PopulationGenetics

The Vienna Graduate School of Population Genetics is looking for PhD students: apply by Feb 14, 2019!

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

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

Topics include: - Complex trait dissection in conifers. - Contribution of transposable elements to adaptation during experimental evolution. - Detection of adaptive gene introgression. - Efficient detection of variants of polygenic adaptation in *Drosophila* experimental evolution. - Evolution of gene expression. - Footprints of polygenic adaptation. - Functional characterization of adaptive QTLs. - Functional characterization of beneficial alleles in **Drosophila**. - Historical demography in horses. - Incipient speciation during adaptation to a new environment. - Inference of selection parameters using whole genome data. - Long term dynamics of transposable element invasions. - Microbiome evolution in *Drosophila*. - Multi-measurement experimental evolution: How to combine evidence from different sources? - Polygenic adaptation: The roles of pleiotropy and epistasis. - Population genomic footprints and drivers of repeated trait shifts during adaptive radiation. - Sequence diversity in mammalian Y chromosomes. - The genetics of local adaptation in *Arabidopsis thaliana*. - The molecular basis of recurring, multi-trait adaptation to substrate. - The role of a nascent sex chromosome on interspecific patterns of allele sharing. - The sources of variation fueling adaptive radiation after long-distance dispersal. - Transposon polymorphism in *Arabidopsis thaliana*. - Within-species consequences of genomic interactions in ecologically important species.

Only complete applications (application form, CV, motivation letter, university certificates, indication of the two

preferred topics in a single pdf) received by February 14, 2019 will be considered. Two letters of recommendation need to be sent directly by the referees. Accepted PhD students will receive a monthly salary based on currently EUR 2.112 before tax according to the regulations of the Austrian Science Fund (FWF).

All information about the about available topics, the training program and the application procedure can be found at www.popgen-vienna.at – Dr. Julia Hosp Vienna Graduate School of Population Genetics Coordinator

www.popgen-vienna.at <https://twitter.com/PopGenViennaPhD> c/o Institut für Populationsgenetik Veterinärmedizinische Universität Wien (Vetmeduni Vienna) Veterinärplatz 1, 1210 Wien

T +43 1 25077 4338 F +43 1 25077 4390

<http://www.vetmeduni.ac.at/en/population-genetics/>
<https://twitter.com/PopGenVienna> Julia Hosp
 <Julia.Hosp@vetmeduni.ac.at>

WageningenU 2 ComparativeGenomics

WageningenU.ComparativeGenomicsFish

Dear All,

I would like to draw your attention to an exciting PhD project on comparative genomics of fish, at Wageningen University, The Netherlands.

(text and link to apply available online: <https://www.wur.nl/en/Jobs/Vacancies/Show/PhD-student-in-the-area-of-functional-and-comparative-genomics-in-fish-health-and-immunology.htm>)

We are looking for an enthusiastic PhD candidate, with a clear interest in one or more of the following research fields: epigenomics/genomics, bioinformatics, health and immunology, and comparative biology. The PhD will be employed at a newly funded H2020 project AQUA-FAANG, aiming to support the global Functional Annotation of ANimal Genomes (FAANG) consortium, with a focus on domesticated fish species. How are traits of animals encoded in their genomes, and how is that code triggered to become active? To help answer those questions, AQUA-FAANG aims to generate a wealth of functional genomic (e.g. expression) and epigenomic (e.g. chromatin structure) data from six fish species, including Atlantic salmon, sea bass, and

common carp, for different organs and developmental stages. Special emphasis lies on fish health, as this is a major concern for economic loss and animal welfare in aquaculture. Cells and tissues involved in immune response can be easily studied, and easily triggered, and therefore serve as a good biological 'model trait'. Since there are so many economically important fish species, a comparative genomic approach will be applied to identify common themes in the functional genomics of fish health, such as how immune responses are regulated across species. Special emphasis will lie on the role of whole genome duplications, that have occurred several times throughout the evolution of the bony fishes.

All candidates should meet the following requirements: A Master's degree in a relevant biological field (genomics/epigenomics, bioinformatics, computational biology, comparative biology, immunology, or evolutionary biology), or in a quantitative field (statistics, data analytics).

The candidate should have:

- A proven affinity for computational analysis (e.g. experience with Python, R, Linux).
- A strong interest in functional genomic and comparative/evolutionary biological analysis
- A strong interest in fundamental and applied research.
- Be creative and innovative.
- Good organisational and (written and spoken) communication skills in English, as well as a proven ability to collaborate with others.
- Willingness to travel internationally, to attend international project meetings and conferences and visit other institutes.

We offer you a challenging job for a period of 4 years at an international leading organization. The position is available within Wageningen University & Research at the Aquaculture and Fisheries group, and Animal Breeding and Genomics group, both at Wageningen Campus. The organization has good and flexible employment conditions, including good education and training facilities for PhD students. Employment basis: Appointment for 38 hours per week for a period of 1.5 years with extension of 2.5 years after successful evaluation.. The gross salary is in accordance to the Collective Labour Agreement of Wageningen University and first year salary is 2.266, per month rising to 2.879, in the fourth year.

Additional information about the vacancy can be obtained from: Dr Hendrik-Jan Megens (hendrik-jan.megens@wur.nl) +31317482469 or prof. Geert Wiegertjes (geert.wiegertjes@wur.nl) +31317482732.

For further information about working at Wageningen University & Research, take a look at <http://www.wur.nl/en/Jobs.htm> Closing date for applications: 08-02-2019

- H-J Megens, PhD, - Assistant Professor - Animal Breeding & Genomics, - Wageningen University, - Wageningen, The Netherlands - LinkedIn: <http://nl.linkedin.com/pub/hendrik-jan-megens/24/536/2b8> - Google Scholar: <http://scholar.google.nl/citations?user=kGUIXOYAAAAAJ> —

WageningenU.ComparativeEpiGenomics

Dear All,

I would like to draw your attention to an exciting PhD project on evolutionary and comparative epigenomics, at Wageningen University, The Netherlands.

(text and link to apply available online: <https://www.wur.nl/en/Jobs/Vacancies/Show/PhD-student-in-the-area-of-epigenomics-of-chicken-and-pig.htm>)

We are looking for an enthusiastic PhD candidate, with a clear interest in one or more of the following research fields: epigenomics/genomics,

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WageningenU EvolAntibioticResistance

PhD student antimicrobial resistance The organisation: Wageningen Bioveterinary Research (WBVR) is one of the research institutes of the Animal Sciences Group of Wageningen University & Research. Research is conducted here on health and infectious diseases through diagnostics, monitoring programmes, fundamental research, clinical studies, epidemiology and risk management. WBVR is appointed as National Reference Laboratory for antimicrobial resistance in animals and is an active research group within the AMR field. Ongoing monitoring activities are combined with a variety of research projects. The group consists of two senior research scientists, one junior scientist and four technicians all working closely together to cover the different tasks and disciplines.

About the PhD project: Antimicrobial resistance (AMR) is a topic of great concern in both veterinary and human medicine. Extended-spectrum beta-lactamase (ESBL) producing bacteria have emerged globally in livestock and as a consequence, animals (especially poultry) are

considered a putative source of ESBLs for humans. Although the actual attribution of AMR from livestock to public health remains a subject of debate, it is desirable to reduce ESBLs in livestock. Strategies to achieve this are a topic of current research. Broilers are often colonised by ESBL-producing bacteria even in the absence of selective pressure. It is hypothesised that animals are more at risk for colonisation when the gut microbiome is still under development. ESBLs and other AMR genes are often encoded on plasmids that are transferred between bacteria resulting in the spread of resistance within a population.

The aim of the PhD project is to study the microbiome of broilers at farms throughout the production cycle to determine the optimal age for implementing intervention strategies and to develop novel intervention strategies.

To fill the gap between lab tests and animal experiments, an *in vitro* chicken gut model will be set up and tested in collaboration with colleagues at the Animal and Plant Health Agency (APHA, UK). The model simulates the microbiome of broilers in a laboratory environment and will be used to study intervention strategies to prevent colonisation of ESBL-producing bacteria. These strategies will include various feed additives such as organic acids, prebiotics and probiotics. Furthermore, the model will be used to test intervention strategies to prevent the transfer of AMR-plasmids within the microbiome.

Data gained from both the animal microbiome and the *in vitro* gut model will aid in our understanding of the dissemination of AMR in broiler farms with the aim of reducing AMR prevalence in livestock, ultimately reducing the risk of AMR spreading from livestock to the human population.

The project will be carried out in close collaboration with Prof. Arjan de Visser, Laboratory of Genetics, Wageningen University, who will act as academic promotor.

Requirements

Meet the requirements of Wageningen University for admittance as PhD (appropriate MSc and English skills).

MSc in Microbiology, Molecular Biology, Evolutionary Genetics, Biotechnology or Bioinformatics.

An interest for AMR in relationship with livestock husbandry and the ecology of the microbiome.

An interest in both fundamental and applied research.

Good organisational and (written and spoken) communication skills in English, as well as a proven ability to collaborate with others.

Willingness to travel internationally, to attend international project meetings and conferences and visit other institutes.

We offer you a challenging project for a period of 4 years within one of the leading research groups in Europe on antimicrobial resistance in livestock. The position is available within Wageningen University & Research at Wageningen Bioveterinary Research in Lelystad.

The organization has good and flexible employment conditions, including good education and training facilities for PhD students at the Wageningen Graduate Schools.

Employment basis: Appointment for 36 hours per week for a period of 1.5 years with extension of 2.5 years after successful evaluation.

More information For information please contact Mike Brouwer (mike.brouwer@wur.nl) or Arjan de Visser (arjan.devisser@wur.nl).

You can apply until February 27th. Please do not e-mail directly to the persons mentioned above, but use the website of Wageningen University & Research: <http://www.wur.nl/nl/Werken-bij/Vacatures.htm>

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ArizonaStateU NeonCollectionsManager

Collections Manager, NEON Biorepository - Environmental & Zoological Samples (Research Specialist)

The Arizona State University (ASU) School of Life Sciences is seeking a Collections Manager for the National Ecological Observatory Network Biorepository (NEON - <https://www.neonscience.org/>). This project is expected to run for 30 years. For each project year, the NEON Biorepository at ASU will receive, process, and make available for research an average of 100,000 biodiversity occurrences sampled at more than 80 sites across the United States. We will facilitate this by creating a data portal to support occurrence discovery and tracking of sample transactions and usage statistics. The collections manager will play a critical role in coordinating these tasks by focusing on a diverse suite of environmental and zoological samples that include: thousands of frozen and room temperature-preserved soil samples, wet depositions from terrestrial sites, microbial samples; and furthermore, an array of zoological samples - primarily arthropods (insects, arachnids) and vertebrate samples or specimens (e.g., mammals, fish). The position is therefore relatively broad in scope, and will complement existing positions focused primarily on managing cryo and invertebrate collections. Candidates who consider themselves capable of handling

the environmental samples and also have a zoological (in-/vertebrate) concentration that would complement existing strengths of the NEON Biorepository team, are strongly encouraged to apply. An ability to develop new data products to leverage the research potential of environmental/zoological NEON Biorepository samples with the greater community is highly desired. Inquiries can be directed to nico.franz@asu.edu.

Envisioned start date: April 1st, 2019.

For more position details and to apply,

1. Go to <https://cfo.asu.edu/applicant>
2. Click on "External Staff"
3. Search for "49069BR" (or "NEON")

Nico M. Franz, Ph.D. School of Life Sciences Arizona State University E-mail: nico.franz@asu.edu
Web: <https://isearch.asu.edu/profile/1804402>
nico.franz@asu.edu

BotanicGarden Chicago 2 Conservation

Chicago Botanic Garden seeks to hire two conservation scientists (Landscape Ecology, Restoration Ecology, or Ecophysiology preferred) at the assistant scientist rank for our Plant Biology and Conservation Department (<https://www.chicagobotanic.org/research>).

Contact Kayri Havens at khavens@chicagobotanic.org

with any questions.

Title: Conservation Scientist (2 positions)

Position Overview: We seek to hire two conservation scientists at the assistant scientist rank in our Plant Biology and Conservation Department (<https://www.chicagobotanic.org/research>). We are particularly interested in applicants with expertise in one or more of the following: Landscape Ecology, Restoration Ecology, and Ecophysiology, but other conservation disciplines will be considered. Candidates who focus on wetland or aquatic systems, or seed-based questions are especially encouraged to apply. In addition to conducting research, both positions will serve as faculty in our joint Plant Biology and Conservation graduate program with Northwestern University, and undertake outreach and service activities. These are full time, career-track positions. The successful candidates will join a group of enthusiastic scientists focused on addressing key conservation challenges. Start dates are flexible.

About us: The Chicago Botanic Garden's Plant Science and Conservation program is a global leader in plant-based research, education, and engagement to sustain and enrich life. The Garden's mission is grounded in the belief that caring for gardens and natural areas is fundamentally important to the well-being of everyone. We strive to make the Garden and all its programs available and accessible to people of all ages, backgrounds and abilities. We value diversity in all its forms and at every level of our organization - board, staff, volunteers, and vendors. Through the diversity of backgrounds, perspectives and experience, the Garden is more effectively able to create extraordinary and welcoming experiences for our increasingly diverse audiences. We are committed to ensuring a sense of belonging to every individual we encounter, regardless of age, race, gender, ethnicity, religion, sexual orientation, physical ability, intellectual ability, or economic status.

Responsibilities: 1. RESEARCH: Conduct research that has conservation or restoration implications. Successfully obtain funding for research. Disseminate results through scientific publications and broader communication venues to policy makers, land managers, and the public. 2. TRAINING: Mentor students from diverse backgrounds at a variety of levels from high school to Ph.D. This will include serving as advisor or committee member for graduate students in our Plant Biology and Conservation program with Northwestern University (<https://www.plantbiology.northwestern.edu/>), supporting the Science Career Continuum College First mentoring program for high school students (<https://www.chicagobotanic.org/collegefirst>), and working

with undergraduate students from Northwestern University and in our NSF-REU Site program (<https://pbcinternships.org/>) over the summer. Teaching an upper level undergraduate or graduate level course at Northwestern University in the candidate's area of expertise may be possible. 3. INSTITUTIONAL SERVICE: Contribute to Garden and departmental initiatives. These can include management of the REU intern program, managing seed or GIS labs, public-facing programs such as our Science Festival, or other Garden initiatives depending on candidate's interest and aptitude. 4. OUTREACH: Contribute to outreach, citizen science, and other engagement activities. Help synthesize research, communicate science, and develop policy and land management recommendations. Work collaboratively with department faculty, and other Garden departments (Education, Horticulture, Communications, and Visitor Services). Develop collaborations with other regional conservation institutions and agencies.

Key Cooperative Relationships: Botanic Garden staff, students, and volunteers; scientific community; federal, state, and regional land managers; conservation, stewardship, and restoration groups; elected officials and other conservation stakeholders.

Qualifications: Ph.D. in ecology, botany, biology, or equivalent with appropriate experience. Strong quantitative skills; meta-analysis skills desired. Excellent communication skills. Commitment to seeing research results applied to conservation and restoration. Commitment to fostering a diverse, equitable, and inclusive environment. Teaching, mentoring, and

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ClemsonU ChairBiologicalSciences

WHERE: Clemson U WHAT: Department Chair for Biological Sciences
Clemson University invites applications and nominations for the Chair of the Department of Biological Sciences. The individual who holds this leadership position will serve as the executive officer of the Department and report directly to the Dean of the College of Science. Candidates are expected to merit the rank of Professor with tenure, have an internationally

recognized record of scholarship, and possess significant leadership experience.

The Department seeks a Chair excited to provide leadership with shared governance in areas of (1) recruitment, development, and retention of faculty and staff talent; (2) enhancing existing academic programs and developing new relevant programs and/or degrees; (3) increasing doctoral enrollments; (4) expanding external research funding; (5) strengthening inclusive excellence; and (6) establishing a strategic vision, goals, and implementation plan for the Department that aligns with ClemsonForward (Clemson University's strategic plan) and SciForward (College of Science's strategic plan). Additionally, the Chair will serve on the College's Leadership Team.

The Chair is expected to demonstrate outstanding fiscal acumen in both strategic allocation of resources and expanding entrepreneurial revenues. The Chair will work together with the Dean and the Director for Development to cultivate external support to advance Biological Sciences. The University and the College are committed to building diverse and inclusive leadership with support from an NSF ADVANCE-IT grant.

Qualifications (required) Qualified candidates will have an earned doctorate relative to the field. Additionally, candidates should currently hold the rank of professor or demonstrate a professional appointment consistent with appointment as professor with tenure in the Department of Biological Sciences and have a demonstrated international reputation for excellence in research. It is expected that candidates will have secured significant federally competitive funding and demonstrated understanding across NSF, NIH, USDA, DOE or DOD funding agencies.

Preferred The ideal candidate for this role will have a strong record of strategic vision, excellent communication skills, and a commitment to strengthening a multidisciplinary team and the university's mission of discovery, learning and engagement at an R-1 institution. Strong candidates will have experience proactively supporting and engaging multidisciplinary and diverse teams as well as effectively managing and engaging multiple internal and external stakeholder groups. Finally, the ideal candidate will have a history of excellence in strategic financial management and supporting inclusion, equity, and performance excellence.

Application Apply today at: <https://apply.interfolio.com/56189> Please submit cover letter, curriculum vitae, a statement of vision for Biological Sciences at Clemson University, and the names of five references by March 8, 2019 for full consideration.

*Note: References will not be contacted until final stages of the interview process.

Thank you and GO Tigers! -Danielle

We are here to help! Click here < <https://www.clemson.edu/human-resources/contact/service-teams/index.html> > for your HR support member's contact info!

Danielle Arrington | Talent Acquisition Office of Human Resources < <https://www.clemson.edu/human-resources/> > | Clemson University E-mail: dcleste@clemson.edu | Phone: 864.656.5487 Clemson is on the prowl for top talent...Click here for job opportunities! < <https://www.clemson.edu/careers/> >

Danielle Lester Arrington <dcleste@clemson.edu>

CollegeOfWilliamAndMary OneYearTeachingPosition

I thought this job posting would be appropriate for the evolution community. Lots of folks have strong biostats training, and the seminar course could be an evolution topic.

Cheers, Helen

Visiting Assistant Professor in Biostatistics, Department of Biology

The Department of Biology at the College of William and Mary invites applications for a 1-year, non-tenure-track visiting faculty positions that will begin August 10, 2019. We seek an individual with expertise in biostatistics, at both an introductory and advanced undergraduate/graduate level. The successful candidate will be expected to be an effective and dedicated teacher and will teach a 3:3 load per semester. This teaching load will include laboratory sections, as appropriate. In one semester we anticipate this individual teaching an advanced biostatistics course with lab, as well as a small upper-level undergraduate seminar. In the following semester, the person will teach an introductory biostatistics course with lab, and a small upper-level undergraduate seminar. The Department of Biology is sincerely committed to excellence in undergraduate education and has a small Masters program. We are seeking applicants with demonstrated commitment to undergraduate education. A Ph.D. in biology, biomathematics, or a related field is required at the time the

appointment begins (August 10, 2019).

Applicants must apply online at <https://jobs.wm.edu/postings/34438>. Please submit a curriculum vitae, a cover letter including a statement of teaching interests and philosophy, and syllabi and course assessment materials that demonstrate relevant teaching experience. You will be prompted to submit online the names and email addresses of three references who will be contacted by the system with instructions on how to submit a letter of reference. For full consideration, submit application materials by the review date, March 1st 2019. Applications received after the review date will be considered if needed and the position will remain open until filled. Information on the degree programs and curriculum in the Department of Biology may be found at <https://www.wm.edu/as/biology/index.php>. William & Mary values diversity and invites applications from underrepresented groups who will enrich the research, teaching and service missions of the university. The College is an Equal Opportunity/Affirmative Action employer and encourages applications from women, minorities, protected veterans, and individuals with disabilities. William & Mary conducts background checks on applicants for employment.

hamurphy@wm.edu

GalwayMayoInst Ireland eDNA MarineInvasiveSpecies

To whom it may concern,

Two research job opportunities on environmental DNA and marine invasive species are available at the Galway-Mayo Institute of Technology (GMIT), Ireland.

Appropriate qualifications and prior experience on molecular techniques are minimum requirements, while experience with environmental DNA approaches is desirable.

Full job descriptions and links for applicants can be found here:

<https://www.gmit.ie/human-resources/jobs-gmit> Deadline for applicants is the 8th of March 2019.

Regards

Luca Mirimin

Lecturer in Aquatic Ecology Department of Natural Sciences School of Science and Computing Galway-Mayo

Institute of Technology Dublin Road Galway

Office phone: +353 (0) 91 74 2173

Tá an ríomhphost seo faoi réir an tséanta seo leanas atá le fáil ag Séanadh Ríomhphost GMIT < <http://www.gmit.ie/general/seanadh-riomhphoist> >

This email is subject to the following disclaimer available at GMIT Email Disclaimer < <http://www.gmit.ie/general/email-disclaimer> >

Luca Mirimin <Luca.Mirimin@gmit.ie>

GulbenkianInst Portugal 1-3yr Bioinformatics

The Evolutionary Biology Lab at the Instituto Gulbenkian de Cioncia (IGC) is recruiting a collaborator in Bioinformatics and/or Computational Biology.

We are seeking a highly motivated person with experience in analysis of genomics data of prokaryotes to work at IGC, in the context of a collaborative project between Isabel Gordo (Principal investigator of the Evolutionary Biology Lab) and Michael Lassig (Principal investigator of the Statistical Physics and Quantitative Biology Lab at the University of Cologne).

The ideal candidate should have a PhD in the field of Bioinformatics or Computational Biology, research experience in NGS data analysis or modelling of microbial evolution. Candidates with a Ms degree will also be considered if they have experience in this field.

The successful applicant will be fully integrated in the team working in Gordos Lab, actively participating in lab meetings, seminars and training. S/he will also interact closely with members of Lassigs Lab and collaborators of the Collaborative Research Centre (SFB) 1310 Predictability in Evolution. To fulfil this role, s/he will be given a high degree of responsibility and freedom.

S/he will be encouraged to undertake periodic visits to the University of Cologne to strengthen the international collaborations that have been established in Gordos Lab. Fluency in English (written and spoken) is required.

The fellowship will have the duration of 12 months with possibility of extension at the end of this period, for a maximum of 3 years. The successful candidate will be contracted on the basis of exclusivity as regulated by the directives of the Instituto Gulbenkian de Cioncia (

www.igc.gulbenkian.pt).

Applications should be sent by email to ig-ordo@igc.gulbenkian.pt <vmartins@igc.gulbenkian.pt> with the subject: Bioinformatician IGC-Cologne. The application should consist of one PDF file including a motivation letter, CV and the contact of two previous supervisors (mentors or teachers in the case of a Ms holder). Potential candidates will be pre-selected on the basis of CV and motivation letter, and selected candidates will be called for interview.

Ricardo Ramiro <ramiroricardo@gmail.com>

Idaho Fish Evolutionary Genetics

Fisheries Geneticist Closing Date: March 31, 2019 <https://www.critfc.org/blog/jobs/fisheries-geneticist-5/> The Columbia River Inter-Tribal Fish Commission (CRITFC) is seeking Fisheries Geneticists with experience in population genomics, association mapping, and analyses of mixed stock fisheries. Positions are part of the Fishery Science Department, but will be located with the genetics group at the Hagerman Fish Culture Experiment Station in Hagerman, ID. This research group is involved in testing conservation, evolution, and ecological theories related to salmonids and other fishes. The employee will work under the Lead Geneticist, in association with CRITFC geneticists and technicians, as well as staff of the Fishery Science Department in Portland, OR. Efforts will focus on applying empirical genetics/genomics data to address questions related to conservation and recovery of steelhead, Chinook, sockeye, and coho salmon, white sturgeon, Pacific lamprey, and other fishes of the Columbia River Basin.

Position Details <https://www.critfc.org/blog/jobs/-fisheries-geneticist-5/> * Starting Salary: Range of \$57,098 - \$75,283 (CRITFC scale of GS11/1 to GS12/4; DOQ) * Benefits: Full health benefits (Health, Dental, Vision) and retirement package * Department: Fishery Science, Genetics * Classification: Full-time, Regular, Exempt * Location: Hagerman, Idaho

Shawn Narum, PhD Lead Geneticist Columbia River Inter-Tribal Fish Commission Hagerman Genetics Lab 3059-F National Fish Hatchery Road Hagerman ID 83332 Phone: 208-837-9096 x1120

Shawn Narum <nars@critfc.org>

ImperialC London Paid Ornithological Field Assist

I am looking to recruit a field assistant for the breeding season, this position is paid. Duties include the collection of field data on a wild blue tit population and oaks in Silwood Park. You will work in a team of students and technical assistants, collecting data on blue tits breeding in nest boxes and oaks. Duties involve nest box monitoring, catching of adults and young birds, ringing, data collection, data entry and management. There is the option to also contribute to ongoing research projects. We can offer reasonably priced accommodation on-site. Starting date would be late March but no later than 1st April for approximately 3 months depending on season.

Required skills: passerine handling and ringing skills (license a big plus), team work, fieldwork experience, independence and able to work in a team. Must be conscientious with data.

Must be allowed to work in UK. The Silwood Park Campus is a vibrant graduate campus one hour by train from London City with more than 120 graduate students from countries all over the world. During summer, there will even be our annual festival, Silfest! <https://www.imperial.ac.uk/visit/campuses/-silwood-park/prospective-students/life-at-silwood/> Silwoods academics are world-class scientists, and we offer a range of graduate courses to improve hard and soft skills. <https://www.imperial.ac.uk/visit/-campuses/silwood-park/research/> To apply, please send your CV, a motivation letter detailing your relevant expertise, and contact information for two references as soon as possible, to: Julia.schroeder@imperial.ac.uk

Many thanks,

Best wishes,

Julia

*I aspire to a sensible work life balance. I don't expect a reply to this email outside of your normal working hours.

** check out our excellent Master course in Ecology, Evolution & Conservation <http://www.imperial.ac.uk/-life-sciences/postgraduate/masters-courses/masters-in-ecology-evolution-conservation-msc-and-mres/> Dr Julia Schroeder Director MSc Ecology, Evolution and

Conservation Post-graduate tutor Imperial College London, Silwood Park Campus Buckhurst Road, SL5 7PY Ascot, Berks, UK +44 (0) 20 7594 9086 <https://sites.google.com/site/evolbehavecol/home-1> “Schroeder, Julia” <julia.schroeder@imperial.ac.uk>

INRA France MolEpidemiology PopDynamics

A researcher position to develop projects at the interface between the molecular epidemiology and the population dynamics of animal and zoonotic pathogens opens for the 2019 competition of the French National Institute for Agricultural Research (INRA). The successful candidate will be located nearby Clermont-Ferrand (France), in a research unit working on the epidemiology of animal and zoonotic diseases.

The projects of the successful candidate would aim at defining the factors that influence the circulation dynamics of pathogens to optimize their monitoring and limit their impact. These key factors would be studied through their impact on the genetic diversity of pathogens, combining models on the genetic diversity of pathogens and their circulation dynamics. The validation of hypotheses supported by these projects would help to optimize the health policies associated with the studied biological systems. Within the unit, the successful applicant will be involved in the scientific animation of groups interested in the circulation and evolution of pathogens, and the developments in statistics and computer science for epidemiology.

Further information on the profile we look for is available at:

http://jobs.inra.fr/en/offers/-emploi_perm/open-competitions/crcn/?concoure=ion=Auvergne%20Rh%C3%B4ne-Alpes&corps=&entite_rattachement=&discipline=ol-ogy&annonce%853&annonce_id=2#annonce
<http://jobs.inra.fr/en/offers/emploi_perm/open-competitions/crcn/?concoure=ion=Auvergne%20Rh%C3%B4ne-Alpes&corps=&entite_rattachement=&discipline=ol-ogy&annonce%853&annonce_id=2#annonce>

The dead-line for application is on the 4th of March 2019.

More information on the specific guidelines for applicants used for INRA competition is available at:

http://jobs.inra.fr/eng/offers/emploi_perm/open-

[competitions/crcn/?concoure=ion=Auvergne%20Rh%C3%B4ne-Alpes&corps=&entite_rattachement=&discipline=ol-ogy&annonce%853&annonce_id=2#annonce](http://jobs.inra.fr/en/offers/-emploi_perm/open-competitions/crcn/?concoure=ion=Auvergne%20Rh%C3%B4ne-Alpes&corps=&entite_rattachement=&discipline=ol-ogy&annonce%853&annonce_id=2#annonce)

Xavier Bailly UMR Epidemiology of Animal and Zoonotic Diseases

INRA VetAgro Sup

63122 Saint-Genes Champanelle

France

Xavier Bailly <xavier.bailly@inra.fr>

KewGardens ResAssist FungiPlantInteractions

Research Assistant in Fungi and Plant Interactions

Royal Botanic Gardens, Kew

You will join Kew’s science staff as a research assistant, conducting lab and field work and contributing towards publishing outstanding research within the Fungus-Plant Interactions programme. You will be part of the Comparative Fungal Biology team (part of the Comparative Plant and Fungal Biology department) that works closely with the other mycology teams at Kew to research the systematics, ecology and evolution of fungi and their interactions with other organisms. Research ranges from baseline diversity studies in biodiversity hotspots through to reconstructing the Fungal Tree of Life, with a special emphasis on evolution and ecology of lifestyles and symbiotic interactions. You will be working with different types of fungi, but with a particular focus on mycorrhizal and endophytic fungi. You will conduct largely independent work in the lab giving support to different projects, including microscopy, culturing, and various molecular techniques. It is also expected a basic knowledge on statistical analyses and notions of phylogenetics and phylogenomics.

You will be an outstanding early career scientist with a BSc or MSc in a relevant subject area. You will have a proven aptitude for delivering scientific outputs and excellent writing and oral skills. You will be an enthusiastic team player who is ready to engage in several projects and work in collaboration with multiple researchers at Kew.

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. Kew’s mission is to inspire 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.

This research assistant position is offered for two years. Salary will be in the range of pounds 24,455 to pounds 27,325 per annum pro rata, depending on skills and experience.

Closing Date: 10/03/2019

Further information: <https://careers.kew.org/vacancy/-research-assistant-comparative-plant-and-fungal-biology-378768.html> 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.

Ester Gaya <e.gaya@kew.org>

Dr. Ester Gaya Senior Research Leader | Comparative Fungal Biology Jodrell laboratory Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3DS, UK Tel: +44(0)208 332 5381 Fax: +44(0)208 332 5310 www.kew.org Email: EGaya@kew.org/ ester.gaya@gmail.com

The Royal Botanic Gardens, Kew is a non-departmental public body with exempt charitable status, whose principal place of business is at Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AE, United Kingdom.

Ester Gaya <ester.gaya@gmail.com>

Medellin Colombia 1yr MicrobiomeBioinformatics

A temporal research position is available at VidariumV Nutrition, Health and Wellness Research Center in Medellin (Colombia). The position is to be occupied for one year, with the possibility of an extension for an additional year. The group focuses in understanding obesity and related cardiometabolic disorders through the analysis of gut microbiota datasets (16S rRNA, other amplicon sequences, qPCR, metagenomics, metabolomics). For more information, see www.vidarium.org/en or contact Dr. Juan S. Escobar at jsescobar@serviciosnutresa.com.

The researcher will contribute with the development of bioinformatic tools to analyze large datasets in the context of gut microbiota and health, and eventually sup-

port work at the molecular biology lab. The researcher will also have the freedom to contribute to other ongoing projects. Vidarium has an excellent collaborative network, offering potential interactions with local and international researchers from several universities.

Applicants should have at least a masters degree in computational biology, bioinformatics, or a related field. Applicants should have prior computational experience demonstrated through publications in scientific journals. Experience with gut microbiota datasets is advantageous.

We are a small team of young interdisciplinary researchers based at Medellin, Colombias second largest city. In 2012, our city deserved the title City of the Year, beating New York and Tel Aviv for its transformations during the past 20 years. At 4,900 feet above the sea level, culturally diverse Medellin is surrounded by the Andean Mountains, offering attractions for outdoor recreation. The area receives year-round sunshine and warm weather that give it the nickname of Spring City.

Please submit applications through

<https://career4.successfactors.com/sfcareer/jobreqcareer?jobId=-3930&companyA001139074P&username> (Spanish only)

or send your C.V. to jsescobar@serviciosnutresa.com.

Juan Sebastian Escobar Restrepo
<jsescobar@serviciosnutresa.com>

MichiganStateU Tech EvolutionaryGenetics

There is an opening for a technician position in the lab of Dr. Emily Josephs in the Department of Plant Biology at Michigan State University. The Josephs lab uses genomic data to study the evolution of quantitative traits in wild and domestic plants. The technician will be involved in multiple projects related to plant evolutionary genetics. Specific projects will depend on the technicians skills and interests but could include greenhouse and growth chamber to measure plant phenotypes, plant collection trips in the US, DNA extractions or other benchwork, and bioinformatics. See more about whats going on in the lab at <http://josephslab.github.io>. Interested individuals should include a brief letter summarizing research experience and professional goals, along with a current CV and the names and contact information of three references. Letters of reference may

be requested for finalists.

Applications will be reviewed starting 3/5/2019. Please feel free to email with any questions at josep993@msu.edu

To apply, please visit careers.msu.edu, respond to Job 562391.

“Josephs, Emily” <josep993@msu.edu>

Museum fuer Naturkunde Berlin Insect Biodiversity

Position: Researcher Biodiversity of insects (m/f/d)

Work schedule: full-time

Duration: initially for 2 years, tenure after successful evaluation within the first 2 years (tenure track)

Salary level: E 13 TV-L, this translates to a monthly gross salary level ranging from 3.672,02 - 5.378,92, depending on the qualification and experience of the candidate. In addition to the salary, the contract includes health care and social security benefits

Responsibilities: Museum fuer Naturkunde Berlin is currently establishing an internationally visible “Center for Integrative Biodiversity Discovery” to meet the scientific and societal demands arising from the global biodiversity crisis and the need to secure the future of ‘System Earth’. The center will develop new scientific approaches to the study of biodiversity that will contribute to a more efficient and significantly faster global biodiversity inventory and at the same time enable high-quality taxonomic research on extinct and recent organisms. We are seeking a taxonomist/biodiversity researcher to develop and support the new “Center for Integrative Biodiversity Discovery” at the Museum fuer Naturkunde Berlin / Leibniz Institute for Evolution and Biodiversity Science. The jobholder is expected to take a leading role in the development of concepts for accelerating the process of biodiversity discovery and taxonomic workflows in order to overcome the ‘taxonomic impediment’ for the Center, to co-ordinate research activities across working groups, and to conduct own respective research in this field. To this purpose, she/he will bring her/his own research agenda in the field of integrative biodiversity discovery of insects, which should be embedded in the research program of the Center for Integrative Biodiversity Discovery. Both tasks involve engagement in grant applications as well as training and supervision of students

and junior researchers. We also expect active participation in public outreach activities of the museum about biodiversity and biodiversity discovery. The Museum fuer Naturkunde Berlin provides an excellent research environment. It houses state-of-the-art laboratories for morphology (including histology, imaging, SEM, and μ CT labs), molecular genetics/genomics and computation. Numerous research groups are working in a wide range of research fields including population genetics, phylogenetics, developmental and evolutionary genetics, and taxonomy. Our world-class zoological collections provide unique access to specimens collected over the last 200+ years.

Requirements: PhD in biology/zoology and proven record of postdoctoral experience as a taxonomist in collection-based biodiversity research on a species-rich group of insects. Strong experience in and strong general knowledge of integrative biodiversity discovery and taxonomic research as well as experience in taxonomy related workflows (proven by a strong publication record, which must include taxonomic studies). Demonstrated success in obtaining third party funding and experience in leading a research group, ideally experience in leading international collaborative research projects. Field work experience, preferably also in larger collaborative projects, is expected; research in one of MfN’s geographic focus regions (Southeast Asia, Africa) is desirable. Successful candidates will be expected to work in a highly collaborative, interdisciplinary environment at Germany’s largest natural history museum. The ideal candidate should have a strong knowledge of interdisciplinary and innovative research approaches beyond the own field of expertise (e.g. between biology, pharmacy, or medicine). Excellent team player, proven communication skills and intercultural competence. Professional written and verbal communication in English.

Applications with the usual documents (application letter, CV, degree certificates) should be sent, preferentially by email to recruiting@mfn.berlin, to the Museum fuer Naturkunde, Personalreferat, Invalidenstrasse 43, 10115 Berlin, Germany. Applications must be clearly marked with the code 08/2019. Application deadline is 13th March 2019.

The job advertisement can be found online at <https://jobs.museumfuernaturkunde.berlin/jobposting/-/51b2cedc85682d6569dd1963cadb8fc2ce3c301b>. For further information please visit the museum website or contact PD Dr. Michael Ohl (michael.ohl@mfn.berlin).

Special Notes: In the interest of equal opportunity, applications by qualified female applicants will be particularly welcome. Handicapped individuals will be given preference in cases of identical qualifications.

Family Policy: The Naturkundemuseum Berlin has set itself the goal of promoting a work-life balance and has been awarded the certificate

— / —

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

NatureMetrics UK BioinformaticsPopGenetics

NatureMetrics Ltd, a start-up company at the forefront of molecular biodiversity monitoring, are seeking experienced molecular ecologists to join their team. We currently have positions available for a junior bioinformatician and a population geneticist, to be based at our headquarters in Egham, Surrey, UK. For more details or to apply, please contact Kat Bruce at kat@naturemetrics.co.uk

Thanks

Kat

Dr Kat Bruce Managing Director, NatureMetrics +44 1491 829061 | +44 7444 428279
www.naturemetrics.co.uk | @NatureMetrics

Douglas Yu <dougwyu@mac.com>

OklahomaStateU FieldTecha FrogEvolution

The Reichert lab in the Department of Integrative Biology at Oklahoma State University is searching for a temporary (5 month) full-time research technician to assist with our studies of the evolution of frog bioacoustics. The position will run from March 15 (or as soon as possible thereafter) until August 15, 2019.

The primary duties will be field work involving audio recordings and behavioral tests in local populations of gray treefrogs. The technician will be involved in field collection efforts, behavioral monitoring, data collection and management and construction and maintenance of

experimental equipment. Being comfortable with and able for work in the field at night is essential.

Preferred qualifications include: A bachelor's degree in biology or related area of study. Experience working with some or all of the following: animal behavior, amphibian monitoring and marking, bioacoustics techniques & software, data management, field research. Reliability, flexibility and motivation to work both alone and as a team under sometimes difficult field conditions.

The position will be based at Oklahoma State University in Stillwater, OK. Salary is paid hourly at \$12.50/hr.

To apply, please send the following to Dr. Michael Reichert at michael.reichert@okstate.edu: CV listing relevant experience, a brief statement of interests and qualifications, unofficial copies of academic transcripts and names and contact information for two references.

For more information about the research group, see <https://reichertlab.com/> Michael Reichert Assistant Professor Department of Integrative Biology Oklahoma State University 501 Life Sciences West Stillwater, OK 74078 USA +1-405-744-5131 <https://reichertlab.com/> "Reichert, Michael" <michael.reichert@okstate.edu>

Paris PopulationGenetics

The Ecole Pratique des Hautes Etudes (EPHE) invites applications for one tenure-track assistant professor position that will start beginning of October 2019. The position is opened within the BIPEM team (<http://isyeb.mnhn.fr/fr/biologie-integrative-des-populations-evolution-moleculaire-388>) based at the Museum of National History in Paris (MNHN, France).

The successful candidate will be familiar with genomic data, the linux environment, and at least one programming language. She/he will develop its own research projects within the three main areas the lab is today focused on: — — i) Origin, dispersion and adaptation of human pathogenic bacteria, ii) Genomic and ecological basis of adaptation and iii) Inferences of demographic parameters and spatial modelling. She/he will benefit from the research environment of the hosting team and laboratory (UMRISYEB, located in the Natural History Museum in Paris), providing computing facilities and wet-lab resources. The MNHN stands in the heart of Paris, the « —latin quarter — », where a large community of evolutionary biologist is hosted (Sorbonne Université Campus Pierre et Marie Curie, College de

France, Ecole Normale Supérieure among others). Moreover, the EPHE belongs to the Paris Science Lettre University (Université PSL) which offers a dynamic environment not only in Paris but also throughout France.

The successful candidate will devote around 20% of her/his time to teaching, by developing new courses on the analysis of “omics” data and by participating to other ongoing courses (population genetics, molecular evolution, history and dispersal of human pathogens among other possibilities).

Qualifications: Applicants must hold a Ph.D. in a relevant field. The successful candidate will demonstrate familiarity with NGS data and programming language(s) and strong potential for establishing supported research program.

Applications: Full details can be found at: <https://www.ephe.fr/actualites/recrutement-des-enseignants-chercheurs-2019>. Applications will be submitted through an online platform (<https://recrutement-ec.ephe.fr>) opening February 11th at 12:00 and closing March 14th at 16:00 Paris time. Any inquiries are welcome and full support will be given to potential candidate to go through the application process.

—Stefano Mona

Contacts —:

Claudie Doums (claudie.doums@ephe.psl.eu)

Stefano Mona (stefano.mona@mnhn.fr)

Thierry Wirth (wirth@mnhn.fr)

—
stefano mona <stifano1@yahoo.it>

Poland EvolEcol Glis glis

Job: “Poland.evol-ecology.Glis_glis”

“Young researcher with Ph.D. is needed to coordinate field work in the project studying evolutionary ecology and ecophysiology of edible dormouse (Glis glis). Fieldwork will take place in central Poland, June-August 2019. Salary: 1000€-1200€/month. All costs related to accommodation and transportation (e.g. flights) are covered by the project. Work includes capturing animals, inspecting activity detectors, radio-tracking, physiological and behavioral tests. The successful candidate should send their short CV and a letter of motivation to z.borowski@ibles.waw.pl, and pass their short CV and ver-

Ph.D., driving license, experience in field studies, enthusiasm to work

— Zbyszek Boratyński

CIBIO/InBio, Research Center in Biodiversity & Genetic Resources, University of Porto Campus de Vairao, Rua Padre Armando Quintas, n.º 7, 4485-661 Vairao, Portugal <http://users.jyu.fi/~boratyns/> <https://cibio.up.pt/people/details/zboratynski> ”Nothing can be more improving to a young naturalist, than a journey in distant countries.“

Zbyszek Boratyński <boratyns@gmail.com>

Portugal Bioinformatics Technician

Research Fellowship Position Call: Bioinformatics/ Computational biology Technician

The Population and Conservation Genetics group, at Instituto Gulbenkian de Ciencia (IGC, www.igc.gulbenkian.pt) has an open call for a bioinformatics/ computational biology technician to work on the recently funded DISPO (Demographic Inference in Structured Populations) project for up to 24 months, starting on April 1st 2019.

The research activity proposed for this project consists in analysing genetic and genomic data from natural populations living in fragmented environments, including the development of scripts and pipelines to simulate and infer populations’ demographic history. The activities will also include the management of the lab computational resources.

Admission requirements: Successful candidates should have a Masters degree in a relevant discipline, a strong interest in bioinformatics and genomic skills and some background in population genetics or statistics. Experience in a programming/ scripting language is an absolute requirement (Python, R, MATLAB, C, C++, Java, etc). The candidate should also have strong oral and written communication skills in English.

Applications: Interested candidates should send their application to chikhi@igc.gulbenkian.pt until February 28, 2019. The application should include, in one PDF file named “CandidateName_DISPO_ComputTech.pdf”: a motivation letter expressing research interests relevant to the project. The application should also include a short CV and a letter of motivation. The application should be sent in a PDF file named “CandidateName_DISPO_ComputTech_SupportingDocuments.pdf”. Applications should be sent to the e-mail address chikhi@igc.gulbenkian.pt.

chikhi@igc.gulbenkian.pt. Application emails' should include project reference "PTDC-BIA-EVL-30815-2017" in the subject.

More information can be found here: http://www.igc.gulbenkian.pt/-mediaRep/igc/files/uploads/recruitment/-Anuncio_DISPO.2017.COMPUT.Tech.L.Chikhi.F.pdf
 Bárbara Parreira Post-Doctoral Researcher Population and Conservation Genetics Group Instituto Gulbenkian de Ciência, Portugal http://compbio.igc.gulbenkian.pt/-pcg/pcg_home.html bparreira@igc.gulbenkian.pt

SouthAfrica FieldManager StripedMouseProject

Position(s) as station and as research managers (starting in July 2019)

at the striped mouse project in South Africa

We are looking for an extremely motivated and independent biology student with a master's degree to join the striped mouse project in July (latest September) 2019 at least until November 2020 and for a maximum of 3 years as research or as station manager. This position is suitable for somebody who would like to gain experience in field work and scientific management. Managers get free accommodation at the station and a compensation to cover their daily costs. Travel costs can be refunded by up to an additional R 15 000 / year. As such, the position compensates for all arising costs but does not represent a legal employment.

The research manager and the station manager work closely together and both managers share many responsibilities. However, each will have specific main duties, but should also be able to deal with all other duties (for example when the other manager is on leave, or when a new manager has to be trained). The new manager will be instructed by the present managers.

Skills needed: Good experience in field work and good knowledge of behavioural ecology or a similar field of research. Experiences in working with small mammals, radio-tracking, blood sampling, living at a remote location are of advantage. Handyman skills are of advantage and needed for the station manager position.

You must be hard-working, highly motivated, able to work independently, good in communicating with people, able to supervise others, and not afraid of snakes.

You must have a drivers licence and you must love to live at a remote place in nature, without regular internet and cell-phone reception. Most importantly, you are fascinated by nature and science!

Great opportunity: This is a great opportunity to spend 1.5-3 years in Africa, acquiring important skills in field biology and project management, while improving your CV. These skills will become valuable whether you later continue with a PhD or other jobs. It will be very hard and demanding, but also a once in a life time experience!

Job description: Five working days a week (Mo, Tue, Thu, Fr, Sat), with Wednesday being used for a shopping trip to town (not counted as working day) and Sundays being free. Included are four weeks of holiday for 12 months, which has to be taken outside the main breeding season (so not during August to November) and during periods when the other manager is present at the research station (the two managers cannot be on leave at the same time).

Shared duties of managers at SKRS

Striped mice:

- Trapping - Observing - Radio-tracking, putting radio-collars on - Blood sampling

Collect data for specific research projects (to be determined). Examples would be collecting urine samples, data on basking, cognitive testing

Primary duties research manager / secondary duties station manager

- Data: - Weekly data entry - Weekly data check - Monthly data backup - Monthly data report - Training and supervision of field assistants - Training of students and postdocs - Support for students and postdocs - Management of transmitters - Management of field and laboratory supplies

Primary duties station manager / secondary duties research manager

- Technical support research station: - Water system incl. sewage system - Solar system - Gas bottles replacement - House and furniture - Running of the respirometry laboratory - Management of the captive colony - Management of the research station car - Management of bank account and cash box - Management of research station supplies

Compensation:

- Free accommodation.

- A monthly compensation of R 4 700, which is sufficient to pay all costs of living.

- For travel costs, R15 000 per year can be refunded, but

proof (receipts) must be presented for this. This refund is only payable after October 2020 and will not be paid if the person leaves earlier than agreed.

- You will become an honorary researcher at the University of the Witwatersrand in the group of Prof. N. Pillay.

- Scientific co-authorship will be possible if the manager contributes to the success of projects by not only collecting the majority of data, but also by data analysis and writing of the manuscript.

Responsibilities:

- The manager has to cover the costs to get to the station, including travel costs and visa fees. For this, a refund can be paid (see above).

- The manager needs to arrange for a health insurance covering him / her during the stay. A copy must be sent to C. Schradin before travelling to the stations.

Place and project: Succulent Karoo Research Station (SKRS) in the Goegap Nature Reserve near Springbok in the Northern Cape of South Africa. The research projects are on the socio-ecology of small mammals, studying ecological and physiological reasons of social behaviour, behavioural flexibility, cognition, and physiological adaptation.

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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>

StockholmU LabManager

Lab manager / research engineer at Stockholm University and SciLifeLab

We are looking for a lab manager to form an essential part of a research group in evolutionary genomics, led by Dr. Tanja Slotte (<https://tanjaslottelab.se>). The responsibilities for the lab manager will include molecular genetic lab work as well as general lab management including ordering and organisation of chemicals and lab materials. The lab work will include e.g. extraction of RNA and DNA (including high-molecular-weight DNA) from plants, PCR, qRT-PCR, and generation of next generation sequencing libraries.

The complete ad is available on the Stockholm University webpages - deadline to apply March 7, 2019: <https://bit.ly/2SwRufS> *Terms of employment* This is a two-year full-time position, with possibility for extension.

Qualifications We are looking for an individual with solid knowledge of molecular genetics/molecular biology and substantial previous experience of molecular genetic lab work. The lab manager should be responsible and have excellent organisational skills and attention to detail, as well as good communication skills. A capability to optimise and troubleshoot protocols is required. The person should hold at least a Master's degree in molecular biology, molecular genetics, plant physiology or another relevant subject and have the required experience and personal characteristics.

Infrastructure and environment The position will be based in the Slotte lab (<http://tanjaslottelab.se>), a part of the Dept. of Ecology, Environment and Plant Science, Stockholm University. We are located at the Science for Life Laboratory in Stockholm (<http://www.scilifelab.se>), which holds considerable expertise in high-throughput sequencing technology, genomics and bioinformatics. The working atmosphere is international with English as the working language, and the position offers plenty of opportunities for scientific exchange with researchers at SciLifeLab and Stockholm University.

Application Apply for the position (ref. no SU FV-0547-19) at Stockholm University's recruitment system at the latest on March 7, 2019: <https://bit.ly/2SwRufS> *Contact* For further information about the position, please contact Dr. Tanja Slotte directly at tanja.slotte@su.se

Tanja Slotte PhD, Associate Professor SciLifeLab Fellow
Department of Ecology, Environment and Plant Sciences (DEEP) Stockholm University 106 91 Stockholm

E-mail: tanja.slotte@su.se

Visiting address: Science for Life Laboratory Stockholm Tomtebodav. 23A, Solna

Tanja Slotte <Tanja.Slotte@su.se>

UBath EvolutionaryBiology

Tenure-track Assistant Professorship/Lectureship

We are excited to announce that the Milner Centre for Evolution at the University of Bath is currently recruiting an evolutionary biologist (at a level roughly equivalent to Lecturer = Assistant Professor). This position is part of our 'Prize Fellowships' program, which enables outstanding, independent, researchers to develop their academic career in a supportive research environment, with the opportunity to transfer to a permanent post of Lecturer (Assistant Professor) at the end of year two, or exceptionally at the end of year three.

For further information about the position and how to apply see:

<https://www.bath.ac.uk/jobs/Vacancy.aspx?ref=6489>

For more information on the Milner Centre for Evolution see:

<https://www.bath.ac.uk/research-centres/milner-centre-for-evolution/> Laurence D. Hurst Professor of Evolutionary Genetics Director of The Milner Centre for Evolution President of The Genetics Society The Milner Centre for Evolution Department of Biology and Biochemistry University of Bath Bath Somerset, UK BA2 7AY

Tel: +44 (0)1225 386424 Fax: +44 (0)1225 386779
Email: l.d.hurst@bath.ac.uk Website: <http://people.bath.ac.uk/bssldh/LaurenceDHurst/Home.html>
Twitter: @MilnerCentre

Laurence Hurst <bssldh@bath.ac.uk>

UCalgary EvolutionaryBiomechanics

The Department of Biological Sciences, Faculty of Science, at the University of Calgary invites applications for a full-time, tenure-track position in the area of Evolutionary and Comparative Animal Biomechanics. The appointment is at the rank of Assistant Professor with an anticipated start date of July 1, 2019.

We seek a candidate studying animal functional morphology/biomechanics, in an explicitly evolutionary compar-

ative context. We seek a broadly trained person who will complement existing strengths in animal physiology, development, comparative anatomy and paleobiology.

Applicants must hold a Ph.D. in biomechanics or other appropriate field, with research interests in the area of Evolutionary and Comparative Animal Biomechanics, and have at least one year of postdoctoral experience. Applicants must have a record of research scholarly output demonstrating the potential to attract and sustain external funding. Teaching experience in vertebrate biology/anatomy, and a demonstrated commitment to high quality teaching as evidenced by teaching accomplishments and accolades, teaching evaluations, and other lines of evidence, also is required.

The successful applicant will be expected to conduct innovative research and to establish an outstanding, externally funded research program. The successful candidate will be expected to teach vertebrate biology/anatomy and other courses in their area of expertise. The candidate will also have a strong commitment to excellence in teaching at both the undergraduate and graduate level and to graduate student training and supervision.

Application details: Applicants should submit a single pdf including curriculum vitae, statements of research interests, teaching philosophy, and the names and contact information of three references to: Dr. Douglas Storey, Head, Department of Biological Sciences University of Calgary, 2500 University Drive Calgary, AB T2N 1N4 Fax: (403) 289-9311 Email: headbio@ucalgary.ca

Application deadline is March 18, 2019. View full posting and apply: https://careers.ucalgary.ca/jobs/-3606152-assistant-professor-department-of-biological-sciences-faculty-of-science?tm_job521-1A&tm_event=view&tm_company28&bid'91 The Department of Biological Sciences at the University of Calgary is committed to High impact research and teaching and to creating an innovative, student-centered learning environment. Information about the Department and its programs can be found at <http://bio.ucalgary.ca>. To learn more about academic opportunities at the University of Calgary and all we have to offer, view our Academic Careers website (<https://careers.ucalgary.ca/pages/academic-careers>). For more information about the Faculty of Science visit Careers in the Faculty of Science (<https://science.careers.ucalgary.ca/>).

The University of Calgary believes that a respectful workplace, equal opportunity and building a diverse workforce contribute to the richness of the environment for teaching, learning and research, and provide faculty, staff, students and the public with a university that reflects the society it serves. All qualified candidates are encouraged to apply; however Canadians and permanent

residents will be given priority. In this connection, at the time of your application, please answer the following question: Are you a Canadian citizen or a permanent resident of Canada? (Yes/No).

jefox@ucalgary.ca

UCalifornia Berkeley LabManager PupfishCichlidSpeciation

The Martin Fish Speciation Lab seeks an enthusiastic and detail-oriented lab manager for research on the rapid evolution and ecological diversification of new fish species. Primary responsibilities will involve caring for laboratory colonies of pupfish and Cameroon cichlids, molecular genetics, behavioral observations, and specimen curation in the Museum of Vertebrate Zoology. Tasks include daily feeding and maintenance of the fish colonies, construction of recirculating aquatic systems, DNA extractions and genomic library preparation, curation and dissection of preserved fish specimens, behavioral observations, and training undergraduate researchers. Interest in ichthyology, evolution, and genomics is highly desirable. This position would be excellent preparation for prospective graduate students and there will be opportunities and encouragement to pursue independent research projects.

Pupfishes present a rare opportunity to investigate the recent origins of a spectacular adaptive radiation and the evolution of novel niches (e.g. scale-eating) endemic to a single Bahamian island despite thousands of similar Caribbean environments. Our lab also investigates Cameroon crater lake cichlids, one of the most celebrated examples of sympatric speciation in nature, and the role of gene flow in their diversification. Many of these species are now critically endangered and propagated in our fish colonies.

Education and Experience required:

We are seeking applicants with strong attention to detail who are thorough, well-organized, and able to work both independently and collaboratively on a team of other researchers. Preferred qualifications include a B.S. or B.A. in Biology (or related field) and either some animal care experience or molecular training. However, no previous research experience is necessary; on-the-job training will be provided for all tasks. The successful applicant will enjoy caring for animals in an unstressful and flexible work environment. The lab manager

will also be fully integrated into all lab meetings and social events as a member of the team. Those with a passion for fish and possible interest in applying to graduate school are strongly encouraged to apply. For more information on our research, please check out our website <http://labs.bio.unc.edu/martin/>. Salary: This will initially be an hourly position with the possibility for a permanent staff position after one year. For recent graduates, this will be approximately \$17-19 per hour. Work schedule is flexible and includes some weekend fish care responsibilities, but should be approximately 40 hours per week. Part-time, over-time, and permanent salary position requests are also an option.

Start date: July 1, 2019. This position is for one year with the potential for a permanent staff position for another three years.

To apply, please email Chris Martin (chmartin@berkeley.edu) by March 4th with your resume/CV, GPA, and describe why you are interested in this position, career goals, and any past research or animal care experience. Please note that the lab is moving from UNC to UC Berkeley starting in July 2019.

Christopher Martin

Assistant Curator of Ichthyology, Museum of Vertebrate Zoology

Assistant Professor, Integrative Biology

University of California, Berkeley

<http://labs.bio.unc.edu/martin/> @fishspeciation

christopher.h.martin@gmail.com

UCalifornia Berkeley TeachingBiodiversity

See this job posting online at: [*https://aprecruit.berkeley.edu/apply/jpf01987](https://aprecruit.berkeley.edu/apply/jpf01987) *The Department of Environmental Science, Policy, and Management at the University of California, Berkeley*

invites applications for a pool of part-time, temporary, non-tenure track lecturer positions (including summer sessions) to teach courses in* Environmental Science and related topics.* Screening of applicants is ongoing and will continue as needed. Applicants will be typically selected from this pool for one semester; some appointments may begin in the spring 2019 semester. The number of positions varies from semester to

semester, depending on the needs of the Department.

We are seeking outstanding lecturers who can teach/co-teach small, medium, or large lecture and/or laboratory courses, at both undergraduate and graduate levels. Potential course topics may include environmental science, environmental policy, ecology, forestry, insect biology, GIS/remote sensing, statistics and data analysis, range management, resource management, climate science, biodiversity, conservation biology, land use as well as courses that examine social, cultural, economic and political aspects of natural resources and the environment.

General Duties - The primary responsibilities for Lecturer positions include:

Â Delivering lectures and holding office hours

Â Planning and preparing lessons; researching and developing new topics, teaching materials and online resources

Â Supervising Graduate Student Instructors (GSIs), if applicable

Â Developing exams and projects and assigning grades

Â Maintaining accurate records and monitoring students' progress, as well as addressing any special student needs

Â Maintaining knowledge of, and implementing, college policies

Basic Qualifications (required at the time of application): A Master's degree or equivalent international degree, or a B.A./B.S. or equivalent international degree plus at least 5 years of professional/teaching experience.

Preferred Qualifications: A Ph.D. degree or equivalent international degree in an area related to Environmental Science is preferred. Preferred qualifications also include teaching experience and strong professional references.

Salary: Commensurate with qualifications and experience (starting annual, full-time salary is \$54,738). Some credit will be given for prior college-level teaching experience (not including graduate student or summer session teaching).

To apply, please go to [*https://aprecruit.berkeley.edu/apply/jpf01987*](https://aprecruit.berkeley.edu/apply/jpf01987). Interested individuals should submit a current CV, a statement of teaching (please include subject areas of interest as well as past and/or potential contributions to diversity and inclusion), and at least one letter of recommendation. Filenames should include the applicant's last and first names. It is optional to include a copy of transcript (recommended), evidence of teaching effectiveness (recommended), and a second letter of recommendation. All letters will be treated as confidential per University of California policy and California state law. Please

refer potential referees, including when letters are provided via a third party (i.e., dossier service or career center), to the UC Berkeley statement of confidentiality ([*http://apo.berkeley.edu/evalltr.html*](http://apo.berkeley.edu/evalltr.html)) prior to submitting their letters.

The posting will remain open until November 29, 2019 to accommodate future Department needs. Candidates who wish to remain in the pool after November 29, 2019 will need to reapply. Applicants can direct questions to [*espm_recruitment@berkeley.edu*](mailto:espm_recruitment@berkeley.edu). Additional information on the Department and campus can be found at [*http://ourenvironment.berkeley.edu*](http://ourenvironment.berkeley.edu) and [*http://berkeley.edu*](http://berkeley.edu). We encourage applications from individuals who will contribute to diversity in higher education. The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status. For the complete University of California nondiscrimination and affirmative action policy see: [*http://policy.ucop.edu/doc/4000376/NondiscrimAffirmAct*](http://policy.ucop.edu/doc/4000376/NondiscrimAffirmAct). Contact: Greg Biging, Vice Chair of Instruction, Dept. ESPM, UC Berkeley biging@berkeley.edu

biging@berkeley.edu

UCollegeDublin EvoDevo Epigenetics

UniversityCollegeDublin_EcoEvoDevo_Epit

University College Dublin is seeking to appoint a Lecturer / Assistant Professor in Animal Epigenetics with an Eco-Evo-Devo perspective, to the School of Biology & Environmental Science. We are looking for a candidate with research interests in the area of animal epigenetics with a particular interest in evolutionary processes who will contribute to the Genetics and Evolutionary Biology research theme of the School.

The candidate is expected to lead an original and innovative scientific research programme as well as contribute to the teaching of zoology, genetics and comparative biology. The candidate should complement and engage with current academic staff and research programmes within the School and wider UCD community. Important Note: When submitting details, applicants must include a 5-year relevant research plan detailing possible

funding opportunities (both Irish and international), and a teaching portfolio.

Lecturer/Assistant Professor (above the bar) Salary Scale: 52,848 - 83,090 per annum

Appointment will be made on scale and in accordance with the Department of Finance guidelines

Closing date: 17.00hrs (Local Irish Time) on 26th February 2019.

Applications must be submitted by the closing date and time specified. Any applications which are still in progress at the closing time of 17:00hrs (Irish Local Time) on the specified closing date will be cancelled automatically by the system. UCD are unable to accept late applications.

Prior to application, further information (including application procedure) should be obtained from the Work at UCD website: <https://www.ucd.ie/workatucd/jobs/>. UCD do not require assistance from Recruitment Agencies. Any CV's submitted by Recruitment Agencies will be returned.

Note: Hours of work for academic staff are those as prescribed under Public Service Agreements. For further information please follow link below:

<http://www.ucd.ie/hr/t4cms/-Academic%20Contract.pdf> Ref: 011146

Emma Teeling <emma.teeling@ucd.ie>

UEdinburgh PaidFieldAssistant BlueTits

We are looking to recruit field assistants for our blue tit project in Edinburgh. The positions run from mid April until the end of June 2019 and are paid (4547.50 GBP). Duties involve intensive nest box monitoring, catching and handling of adults and young birds. Any applicants should be physically fit, have good spatial memory, and be happy to work both in a team and independently. Bird handling experience would be useful (but is not essential). The work is physically demanding, and involves working long hours, often in poor weather conditions. Applicants would have to live in Edinburgh during the field season and be responsible for finding their own accommodation. To apply, please email a CV (with details of references) and short cover letter to joel.pick@ed.ac.uk.

Dr. Joel Pick Post-doctoral Research Associate Hadfield Group Institute of Evolutionary Biology School of Biological Sciences University of Edinburgh Edinburgh, UK

<http://joelpick.wixsite.com/research> The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336.

joel.pick@ed.ac.uk

UGothenburg MarineBiodiversity

Open position as Senior Lecturer in Marine Biodiversity

We have a position open as Senior Lecturer in Marine Biodiversity at the Department of Marine Sciences at the University of Gothenburg.

The successful candidate is expected to develop a research agenda in marine biodiversity with focus on evolutionary biology.

The position is placed at the Department of Marine Sciences ' Tjärnö (on the coast ca 170 km north of Gothenburg), which has a strong background in evolutionary biology, easy access to highly diverse marine habitats, including the adjacent marine national park

Kosterhavet, and excellent facilities for experimental work, culturing and molecular methods.

Deadline: 2019-04-12

https://www.gu.se/english/about_the_university/job-opportunities/vacancies-details/?id#36 Roger Butlin <r.k.butlin@sheffield.ac.uk>

ULisbon GenomicDataAnalysis

The Computational Biology and Population Genomics Group of the Center for Ecology Evolution and Environmental Change (cE3c) (<http://ce3c.ciencias.ulisboa.pt/>) is hiring for a three year contract an highly motivated researcher for working in genomic data analysis. The project is the extension of our recent paper on Global Change Biology <https://onlinelibrary.wiley.com/doi/full/10.1111/gcb.14497> see details at:

<http://www.eracareers.pt/opportunities/-index.aspx?task=global&jobId0440> – Octávio S. Paulo Assistant Professor Computational Biology and Population Genomics Group cE3c - Centre for Ecology Evolution and Environmental Changes Departamento de Biologia Animal Faculdade de Ciências, Universidade de Lisboa 1749-016 Lisboa Portugal

Tel: 00 351 217500614 direct Tel: 00 351 217500000 ext22359 Fax: 00 351 217500028 email: octavio.paulo@fc.ul.pt <http://cobig2.com/osp> skype: octaviopaulocobiggroup facebook.com/pages/Cobig2/

Octávio Paulo <ofpaulo@fc.ul.pt>

UMainz LabManager SocialInsectEvolution

Job announcement

In the Faculty 10 Biology, Institute of Organismic and Molecular Evolution, Group Behavioral Ecology and Social Evolution at the Johannes Gutenberg University of Mainz, Germany is looking for an

Lab Manager

(EG 9 TV-L; No: 3019-10-ml)

from July 1st 2019 for a permanent position.

We invite applications for a Lab Manager (technical assistant) position in Behavioral Ecology and Social Evolution group of Prof. Dr. Susanne Foitzik at the Institute of Organismic and Molecular Evolution. This young international research team focusses on the evolution, behavior, genetics and chemical ecology of social insects. (<https://www.blogs.uni-mainz.de/fb10-evolutionary-biology/research-groups/>). Excellent research conditions are available at the newly built bio-center at the JGU Mainz. For further information, please contact foitzik@uni-mainz.de. We are seeking a highly motivated lab manager or technical assistant with a strong background in evolutionary or behavioral genomics and / or bioinformatics. The successful candidate should be interested in evolutionary or behavioral questions and social insects. A proficiency in chemical and genomic methods (e.g. GC-MC, qPCR, RNAseq) is required. Possibility to conduct research projects independently and participate in field trips abroad will be offered. The working language of the lab is English, yet a willingness to learn German is required.

Requirements of appointment: - successful training as a technical assistant - methodological proficiency - research experience in evolutionary biology, behavior and genomics - interest in working on social insects - proficient in English

Applications from older applicants are strongly encouraged. Similarly, qualified candidates with disabilities will be preferred. The University of Mainz hosts many excellent scientific institutions (<http://www.uni-mainz.de/eng/>) and Mainz is a historic city located on the Rhine River with many students and a rich social and cultural life. Interested candidates should send an application (as a single e-mail attachment) including the job number (3019-10-ml) containing a CV, training certificates, a letter of motivation, and references to:

beruf@uni-mainz.de Abteilung Personal - PA 4 - der Johannes Gutenberg-Universität Mainz, 55099 Mainz

Closing date for the application is March 19th, 2019

Starting date for the position is negotiable, earliest possible date is July 1st 2019

Prof. Dr. Susanne Foitzik Evolutionsbiologie Institut für Zoologie Johannes Gutenberg Universität Mainz Johannes von Muller Weg 6 55099 Mainz

Tel: +49 (0) 6131 39 27 840 Fax: +49 (0)6131 39 27 850 Email: foitzik@uni-mainz.de

“Foitzik, Susanne” <foitzik@uni-mainz.de>

USussex EvolutionaryBiology

The School of Life Sciences at the University of Sussex seeks to appoint a Lecturer (Assistant professor) in the area of Evolution, Behaviour and the Environment to take up post in September 2019. Responsibilities include research, teaching undergraduates, supervision of graduate students and other duties associated with academic life.

We welcome excellent candidates who use modern methods to study questions at the forefront of conservation genetics, contemporary evolutionary biology or animal behaviour, but will consider outstanding applicants in other areas. Candidates must have a PhD in a relevant field and an outstanding record of excellence in research that is reflected in their publications. They will have sufficient breadth and/or depth of specialist knowledge in the discipline, and of research methods and techniques to develop research objectives, projects and proposals. We expect the successful candidate to develop a research programme that complements and reinforces the existing School of Life Sciences research portfolio.

The appointee will teach undergraduates through lectures, field courses, practical classes and tutorials, and will be motivated to further innovate our teaching methods. Candidates should be able to teach to a high standard and manage a diverse workload.

Informal enquiries are encouraged and can be made to Prof Adam Eyre Walker, Subject Chair for Evolution, Behaviour & Environment (a.c.eyre-walker@sussex.ac.uk). The closing date is March 27th 2019 and interviews will be held in mid to late-May.

The School is committed to equality and valuing diversity, and currently holds an Athena SWAN Silver Award. Applications are particularly welcomed from women and black and minority ethnic candidates, who are under-represented in academic posts in Science, Technology, Engineering, Medicine and Mathematics (STEMM) at Sussex. The School of Life Sciences welcomes applications to academic posts from candidates who wish to work part-time or as job-sharers. The University offers various schemes to provide real benefits to parents, these can be found at Family Friendly Policies.

Download job description and person specification <https://www.sussex.ac.uk/about/documents/0794->

[fps.pdf](#) Adam Eyre-Walker

Professor Adam Eyre-Walker Subject Chair Evolution, Behaviour and Environment School of Life Sciences University of Sussex Brighton BN1 9QG a.c.eyre-walker@sussex.ac.uk

Adam Eyre-Walker <a.c.eyre-walker@sussex.ac.uk>

UToronto Mississauga GreenhouseSeniorResearcher

Senior Research Associate, Greenhouse Operations
Job Number:1900320 Faculty / Division:University of Toronto Mississauga Department:UTM: Office of Vice-Principal - Research Campus:Mississauga

Description:The University of Toronto Mississauga is the second-largest division of the University of Toronto, Canadas preeminent research institution. The Research Greenhouses operations at UTM are a nexus for interdisciplinary scholars from across the natural science disciplines, led by an Advisory Committee.

The UTM Vice-Principal Research (VPR), in conjunction with the Chair of Biology, invites applications for the position of Senior Research Associate (Greenhouse Operations) to take a leadership role in managing this dynamic research environment. The incumbent will be responsible for the day-to-day scheduling, maintenance, and use of the Research Greenhouse (and its related communal-use environmental chambers, plus outdoor growth space), fostering and coordinating collaborations, as well as for establishing the Research Greenhouse operation as a dynamic, enriching research environment. Major Activities:

The incumbent will be expected to perform research with a high degree of independence and will design, direct, execute, analyze and present in written and oral forms novel investigative studies that build on and/or take advantage of the incumbents academic expertise and the capabilities of the Research Greenhouse operations. The plant growth facilities at UTM include a state-of-the-art research greenhouse, controlled environmental chambers and outdoor growth space.

As an important adjunct member of the VPR portfolio, the incumbent will be expected to participate in the review and/or preparation of grant/award applications, and promotion of a wide range of UTM research activities. At all times, the individual is expected to support the overall research mission of the campus, and

specifically the initiatives of the Office of the VPR.

The successful candidate will work independently, under the general principles established by the Advisory Committee, to:

- Promote and facilitate UTM as a base for research collaborations.
- Apply advanced environmental control, sensor monitoring and automation technologies to manage and oversee the maintenance, scheduling, troubleshooting and administration of the Research Greenhouse operations, including UTMs environmental growth chambers.
- Resolve, or oversee the resolution of, issues with the facility, the instruments, and/or experiments.
- Collaborate with staff from the Department of Biology with regard to day-to-day Research Greenhouse operations.
- Oversee planning and scheduling of equipment and facility usage to maximize efficiency.
- Prepare, prioritize, and oversee the Research Greenhouse operations budget (in consultation with the Advisory Committee), which will include the establishment and administration of user fees.
- Identify potential alternative funding sources, including external or industrial users, to enhance and expand the Research Greenhouse and growth chambers.
- Monitor supplies and storage usage, and order new supplies when needed.
- Develop and implement training procedures for facility users, on horticultural research technologies and best practices.
- Serve as an expert resource, providing technical direction to researchers in all aspects of plant growth, horticultural and forestry practice requirements, capabilities, etc.
- Stay abreast of current trends in horticultural techniques, and may be called upon to develop and implement new technologies for e.g. advanced growth and lighting conditions, improved environmental controls, monitoring of plant performance, sensor and automation technologies.
- Develop advanced technological ideas and promote sustainable solutions, guide their implementation or development into a final product or new approaches to research.
- Monitor for common pest and disease problems (identification, prevention, and remedies) and educate users on identification and control.
- Collect and archive relevant environmental data.
- Engage in, and support, collaborative research efforts with faculty, including participating in the development of research proposals related to the Research Greenhouse, growth chamber operations, enhancement of existing equipment, and acquisition of new equipment.
- Contribute to or co-author published articles, presentations, or scientific papers.
- Identify potential research funding opportunities.

Qualifications(MINIMUM)

Education: Ph.D. in Horticulture or Forestry.

Experience: At least five (5) years demonstrated expertise in a research greenhouse and/or a plant growth

facility; a thorough knowledge of modern horticultural methods and applications, hardware and software; ability to implement the newest experimental developments in horticulture; experience with environmental control systems, setup of modern plant

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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>

UUtah EvolutionaryGeneticsLabTech

The Castillo Lab in the School of Biological Sciences at the University of Utah is hiring a research technician to assist with lab-based research in evolutionary genetics of animal mating behaviors and interactions, interspecies interactions, and speciation.

Our lab uses an integrative approach combining population and molecular genetics with behavioral experiments to understand the genetic basis of sexual behaviors and reproductive isolation. We incorporate genomics of reproductive isolation to analyze repeated evolution of species specific mating behaviors. Our primary study organisms are species in the genus *Drosophila* (fruit flies) and *Caenorhabditis* (nematodes).

Responsibilities 1. Maintaining *Drosophila* and nematode laboratory cultures and processing field samples.

2. Ordering supplies and managing the lab and maintaining equipment.

3. Training and managing undergraduate researchers.

4. Collecting, managing, and analyzing behavioral, genetic, and chemical data and providing written summaries.

5. Using molecular biology to generate mutant strains necessary for behavioral experiments.

6. Participating in lab meetings and seminars when appropriate.

7. Assisting senior laboratory personnel in designing, implementing and performing new protocols and procedures as well as modifying of existing techniques.

8. Working independently and demonstrating adequate problem-solving skills and awareness of available resources.

Preferences The preferred candidate should have a B.S. or higher degree in Biology or a related field. Previous laboratory experience in genetics desirable. The applicant should have a good working knowledge of molecular biology, and genetics, as well as basic computer skills. The ideal candidate will have demonstrated initiative, curiosity and dedication to scientific research, as well as the ability to work independently and in a team environment.

If interested please contact Dean Castillo (dmc79@cornell.edu) and include a CV, statement of research interests and experience, and the names of three references. Informal inquiries are also welcome. Applications will be accepted until the position is filled and review of applications will begin immediately.

Dean Castillo Assistant Professor (starting Fall 2019) School of Biological Sciences University of Utah dmc79@cornell.edu <https://castillolab.github.io/> Dean Castillo <dmc79@cornell.edu>

UWashington FishEvolution

JISAO (Joint Institute for Science of the Atmosphere and Ocean) at University of Washington has a position for a competent professional, independent researcher (PhD in hand, required, plus postdoctoral experience) working on marine fish and invertebrate environmental DNA genetics/genomics/bioinformatics in the new G3 (Genetics and Genomics Group) at NOAA Pacific Marine Environmental Laboratory.

The duties require overall planning and executing laboratory research as follows:

Â Conducts bioinformatics and high-throughput (next-generation) sequencing DNA assays and analyses

Â Collects and statistically analyzes data, ensuring accuracy and data security

Â Writes peer-reviewed scientific publications

Â Presents invited papers at scientific conferences; participates in external seminars, workshops, professional societies and committees

Â Updates website on progress of projects

Â Manages regulatory documentation/paperwork

Â Writes or assists with grant proposals

Â Oversees, mentors, supervises and monitors professional staff, graduate and undergraduate student re-

searchers

Â Plans and conducts work requiring independent judgment in the evaluation, selection, and substantial adaptation/modification of standard techniques, procedures and criteria

Â Devises new approaches to problems encountered

Â Uses a wide application of complex principles, theories and concepts in the fields of genetics genomics, and bioinformatics

Â Works on complex problems of diverse scope where analysis of data requires in-depth evaluation of identifiable factors

Â Serves as a resource to research group

Â Possesses and applies a comprehensive knowledge of genetics, genomics, and bioinformatics and advances state-of-the-art research in these areas

Â Helps to manage the group's significant projects, requiring project management skills and experience

Â Provides innovative problem-solving approaches to enhance group capabilities

Â Uses peer network to expand technical capabilities and identify new research opportunities

Education requirement, minimum: PhD Degree in Biology or comparable field, with emphasis on genomics, bioinformatics, or population genetics

Experience requirement, minimum: Three to five years' experience in DNA extraction, PCR, DNA sequencing, microsatellites, high-throughput sequencing, phylogenetic analysis, population genetics, environmental DNA, bioinformatics, genomics, statistical analysis plus education/experience in oceanography and/or marine biology and/or fisheries. Excellent publication history.

Apply at: <https://uwpires.admin.washington.edu/-eng/candidates/default.cfm?szCategory=-jobprofile&szOrderID4597&szCandidateID=-0&szSearchWords=&szReturnToSearch=1>

Carol A. Stepien, Ph.D. Ocean Environment Research Division (OERD) Leader NOAA PMEL (Pacific Marine Environmental Lab) 7600 Sand Point Way NE Seattle WA 98115 (206) 526-6038 carol.stepien@noaa.gov

Carol Stepien - NOAA Federal <carol.stepien@noaa.gov>

WilliamMaryC EcolEvol Lecturer

Two Multi-year Lecturer Positions in Biology at William & Mary

The Department of Biology at William & Mary invites applications for two non-tenure-track lecturer positions that will begin August 10, 2019. These are multi-year, renewable positions, subject to satisfactory performance. We seek one individual with expertise in individual with expertise in Ecological and/or Evolutionary Biology and another with expertise in Molecular, Cellular and/or Developmental Biology. Both of the successful applicants will be expected to be effective and dedicated teachers and teach three courses per semester. This teaching load will include laboratory sections as a course, as appropriate. In particular, we are seeking applicants whose primary teaching responsibility will be to teach one or both of our large introductory biology courses and also develop courses that fulfill key curricular needs of our biology majors and/or contribute to the College’s General Education curriculum. The Department of Biology is sincerely committed to excellence in undergraduate education and has a small Masters program. We are seeking applicants with demonstrated commitment to

undergraduate education. A Ph.D. is required at the time the appointment begins (August 10, 2019).

Applicants must apply online at <https://jobs.wm.edu> . Ecology-Evolution Lecturer: <https://jobs.wm.edu/postings/34439> Molecular-Cellular Lecturer: <https://jobs.wm.edu/postings/34437>

Please submit a curriculum vitae, a cover letter including a statement of teaching interests and philosophy, and syllabi and course assessment materials that demonstrate relevant teaching experience. You will be prompted to submit online the names and email addresses of three references who will be contacted by the system with instructions on how to submit a letter of reference. For full consideration, submit application materials by the review date, March 1st 2019. Applications received after the review date will be considered if needed and the position will remain open until filled.

Information on the degree programs and curriculum in the Department of Biology may be found at <https://www.wm.edu/as/biology/index.php> . William & Mary values diversity and invites applications from underrepresented groups who will enrich the research, teaching and service missions of the university. The College is an Equal Opportunity/Affirmative Action employer and encourages applications from women, minorities, protected veterans, and individuals with disabilities. William & Mary conducts background checks on applicants for employment.

“Murphy, Helen A” <hamurphy@wm.edu>

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AndesAmazonBiodiversity Webinar

Dear Colleagues, I would like to share with you the upcoming webinar, as part of the “Pulse of the Planet Webinar Series” that NatureServe, EcoHealth Alliance and GEO BON are co-organizing.

When: February 22, 2019

Time: 12:00 noon Eastern Standard Time (EST), UTC-5

°Conserving the biodiversity of the Andes Amazon: Conservacin Amaznica experience in southeastern Peru±

Conservacin Amaznica - ACCA, is a Peruvian non-profit organization whose main objective is biodiversity conservation, to achieve this, it focuses in protecting natural areas, empowering people and using science for conservation. This presentation will be about the work done over 20 years in these different areas but especially in how the use of technology had allowed to detect threats to the Andes Amazon and how we have use this information to provide technical knowledge and build capacity among decision makers and stakeholders.

Speaker: Dr. Aimy Caceres Director of Science and Research Conservacin Amaznica

Dr. Aimy Cceres is a Peruvian biologist. She got her PhD degree from the University of Porto, Portugal. She has more than 10 years of experience in the planning and implementation of research and conservation projects in Latin America and Africa. She has great interest in understanding the impacts of human activities on tropical biodiversity, using this information to establish guidelines for conservation and strengthening capacities of Peruvian youth for research and conservation.

Registration link: <https://attendee.gotowebinar.com/-register/3978910876352448003> Miguel Fernandez <lac.natureserve@gmail.com>

Asilomar California Malacology Aug11-16 TravelGrants

Dear all

We are inviting applications for travel grants to support participation at the World Congress of Malacology, 11-16 August 2019, at Asilomar conference grounds, Pacific Grove, California.

Deadline for applications is Sunday 10 March.

The awards will be in the range of 1000-1500 each, and award notifications will be available 1 April (earlybird registration rate ends 15 April).

Eligibility for these awards includes research students and non-student researchers in positions that do not support their research (e.g. museum collection managers, hobbyists, etc). All applicants must submit the application form, and a letter of support from their supervisor (or equivalent).

Please spread the word! The application form is available here <http://www.unitasmalacologica.org> ... and should be returned by email to me <j.sigwart@qub.ac.uk> by 10 March. Letters of support can be sent separately or with the application, but must be received by the deadline for an application to be eligible for consideration.

Cheers,

Julia

Dr Julia D Sigwart Senior Lecturer & Associate Director Queen's University Belfast, Marine Laboratory Portaferry, Northern Ireland e. j.sigwart@qub.ac.uk m. +44 (0)780 5665 863 <http://www.qub.ac.uk/qml/People/Sigwart> new book! "What Species Mean: Understanding the Units of Biodiversity" <https://www.crcpress.com/What-Species-Mean/Sigwart/p/book/9781498799379> prvs 42931143=j.sigwart@qub.ac.uk

ASN StudentAwards LastCall

Applications for the 2019 American Society of Naturalists Student Research Awards are due tomorrow, 31 January.

The ASN Student Research Awards support research by student members that advances the goals of the society: the conceptual unification of ecology, evolution, or behavior. Each award consists of a \$2,000 check to the candidate. An applicant must be a member of the ASN (membership is international), must hold a bachelors degree or equivalent, must have passed to candidacy in a Ph.D. program or equivalent, and must be at least one year from completing the Ph.D. Projects in all types of research (i.e., laboratory, field, theory) are encouraged. A total of ten proposals will receive awards. Proposals will be judged on originality, strength, and significance of the questions being addressed, prospects for significant results, and the match between the proposed research and the ASN mission.

For more information: <https://www.amnat.org/-announcements/AWAStuResearch.html> Chris Eckert Department of Biology Queen's University Kingston, Ontario K7L 3N6 Canada chris.eckert@queensu.ca

Christopher Eckert <chris.eckert@queensu.ca>

BestRNA-seqService survey

Dear Evoldir community!

I'm starting a new experiment for differential gene expression analysis in a plant species and would like to

externalize the lab work as much as possible, ideally including the RNA extraction phase. I would like to take advantage of your common experience and collect your opinion about which do you think is *the best RNA-seq service* available. Of course, I will compile and send a summary of all the shared information so everybody can use it. If you think you can help to this purpose, please send an e-mail to my address gfm3@nyu.edu before *March 3* stating if you recommend a specific commercial service for RNA-seq or not, and if you want, any further detail you think may be useful for other researchers. Many many thanks!

All my best, Guillermo Friis

– Guillermo Friis, PhD New York University - Abu Dhabi Center for Genomics and Systems Biology Marine Biology Lab < <https://nyuad.nyu.edu/en/-research/centers-labs-and-projects/marine-biology-lab/researchers/guillermo-friis.html> > Abu Dhabi, UAE PO Box 129 188 Ph: + 971-58-596-5160 Email: gfm3@nyu.edu

Guillermo Friis <gfm3@nyu.edu>

BestRNA-seqService survey reminder

Dear Evoldir community!

Quick reminder: I would like to take advantage of your common experience and collect your opinion about which do you think is *the best RNA-seq service* available. After *March 3,* I will compile and send a summary of all the shared information so everybody can use it. If you think you can help to this purpose, please send an e-mail to my address gfm3@nyu.edu before *March 3* stating if you recommend a specific commercial service for RNA-seq or not, and if you want, any further detail you think may be useful for other researchers. Many many thanks!

All my best, Guillermo Friis

– Guillermo Friis, PhD New York University - Abu Dhabi Center for Genomics and Systems Biology Marine Biology Lab < <https://nyuad.nyu.edu/en/-research/centers-labs-and-projects/marine-biology-lab/researchers/guillermo-friis.html> > Abu Dhabi, UAE PO Box 129 188 Ph: + 971-58-596-5160 Email: gfm3@nyu.edu

Guillermo Friis <gfm3@nyu.edu>

CallForCollaboration SexRoleEvolution

Call for collaboration: Sex role evolution: testing the impacts of ecology, demography and genes

Sex roles (i.e., courtship, competition for mates, pair bonding and parenting) are among the most diverse social behaviour. Recent research is uncovering key elements of sex role variation, but significant gaps remain. Appropriate sexual behaviour is essential for reproduction, and thus understanding the causes and implications of sex roles are at the core of evolutionary biology and fundamental for the study of life history evolution, physiology and population biology. Understanding sex roles is also important for biodiversity conservation since disruptions to normal sexual behaviour due to environmental changes reduce the viability of wild populations.

Our team has been recently awarded an ELVONAL project of Hungarian Science Foundation to investigate sex role evolution in shorebirds (plovers, sandpipers and allies). The project is based at University of Debrecen (Hungary), and will be carried out between 2018 and 2022. Shorebirds exhibit an unusual diversity of sex role variation, and they provided some of the textbook examples of mating behaviour, parenting and breeding systems. Provisional results suggest that some of this variation is related to adult sex ratios, i.e. the ratios of adult males to adult females in the local population.

To achieve the objectives of this ambitious project, we are seeking collaborators willing to study behaviour, ecology and/or demography of any breeding shorebird population on the planet. To progress, we have developed a data collection protocol that explains field methodology to gather the information we are seeing in this project. We hope the ELVONAL project will lead to joint research publications, and in addition, to exchange of ideas, discussions and follow-up research. We also anticipate that our project will have training and capacity building components, and will impact on conservation for the benefits of shorebirds and people worldwide.

Find out more at: <https://elvonashorebirds.com/> or contact Dr Vojtech Kubelka kubelkav@gmail.com

Tamas Szekely <bssts@bath.ac.uk>

CornellU MicrobialFriendsFoes REU

The Cornell Institute of Host-Microbe Interactions and Disease (CIHMID) is accepting applications for the NSF-funded Microbial Friends & Foes Research Experience for Undergraduates (REU) Summer Program: <http://-cihmid.cornell.edu/reu-mff.html>. Applications are due February 21, 2019.

The Microbial Friends & Foes Program will take place from June 3rd to August 9th, 2019. The program will provide training in the concepts and experimental approaches central to understanding microbial interactions with eukaryotic hosts. Students will learn about broad diversity of microbe-eukaryote interactions through conducting independent research projects, participation in weekly research group meetings, seminars presented by CIHMID faculty, Microbial Friends & Foes Synthesis Panels, CIHMID Summer Symposium, and Microbial Friends & Foes Poster Session. Emphasis will be placed on appreciation of the scientific method and developing effective strategies for conducting research as well as on the synthesis of concepts important to interspecific interactions across diverse systems. In addition, workshops in electronic database literacy, science citation software, research ethics, science communication, and planning for graduate study will be offered to the Microbial Friends & Foes program participants. More information about the program along with a flier can be found at <http://-cihmid.cornell.edu/reu-mff.html>. Students will receive a stipend of \$5750, travel subsidy, meal allowance and on-campus housing. Applicants will be asked to identify 3 laboratories of interest, and will be selected in a two-step review process by the program organizers and potential mentors.

WHO SHOULD APPLY

- *All undergraduate students interested in understanding microbial interactions with eukaryotic hosts.
- *Members of minorities underrepresented in science, undergraduates from small colleges, and first-generation college students.
- *Applicants must be United States citizens or permanent residents and at least 18 years old.

Teresa Pawlowska <tep8@cornell.edu>

“Teresa E. Pawlowska” <tep8@cornell.edu>

CU Boulder REU Alpine Evolutionary Ecol

The Doak lab at CU Boulder and the Morris lab at Duke University are recruiting two motivated undergraduates for a summer research internship in alpine plant evolution and ecology as part of NSF's Research Experience for Undergraduates (REU) program. The students will design and conduct independent research that contributes to a larger NSF-funded project to investigate how demographic variation across geographic ranges determines species range limits and responses to climate change. To answer this question, we have been conducting a long-term, multi-site study of the demography and flowering phenology of two widely distributed and well-studied herbaceous perennial tundra plants, moss campion (*Silene acaulis*) and bisort (*Polygonum viviparum*). The REU students can combine short-term experimental or observational field studies with 15+ years of existing demographic data, spanning multiple populations, habitat types, and geographic regions, to ask compelling questions about the ecology or evolution of alpine plants. Examples of excellent questions that REU students could address include:

- * How do changing climate conditions (snowmelt, temperature) influence the timing of flowering and pollinators?
- * Studies of pollination limitation for plants in female or hermaphrodite-dominated subpopulations of the gynodioecious *Silene acaulis*
- * Evidence for up or down-slope range expansion of either species in response to climate change
- * Impacts of plant neighborhood structure on growth and survival
- * Studies of these or other species across local elevational gradients, to assess changes in form or population structure that would correspond to or arise from demographic shifts.

The REU students will be based at the Mountain Research Station at Niwot Ridge, CO from June 1 to August 3, 2019 (the main flowering and growth season). Staying at the Mountain Research Station will allow the student to engage in rigorous field work at Niwot Ridge, take advantage of long-term research plots, and interact with other REU students and researchers. In addition, the student will be able to supplement field research at Niwot Ridge with trips to nearby alpine areas and other greenhouse or computer modeling work at CU Boulder. In late July, the student will also participate in the main project by collecting demographic data in

long-term plots at Niwot Ridge and New Mexico.

We will provide the REU student with travel expenses, room and board at the Mountain Research Station, and a \$400/week stipend. We will also provide support for research expenses, including materials or research-related travel.

The ideal candidate will be interested in pursuing a career in ecology, environmental sciences, or evolutionary biology, and have demonstrated abilities in critical thinking, organization, and working as part of a team. Candidates should have some background in ecology, environmental sciences, or evolution, and the ability and willingness to engage in physically strenuous or uncomfortable activities (e.g., hiking at high elevation, carrying heavy packs, working outdoors under a variety of weather conditions, etc.). Candidates must be enrolled in an undergraduate program at the time of the REU (i.e., students that graduate prior to the program are not eligible). Students from underrepresented backgrounds (first-generation college students, women, minorities, etc.) are especially encouraged to apply!

Applications should include: 1) copy of unofficial transcripts, 2) contact information for two professors or other academic references who have agreed to be references for the applicant, 3) CV, and 4) a one-page description of your academic background and goals, your interest in the REU position, any previous research experience, and any experience working or hiking at high elevations.

Applications and letters should be sent to Dr. Megan Peterson at megan.peterson@colorado.edu with '2019 REU application' in the subject line. Review of applications will begin March 15.

Megan Lynn Peterson
<Megan.Peterson@Colorado.EDU>

CUNY Brooklyn Summer REU Urban Adaptation

Hi all,

Brooklyn College and the City University of New York are now accepting applications for our summer REU in Urban Ecology and the Environment (BUEE) that will run this summer from June 4 through August 9. BUEE offers an integrative summer research program aimed at developing early-career undergraduate students into mature and thoughtful environmental scientists - many of our research projects have a strong evolutionary focus,

and investigate how plants and animals adapt to urban environments.

BUEE couples authentic research experiences together with practical experience in research design, scientific communication and community outreach, leveraging the unique academic and research resources at Brooklyn, including a state-of-the-art Aquatic Research and Environmental Assessment Center < <http://www.brooklyn.cuny.edu/web/academics/centers/areac.php> >, and the recently-established Science and Resilience Institute at Jamaica Bay < <http://www.srijb.org/> >, focused on urban sustainability and resilience. Students are provided with a competitive stipend, housing and food allowances, and relocation credit for travel from outside the region. Applications from STEM-underrepresented students are especially encouraged.

More information on the program, including potential projects, can be found at the program homepage at buee.brooklyn.cuny.edu, or by contacting the program PI at buee@brooklyn.cuny.edu. Application materials should be submitted online before April 1.

Please spread the word, and share the program with research-oriented students interested in learning more about ecology and evolution in an urban environment.

Best,

Tony Wilson, BUEE PI

Brooklyn Urban Ecology and Environment Program
Department of Biology CUNY Brooklyn College 2900
Bedford Avenue Brooklyn, NY, 11210 United States
<http://buee.brooklyn.cuny.edu>

ESEB ConferenceTravelAwards Call2019

ESEB CONFERENCE TRAVEL AWARDS 2019

The European Society of Evolutionary Biology (ESEB) is pleased to announce the call for applications for conference travel awards 2019.

*These stipends are for students and young scientists to attend the ESEB 2019 congress in Turku, Finland (<https://eseb2019.fi/>) or the Evolution 2019 conference in Providence, RI, USA (<https://www.evolutionmeetings.org/>). The stipend will contribute to covering travel, living expenses and early bird congress registration fees. The award will be paid out as

a reimbursement after the congress, based on specification of the expenses. * ELIGIBILITY: - Applicants must be ESEB members before the deadline (for becoming an ESEB member, please visit <https://eseb.org/society/membership/>). - Applications can be submitted by scientists at various stages of their professional career (e.g., Masters and PhD students, postdocs, and lecturers). - Scientists working in a country with high GDP are not eligible (for the list of excluded countries see below). - People who received an ESEB travel stipend in the last five years are not eligible. - Applicants must submit to present either an oral communication or a poster to be eligible for the stipend. This will be verified before the reimbursement, but no proof that a poster or talk is accepted is necessary at the application stage.

PLEASE NOTE THAT THESE STIPENDS ARE GIVEN IN CONJUNCTION WITH ANALOGOUS STIPENDS OFFERED BY THE SSE (separate call), SO THERE IS NO NEED TO APPLY TO BOTH

HOW TO APPLY: Send your application by email to the ESEB Travel Bursary Committee, c/o Dr. Martijn Egas, Email: egas@uva.nl

The application should be no more than 2 pages long and include:

- Name of the applicant;
- ESEB membership number; - Budget, including sources of additional support; - An explanation of how attendance to the meeting will support the attendants professional goals; - and a CV.

Please submit the application as a single PDF-file. A support letter from the applicant advisor/mentor/senior colleague is also required. Support letters should be sent to the same email address (egas@uva.nl) by the applicants mentor.

DEADLINE: 15 APRIL 2019.

Members professionally based in the following countries are not eligible for the travel stipend: Australia, Austria, Belgium, Canada, China, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, Malaysia, Netherlands, New Zealand, Norway, Poland, Portugal, San Marino, Singapore, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, United Kingdom, United States of America.

Dr. Ute Moniatte | ESEB Office Manager | office@eseb.org European Society for Evolutionary Biology | www.eseb.org ESEB <office@eseb.org>

EvolutionVideoContest EnterByMay31

After a one-year hiatus, the Evolution Video Contest/Film Festival is BACK! We took a year off last year, but are excited to bring the 8th Annual Evolution Video Contest/Film Festival to this year's Evolution Conference in Providence, RI. So start working on your video now because the deadline to submit is May 31st, 2019 (11:59 PM, EST).

The rules are simple: we invite scientists and science educators (students, postdocs, faculty, and full- or part-time science communicators) to make and submit a 3-minute-or-less video telling an interesting evolution story in a creative way. Entries may be related or unrelated to your own research, and should be suitable for use in a classroom (K-12, undergraduate, graduate - your choice) or for viewing by a general public audience. Videos should be both informative and entertaining. (In other words, no taped lectures or narrated Powerpoint presentations!) Animations/claymations, music videos, and mini documentaries are all fair game.

You do not need to attend the conference in order to submit a video, and you do not need to be present to win!

The winner receives \$1,000 and "The Chucky" (the 1st-place trophy; see: evolutionfilmfestival.org/trophy). Runner-up receives \$500.

The Evolution Film Festival is always one of the highlights of the Evolution conference. — We hope you will consider submitting your own video this year. — Even if you don't, if you're going to be at the Evolution 2019 conference in Providence, please plan to attend the Film Festival on —Saturday, June 22nd from 7:30 ' 9:00 PM, view all the terrific submissions and vote on your favorite!

As in past years, this year's Evolution Film Festival/Video Contest is being sponsored by the Duke Initiative for Science & Society, the Howard Hughes Medical Institute, the Society for the Study of Evolution and the BEACON Center for the Study of Evolution in Action.

For more information and to view previous years' submissions: evolutionfilmfestival.org For details on how to submit: evolutionfilmfestival.org/how-to-submit Questions? Contact Jory Weintraub (jory@duke.edu)

Jory P. Weintraub, Ph.D. (he/him/his) Science Communication Director, Duke Initiative for Science & Society Director, Duke Broader Impacts Resource Center (BIRC) Senior Lecturing Fellow, Duke University 304 Research Drive, Box 90222, Durham, NC 27708-0222 Phone: (919) 668-0792 | Email: jory@duke.edu | Skype: [jory.weintraub](https://www.skype.com/user/jory.weintraub)

Jory Weintraub <jory@duke.edu>

Finland VolFieldAssist AvianEvolEcol AprilJune

Volunteer field assistant/internship in avian evolutionary ecology

PERIOD: 22.4.-15.7.2019 with flexibility on the start and end dates LOCATION: Turku, Finland

PROJECT Maternal effects play a key role in shaping offspring development and are a source of phenotypic variation. Understanding the proximate mechanisms underlying maternal effects is crucial. I am looking for a volunteer field assistant/intern to a collaborative project on the role of maternal (egg) hormones shaping offspring development and fitness passerines. The work will be conducted in April-July in a nest-box population in Turku, Finland. It is possible to make part of the data collection into an intern project. It is also possible to contribute to labwork.

DUTIES The field assistant/intern will be conducting nest-box monitoring, tasks related to the experiments, ringing and measuring chicks (great tits and pied flycatchers), together with the rest of the team (international). Potentially also blood-sampling. The field work will include long days (sometimes in bad weather) and work during weekends, thus the candidate needs to be prepared for that.

QUALIFICATIONS Suitable candidates should be hard-working, independent and organized, possess good communication skills and good English. Candidates should have a valid driving licence. Experience in field work with birds, and bird handling/ringing is a definite asset.

WE OFFER We will train the volunteer/student for the fieldwork and bird handling. Travel costs (from Europe) will be covered. The candidate will join an enthusiastic team of researchers and students (French, Finnish, Taiwanese).

If you are interested, please contact me asap and include

your CV and a short motivation letter.

Suvi Ruuskanen (suvi.ruuskanen@utu.fi), Department of Biology, 20014 University of Turku.

Suvi Ruuskanen, Academy research fellow Department of Biology 20014 University of Turku, FINLAND

Mobile +358503256547

skruus@utu.fi

KalahariMeerkatProject LabFieldTech

Social evolution: Field/Lab Manager position is available, starting in May 2019, at the Kalahari Research Centre in South Africa

We are seeking a highly motivated, organized, and independent individual to perform wet lab data generation, sample tracking, and sample export based at the Kalahari Research Centre field site in South Africa (<http://kalahari-meerkats.com/kmp/>). These activities support collaborative research on the molecular correlates and consequences of alternative social roles in cooperative meerkats and Damaraland mole rats, led by Dr. Jenny Tung (Duke University), Dr. Luis Barreiro (University of Chicago/University of Montreal), and Dr. Tim Clutton-Brock (University of Cambridge).

This position serves as the on-site coordinator for a unique set of studies that combine behavioral, demographic, and morphological data with functional genomic and cell culture approaches rarely performed under field conditions. The manager will be based in a custom-built, temperature-controlled cell culture lab at the field site, and will be responsible for isolating blood cells, performing in vitro challenge experiments, and culturing primary cells from wild meerkats and wild and captive mole rats. Additional duties include ordering and tracking reagents and supplies, performing regular maintenance of lab equipment and instruments, and communicating with other team members in England and the United States.

The ideal candidate will have previous experience with molecular techniques and, preferably, cell culture. However, we will provide additional training in wet lab protocols to the successful applicant. Excellent communication skills, the ability to work long-term in a remote field location, and attention to detail and careful record-keeping are essential. A bachelors degree and

previous research experience are required.

We require a 12-month commitment to the position, pending receipt of the appropriate South African visa. All travel to the field site and basic food and board expenses while living at the KRC will be covered by the research project, in addition to a modest monthly allowance to support additional living costs. The manager will reside in KRC-provided housing at the beautiful Kuruman River Reserve in Northern Cape Province, South Africa, along with a lively complement of researchers and volunteers from around the worldXaffording an opportunity to observe meerkats, oryx, elands, and bat-eared foxes while simultaneously performing cutting-edge work in ecological genomics.

To apply, please send a cover letter, CV, and the name of three references to Rachel Johnston (racheljohnston7@gmail.com).

“Jenny Tung, Ph.D.” <jenny.tung@duke.edu>

Malacologists Conchologists Grants

The Western Society of Malacologists (WSM) is proud to offer a financial stipend for students to study fossil or recent malacological collections to further their research. This award honors the late James H. McLean, Curator of Malacology at the Natural History Museum of Los Angeles County from 1964V2001 and Emeritus Curator until 2013.

*Eligibility: *Graduate, undergraduate, and exceptional high school students may apply. Those proposing to visit collections within daily commuting distance of their residence, university, or high school are ineligible for funding.

*Research Scope: *The student applicants research project must be collections-based and focus on extant or fossil western North American mollusks (freshwater, terrestrial, or marine).

Funding: The maximum award is \$1000 (US dollars) and should be used to support travel and accommodation costs incurred by visiting one or more collections. Collection visits of two or more days are encouraged. Applicants need not apply for the full \$1000 if it is not necessary.

*Museum(s): *Visits to any University-based or Natural History Museum collection (domestic or international) are eligible. Private collections are ineligible. Student

applicants are responsible for confirming their projects feasibility and arranging visit logistics with the University or Museums collections manager and/or curator. Students may apply to visit more than one museum and collection in their proposal. Generally, visits to collections that are within a feasible driving distance away (up to 1.5 hours) from the home institution of the researcher will not be considered as having a high priority for funding.

Deadline:** Proposals and recommendations are due ***March 1st, with announcement and notification of awardees in May or June. Funds are available for use until May 15th of the following year.

***Proposal Submission:** Proposals are to be sent electronically (as one document) to: Jann Vendetti at: jannvendetti@yahoo.com or jvendett@nhm.org, using the subject line: James McLean Student Grant

***Application:** ***Two pages (single-spaced)** with a title, description of the planned research, specific collection(s)/institutions proposed to be visited and why, anticipated visit dates (and length), and a budget justification. Personal information including the applicants name, address, email address, and student enrollment status (where enrolled, major, degree program, anticipated graduation date) should be included.

One recommendation from one graduate, undergraduate, or high school advisor should be sent separately to jannvendetti@yahoo.com with OF APPLICANT: WSM McLean Student Grant in the subject line.

<http://westernsocietyofmalacology.org/grants/james-h-mclean-student-grant-in-collections-based-research/>

Conchologists of America (COA) Academic Grants, 2019 Deadline: February 28, 2019 Please see the website: <http://www.conchologistsofamerica.org/grants/>

Eligibility:** ** - Degree-seeking students and anyone engaging in malacological research is eligible. Typically, 80V90% of applicants are degree-seeking students, and 80V90% of award recipients are degree-seeking students. - Persons of any nationality and country of residence may apply. - Applicants from previous years may re-apply. - Recipients of previous years may re-apply, but must include a submitted manuscript to or published article in the American Conchologist based on the previous award. - Degree-seeking students must have a letter of recommendations by their advisor emailed to [*jannvendetti@yahoo.com](mailto:jannvendetti@yahoo.com) ***by the Feb. 28th** deadline with the applicant's name in the subject line.

*** Rules & Guidelines:** ***** - All submissions must be submitted via email as a .doc, or .pdf., preferably in one file. Keep file size under 3 MB. - The proposal must concern a malacological topic with any molluscan taxon or taxa

as the focus, e.g., parasite studies should focus on the molluscan side of the interaction. All disciplines from autecology to zoogeography, including paleontology, are eligible. - The project must be self-contained. In other words, with the funding requested it must be possible to answer the question posed. However, the proposal may be a component of the applicant's overall research. - Permanent equipment is not an allowable expense. Time using a piece of permanent equipment (for example, SEM beam time) is allowable. - Institutional overhead is not permitted. - The maximum award is \$2500 US. Smaller amounts can be requested and may be more likely to receive funding. Partial funding is possible at the discretion of the Academic Grants Committee. - If a grant is awarded, please consider options to avoid having to pay personal income tax on it (US citizens and residents must provide their

— / —

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>

MolecularEcolPrize Nominations

Nominations for Molecular Ecology Prize

We are soliciting nominations for the annual Molecular Ecology Prize.

The field of molecular ecology is young and inherently interdisciplinary. As a consequence, research in molecular ecology is not currently represented by a single scientific society, so there is no body that actively promotes the discipline or recognizes its pioneers. The editorial board of the journal Molecular Ecology therefore created the Molecular Ecology Prize in order to fill this void, and recognize significant contributions to this area of research. The prize selection committee is independent of the journal and its editorial board.

The prize will go to an outstanding scientist who has made significant contributions to Molecular Ecology. These contributions would mostly be scientific, but the door is open for other kinds of contributions that were crucial to the development of the field. The previous winners are: Godfrey Hewitt, John Avise, Pierre Taberlet, Harry Smith, Terry Burke, Josephine Pemberton, Deborah Charlesworth, Craig Moritz, Laurent Excoffier, Johanna Schmitt, Fred Allendorf, Louis Bernatchez, Nancy Moran, and Robin Waples.

Please send your nomination with a short supporting statement (no more than 250 words; longer submissions will not be accepted) directly to Robin Waples (robinw3@uw.edu) by Tuesday, April 2, 2019. Organized campaigns to submit multiple nominations for the same person are not necessary and can be counterproductive. Also, note that nominations from previous years do not roll over.

With thanks on behalf of the Molecular Ecology Prize Selection Committee

“Rieseberg, Loren” <lrisebe@mail.ubc.ca>

MolluskEvolution StudentResearchGrants

The WESTERN SOCIETY OF MALACOLOGISTS announce a call for proposals for STUDENT RESEARCH GRANTS IN MALACOLOGY

As part of their commitment to the continued study of mollusks, the Western Society of Malacologists are again pleased to announce the availability of grants to support student research in malacology. Funds are available for actual research costs, including but not limited to, field and laboratory equipment, chemicals, photographic supplies, computer time and supplies, microscope usage fees, and reasonable research travel costs.

ELIGIBILITY: Applicant must be a full time student in a formal graduate or undergraduate degree program. There are no citizenship or affiliation restrictions and students from all countries are eligible.

The thesis, dissertation, or research project must be focused primarily on the systematics, biology, ecology, physiology, biochemistry, or paleontology of marine, terrestrial or freshwater mollusks in western North America. Projects dealing with cultural relationships, sustainability of resources, or conservation efforts are also appropriate. Research currently in progress or beginning in the next academic year will be considered.

REQUIREMENTS:

1. The cover of the application page should have the following information: proposal title, applicant name, addresses, contact numbers, etc, including a listing of no more than FIVE keywords that describe the proposed research.
2. The proposal, limited to two pages, which discusses the research project and its malacological significance

including details of the work to be aided by this grant.

3. A budget that outlines how the grant funds will be used.
4. A CV or outline of the applicants academic background.
5. A letter of recommendation from the applicants research advisor (must be transmitted or mailed separately by advisor).
6. A list of grants and amounts that are currently being received and have been applied for in the current academic year.

Membership in the Western Society of Malacologists is not required but is certainly encouraged and students receive a discounted rate. Award recipients are also encouraged to present their research at a subsequent WSM meeting. Abstracts are published in the WSM Annual Report.

ELECTRONIC SUBMISSIONS: Applications should be submitted in PDF format as a single document.

Please entitle the document as: lastname.firstname.WSMSTUDENT.pdf Email to: dzacherl@fullerton.edu AWARD: Awards of up to \$1000.00 US are available.

APPLICATION DEADLINE: Completed applications must be received no later than March 1. NO exceptions. Please apply early and avoid the deadline rush. Awards will be announced during the subsequent Meeting of the Western Society of Malacologists typically held during the summer months.

For further information contact: Danielle Zacherl, Professor (657) 278-7510 (voice); (714) 278-3426 (fax)

dzacherl@fullerton.edu Department of Biological Science, Box 6850 California State University Fullerton Fullerton, CA 92834-6850

<http://westernsocietymalacology.org/grants/-the-western-society-of-malacologists/>
dzacherl@fullerton.edu

mtDNA PopGenetics

Dear Colleagues,

Has anyone ever used mitochondrial tRNA sequences to investigate population differentiation or species delimitation?

I have some tRNA sequences resulting from the sequencing of a mitochondrial gene and I was wondering if they could be informative in terms of population structure and species difference. What strategies and methods have worked (or not) in your experience?

I'll be happy to share results in this mailing list.

Best,

Chiara

chiara.papetti@unipd.it

Chiara Papetti <chiara.papetti@unipd.it>

mtDNAtRNAs PopulationGenetics answers

Dear all,

I'm happy to post the replies I got to my question about mt-tRNAs as markers for population genetics.

Thanks to all for your help!

Chiara Papetti

chiara.papetti@unipd.it

My original question:

Has anyone ever used mitochondrial tRNA sequences to investigate population differentiation or species delimitation?

I have some tRNA sequences resulting from the sequencing of a mitochondrial gene and I was wondering if they could be informative in terms of population structure and species difference. What strategies and methods have worked (or not) in your experience?

Replies I got:

I do not think that mtDNA is very wise for population genetics analyses, for different good reasons:

Bazin, E., Glemin, S., Galtier, N., 2006. Population size does not influence mitochondrial genetic diversity in animals. *Science* 312, 570-572.

Galtier, N., Jobson, R.W., Nabholz, B., Glémin, S., Blier, P.U., 2009.

Mitochondrial whims: metabolic rate, longevity and the rate of molecular evolution. *Biol. Lett.* 5, 413-416.

Gerber, A.S., Loggins, R., Kumar, S., Dowling, T.E., 2001. Does nonneutral evolution shape observed patterns of DNA variation in animal mitochondrial genomes? *Annu. Rev. Genet.* 35, 539-566.

Papadopoulou, A., Anastasiou, I., Vogler, A.P., 2010. Revisiting the insect mitochondrial molecular clock: the mid-Aegean trench calibration. *Mol. Biol. Evol.* 27, 1659-1672.

Microsatellite markers will be much more informative and accurate

Mitochondrial tRNAs tend to be highly conserved within species and between closely related species (they're less variable than mitochondrial protein-coding genes, for example), but you might get lucky and find a few variable sites that could be informative.

To my knowledge the mitochondrial tRNA are not showing polymorphism. I sequenced one tRNA between COI and COII for hundreds of individuals and did not find any polymorphism in this region. If you find some, I will be interested by this.

One suggested reference:

Stauffer C. A molecular method for differentiating sibling species within the genus *Ips*. In: Gregoire J.C, Liebhold A.M, Stephen F.M, Day K.R, Salom S.M, editors. Proceedings: integrating cultural tactics into the management of bark beetle and reforestation pests. USDA Forest Service General Technical Report NE-237. USDA North East Research station; Syracuse, NY: 1997

In my opinion, you should use your tRNA sequences just like any other (haploid) marker, preferably keeping it attached to the neighboring mitochondrial gene you were targeting for sequencing (since these markers are linked, it makes no sense to analyze them separately). See Fontaneto et al. (2015) Guidelines for DNA taxonomy, with a focus on the meiofauna. *Marine Biodiversity*,

45:433'451 (<https://doi.org/10%2F7sds6>) for a review of the different approaches you could use for species delimitation.

tRNAs and tRNA “pseudogenes” can be very useful, as different regions are subjected to very different selection pressures. So, when using them, you should make very thorough investigations of the sequence blocks you end up using and the secondary structures. Check out my paper on myctophid Met tRNAs genes and their duplicates - a trait of myctophids in particular. They proved rather useful for phylogeny and species delimitation. Ref: Poulsen JY, Byrkjedal I, Willassen E, et al. Mitogenomic sequences and evidence from unique gene rearrangements corroborate evolutionary relationships of myctophiformes (Neoteleostei). /BMC Evol Biol/. 2013;13:111. Published 2013 Jun 3. doi:10.1186/1471-2148-13-111

I used chloroplast DNA for population genetic and phylogenetic studies in horsetails (genus /Equisetum/).

In these species, intra-population polymorphism seems very small, likely the consequence of clonal reproduction. For phylogenetic purpose, I was able to use intergenic non coding chloroplast DNA sequences which gave good results. —See attached papers. The primers used for chloroplast DNA amplification are often anchored within the tRNA genes, because these sequences are quite conserved.

You will find some sequences of tRNA genes in this paper :

Des Marais DL, Smith AR, Britton DM, Pryer KM (2003) Phylogenetic relationships and evolution of extant horsetails, —Equisetum, based on chloroplast DNA sequence data (rbcL —and —trnL-F). Int J Plant Sci 164:737'751

You will also find interesting literature about chloroplast DNA variations and their use for population genetic studies in trees in late 90's papers by Remy J Petit at Bordeaux, France :

<https://www6.bordeaux-aquitaine.inra.fr/biogeco/-Personnel/Annuaire/M-P/Petit-Remy/Liste-complete>

Chiara UniPD <chiara.papetti@unipd.it>

OklahomaStateU REUprogram Macroevolution

NSF funded Summer Research Experience for Undergraduates (REU) investigating morphological diversity of frogs and toads

The Moen Lab at Oklahoma State University in Stillwater is seeking applications from highly motivated and diverse undergraduate students to conduct independent research projects concerning the morphological diversity of frogs and toads.

As part of the program, the successful applicants will be trained to conduct scientific research and receive mentoring to advance their careers as scientists. Successful projects may lead to future research opportunities in the Moen lab and publication of a manuscript. Successful applicants will also receive a \$3200 stipend and housing through OK State University.

Brief description of the program: The program runs for 8 weeks, from 27 May V 19 July 2019 Students will work with a postdoctoral research mentor to choose a project, collect and analyze data, and present the results of the project at the end of the summer. Students will also travel to the Biodiversity Institute at the University Kansas to see one of the worlds largest amphibian collections, select specimens for research, and talk to curators and graduate students about collections-based research and careers.

Research projects will focus on the evolution, morphology, and mechanics of movement of anurans (frogs and toads). Potential subjects include:

(1) The relationship of body form and function (2) Evolutionary biomechanics (3) Macroevolution of ecology, morphology, and biogeography

Eligibility: Currently enrolled, non-graduating undergraduate students majoring in biology, or biology-related discipline are eligible to apply. Previous research experience is desired, but not strictly necessary. Students from historically underrepresented groups in the STEM-related fields are strongly encouraged to apply.

How to apply: The application will have four parts: a general form, an essay, a transcript, and contact information for a reference. Applications are due March 15, 2019. Successful applicants will be notified within two weeks following the application deadline. For detailed

instructions, follow this link: moenlab.okstate.edu/reu

If you have questions or concerns, please contact either the principle investigator Dr. Daniel Moen (daniel.moen@okstate.edu) or his postdoc Dr. Gen Morinaga (gen.morinaga@okstate.edu).

daniel.moen@okstate.edu

OmennPrize EvolutionAndMedicine NominateArticles

The International Society for Evolution, Medicine & Public Health invites nominations for the Omenn Prize of \$5000 for the best article published in the previous calendar year in any scientific journal on a topic related to evolution in the context of medicine and public health. The prize, provided by the generosity of Gilbert S. Omenn, will be awarded to the first author of the winning article. Authors are encouraged to nominate their own articles, but nominations of articles by others are also welcome. The submission deadline is March 31, 2019. Full information at <https://isemph.org/Omenn-Prize>. The Winner also receives expenses to present a talk at the 2019 meeting of the International Society for Evolution Medicine and Public Health in Zurich August 14-16, 2019 <https://isemph.org/2019-Meeting> rmnesse@gmail.com

RockyMountainBiologicalLab REU

Jill Anderson at the University of Georgia is searching for an enthusiastic undergraduate with a strong interest in evolutionary ecology for field research in an NSF REU position (National Science Foundation, Research Experience for Undergraduates) from June-August 2019. We study the ecological and evolutionary consequences of climate change for natural plant populations. We focus on research on Drummonds rockcress (*Boechera stricta* in the plant family Brassicaceae), a mustard plant native to the Rocky Mountains. Our studies take place around the Rocky Mountain Biological Lab (<http://www.rmbl.org/>), which is located in Gothic, Colorado near the wildflower capital of Colorado (Crested Butte). We quantify plant fitness and traits to ask whether climate change could disrupt long-standing patterns of lo-

cal adaptation, and to test whether phenotypic plasticity will enable populations to persist in the short-term. We perform large-scale reciprocal transplant experiments to examine patterns of adaptive evolution and natural selection in contemporary landscapes. Since fall 2013, we have planted >150,000 seeds and seedlings into five experimental gardens ranging in elevation from 2500 m to 3340 m (8202 feet to 11000 feet). Our summer research involves intensive monitoring of these experimental plants to record data on germination success, survival, growth, reproductive success, as well as life history and morphological traits. We conduct most of our work in the field, with a small proportion of indoor lab work.

The successful candidate will assist with ongoing fieldwork. In addition, there are many opportunities for students to develop independent projects associated with our overall objectives, including studies on: 1) population divergence in ecologically-relevant traits, especially drought, UV tolerance, and herbivore resistance; 2) phenotypic plasticity at multiple spatial scales; 3) population density and species composition of the herbivore community that attacks Drummonds rockcress; 4) flower color polymorphism; and 5) the importance of maternal effects in biological responses to climate change.

We are offering a stipend of \$500/week for a full time REU student (40 hours/week) for 10 weeks. The exact start and end dates are flexible. We will cover room and board at the Rocky Mountain Biological Laboratory and reimburse travel expenses up to \$500. Fieldwork will involve hiking to experimental gardens through rough terrain (1-3 miles one-way daily).

The University of Georgia is committed to maintaining a fair and respectful environment for living, work, and study. To that end, all qualified applicants from individuals with a strong interest in evolutionary biology will receive consideration for employment without regard to race, color, religion, sex, national origin, sexual orientation, gender identity, disability status, or age. The application consists of a cover letter listing your qualifications, a CV/ rsum and contact information for two references, all of which can be emailed to Dr. Jill Anderson at: jta24@uga.edu

Applications are due by March 11th, 2019.

Feel free to contact Dr. Anderson if you have any questions about the position. Additional information about our work can be found at: <http://andersonlab.genetics.uga.edu/Home.html> Jill T Anderson <jta24@uga.edu>

SMBE AwardNominations

This is a reminder that nominations are due January 25th, 2019.

Nominations Due for Prestigious SMBE Awards
Society for Molecular Biology & Evolution
smbe@allenpress.com

Dear SMBE Members,

In 2015, SMBE instituted four new awards for: Early-Career, Mid-Career, and Lifetime Research Achievements, and Service to the SMBE Community. We are now calling for nominations for these awards and ask you to consider nominating your colleagues.

The nominations will be due on January 25, 2019.

Briefly, the Junior Award for Independent Research is intended for nominees in tenure-track positions at the Assistant Professor level or equivalent; the Mid-Career Award is for the research contributions of faculty nearing promotion to Full Professor or in the early stages as a Full Professor; the Lifetime Contribution Award is for exceptional contributions to the published literature in the field of molecular biology and evolution; and the Community Service Award recognizes outstanding efforts on behalf of the Society and the broader scientific community. Awardees will receive a cash prize and a trip to the upcoming SMBE Annual Meeting in Manchester, United Kingdom (July 21-25, 2019).

Here are links to the pages describing these awards:

Allan Wilson Junior Award for Independent Research (<https://t.e2ma.net/click/pv0gs/9yk2r1/lktc2f>)

Margaret Dayhoff Mid-Career Award (<https://t.e2ma.net/click/pv0gs/9yk2r1/1cuc2f>)

Community Service Award (<https://t.e2ma.net/click/pv0gs/9yk2r1/h5uc2f>)

Motoo Kimura Lifetime Contribution Award (<https://t.e2ma.net/click/pv0gs/9yk2r1/xxvc2f>)

Nominations require a nomination letter, which should clearly indicate the award under consideration and also serve as a recommendation letter; a separate one-page summary of the nominees qualifications for the award; a CV of the nominee; and an additional letter of recommendation. Self-nomination is not allowed. The nominator need not be an SMBE member, but the nom-

inee must be a member of SMBE to be considered for the award.

The materials should be compiled into a single PDF file, and should be emailed to smbe@allenpress.com.

Best wishes,

Laura Landweber Past-President, SMBE 2019 SMBE Awards Committee Chair

810 East 10th Street | Lawrence, KS 66044 US

Society for Molecular Biology & Evolution
<smbe@allenpress.com>

SMBE BestGraduateStudentPaper 2018

Subject: *Best Graduate Student Paper of 2018*

SMBE is calling for nominations for *Best Graduate Student Paper of 2018*.

These awards provide recognition for outstanding student papers in both SMBE journals.

All articles published in the calendar year 2018 in the two SMBE journals, *Molecular Biology & Evolution* (*MBE*) and *Genome Biology & Evolution* (*GBE*), are eligible for nomination. This corresponds to papers published in the printed volume 35 in *MBE* and volume 10 in *GBE*.

The best student paper winners will be given a certificate, a prize of \$2,000 and a travel award to the next annual meeting.

Best Regards, Aoife McLysaght President, SMBE

Eligibility & Nomination

1. All articles published in the two SMBE journals, Molecular Biology & Evolution and Genome Biology & Evolution (one prize for each journal), in the calendar year 2018 are automatically eligible if the final publication date of the nominated paper is not more than two years later than the date of the nominee's PhD.
2. The nominated early-stage researcher must be the first author or joint first-author of the nominated paper.
3. An article and its first author can be nominated by anyone, including the first author.
4. A signed letter from the PhD advisor, MSc advisor, or equivalent, confirming that the paper was part of the nominees thesis or graduate work is required.

5. The deadline for submitting nominations is *March 11, 2019*.

How to Enter Please send the name of the nominee, a scan of the signed advisor letter, and the name of the paper for which the award is to be considered as a *SINGLE PDF* to smbe@allenpress.com. Please use the email subject line “MBE/GBE Best Student Paper Nomination”, deleting journal name as appropriate.

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

SMBE Nominations Due Awards

This is a reminder that nominations are due January 25th, 2019.

Nominations Due for Prestigious SMBE Awards

Society for Molecular Biology & Evolution

smbe@allenpress.com

Dear SMBE Members,

In 2015, SMBE instituted four new awards for: Early-Career, Mid-Career, and Lifetime Research Achievements, and Service to the SMBE Community. We are now calling for nominations for these awards and ask you to consider nominating your colleagues.

The nominations will be due on January 25, 2019.

Briefly, the Junior Award for Independent Research is intended for nominees in tenure-track positions at the Assistant Professor level or equivalent; the Mid-Career Award is for the research contributions of faculty nearing promotion to Full Professor or in the early stages as a Full Professor; the Lifetime Contribution Award is for exceptional contributions to the published literature in the field of molecular biology and evolution; and the Community Service Award recognizes outstanding efforts on behalf of the Society and the broader scientific community. Awardees will receive a cash prize and a trip to the upcoming SMBE Annual Meeting in Manchester, United Kingdom (July 21-25, 2019).

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Margaret Dayhoff Mid-Career Award (<https://t.e2ma.net/click/t6n5s/9yk2r1/h5u43f>)

Community Service Award (<https://t.e2ma.net/click/->

[t6n5s/9yk2r1/xxv43f](https://t.e2ma.net/click/t6n5s/9yk2r1/xxv43f))

Motoo Kimura Lifetime Contribution Award (<https://t.e2ma.net/click/t6n5s/9yk2r1/dqw43f>)

Nominations require a nomination letter, which should clearly indicate the award under consideration and also serve as a recommendation letter; a separate one-page summary of the nominees qualifications for the award; a CV of the nominee; and an additional letter of recommendation. Self-nomination is not allowed. The nominator need not be an SMBE member, but the nominee must be a member of SMBE to be considered for the award.

The materials should be compiled into a single PDF file, and should be emailed to smbe@allenpress.com

Best wishes,

Laura Landweber Past-President, SMBE 2019 SMBE Awards Committee Chair

Society for Molecular Biology & Evolution
<smbe@allenpress.com>

SMBE Nominations President-Elect, Secretary, 2 Councillors

Nominations for President-elect, Secretary and 2 Councillors due by Wednesday, February 27th, 2019

Society for Molecular Biology & Evolution

smbe@allenpress.com

Dear SMBE Members,

I am writing to solicit nominations for SMBE President-Elect, Secretary and 2 Councillors, whose terms will begin on January 1, 2019. All of these positions are for a duration of three years. As the society grows and thrives, council members play important roles in guiding its development and in soliciting and implementing programs that support our members, enrich opportunities for young scientists from around the world, and oversee our two excellent journals (MBE and GBE) as well as our annual meeting and satellite meetings.

Nominations will be reviewed by the nomination committee* who will then put forward a slate of two candidates for each position for membership vote. Past and current council members are listed at <https://www.smbe.org/-smbe/ABOUT/Council.aspx> (<https://t.e2ma.net/click/-typpv/9yk2r1/hlt7f>)

Please send nominations with a brief statement in support of your suggestion (self nominations are accepted) to: James McInerney (James.McInerney@nottingham.ac.uk) and David Pollock (David.Pollock@UCDenver.edu)

Nota bene: we ask the nominators to confirm explicitly that the person they are nominating has already confirmed their willingness to run for office.

Please send your nominations by Wednesday, February 27, 2019.

We look forward to hearing from you.

Sincerely yours,

David Pollock Secretary of SMBE, on behalf of the Nomination Committee*

*The Nomination Committee is composed as follows: James McInerney (Chair), University of Nottingham Judith Mank, University of British Columbia Liliana Milani, University of Bologna Shu-Miaw Chaw, Academia Sinica Geoff McFadden, University of Melbourne David Pollock (ex officio), University of Colorado

Sign up (<https://app.e2ma.net/app2/audience/signup/-77681/25123.35992099/>) to receive our future emails.

Society for Molecular Biology & Evolution
<smbe@allenpress.com>

SouthAfrica VolResAssist EvolPhysiologyBehaviour

re looking for 2 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.

The research the successful applicants will be taking part aims to experimentally investigate the hormonal and neuromolecular mechanisms underlying the transition from cooperation to conflict in a highly social mammal.

Applicants should be available for a period of 6 to 12 months starting as early as mid-March 2019. 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 biological samples), data editing and animal handling. Also, they should feel comfortable

with the sacrifice of experimental subjects for scientific purposes. Previous experience in the dissection and tissue collection of rodents will be greatly appreciated. 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. A financial contribution towards travel expenses will be made.

If you are interested in this position send your CV and cover letter stating your availability to Philippe Vulliouid (philippe.vulliouid@gmail.com). Shortlisted applicants will be invited for a Skype interview.

Deadline: 15th February 2019 (spontaneous applications beyond this date are welcome)

Philippe Vulliouid <philippe.vulliouid@gmail.com>

SouthAfrica VolResAssist MoleRat

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. A contribution towards travel expenses of 300 Euros/year will be made.

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 February 2019 (the position will however remain open until filled)

Philippe Vullioud <philippe.vullioud@gmail.com>

SouthAfrica VolResAssist MoleRat BrainBehaviour

We are looking for 2 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.

The research the successful applicants will be taking part aims to experimentally investigate the hormonal and neuromolecular mechanisms underlying the transition from cooperation to conflict in a highly social mammal.

Applicants should be available for a period of 6 to 12 months starting as early as mid-March 2019. 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 biological samples), data editing and animal handling. Also, they should feel comfortable with the sacrifice of experimental subjects for scientific purposes. Previous experience in the dissection and tissue collection of rodents will be greatly appreciated. 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. A financial contribution towards travel expenses will be made.

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: 21th February 2019 (spontaneous applications beyond this date are welcome)

Philippe Vullioud <philippe.vullioud@gmail.com>

SSEHuxleyAward CallForApplications

The Society for the Study of Evolution (SSE) Education Committee is pleased to announce the T. H. Huxley award, named in honor of Darwin's very public supporter, which recognizes and promotes the development of high quality evolution education resources. If you have an interesting project or educational activity to share, consider applying for this award. Information on previous awards is available here: <http://bit.ly/-2kP2pPM>. Graduate students and postdoctoral fellows are encouraged to apply. This award provides funding for an SSE member to present evolution education resources at the National Association of Biology Teachers (<http://nabt.org/>) annual conference. This year's NABT conference will be held Nov. 14-17, 2019 in Chicago, IL. The deadline for applying for the Huxley award is March 24, 2019. Apply here: <https://bit.ly/-2RzKnyh>. Questions? Contact Phil Gibson (jggibson '@' ou.edu) or Gaby Hamerlinck (ghamerlinck '@' ufl.edu).

– Kristin P. Jenkins, PhD Director

BioQUEST Curriculum Consortium bioquest.org (608) 622.9394

Summer Workshop 2019 Save the date! July 14-19, 2019 Check here for more information: <https://qubeshub.org/community/groups/summer2019> Kristin Jenkins <Kristin.Jenkins@bioquest.org>

Survey FishBiodiversity

Hi everyone !

I'm a Master 2 student in Ecology at the University of Montpellier France. I'm currently doing my master thesis within the lab MARBEC, under the leadership of Nicolas Mouquet, who's a director of research with the CNRS. We're doing a survey on the relationship between visual perception and biodiversity among fishes. If you have about five minutes to answer, it would be great !

https://www.biodiful.org/#/fisheyes_eng

If you want to help us out, you can share this survey within your networks along with the two following texts in english and french:

EN— We need your help for a survey on the relationship between visual perception and fishes biodiversity among. The online survey will only take you a few minutes : https://www.biodiful.org/#/fisheyes_eng .This work is coordinated by Ali  nor Stahl from MARBEC laboratory, in collaboration with Nicolas Mouquet, director of research with the CNRS and Fran  s-Guilhaumon, research scientist at IRD. Please help us out by sharing this link to your networks. Thank you.

FR— Nous avons besoin de vous pour une   tude sur le lien entre perception visuelle et biodiversit   chez les poissons. Il s'agit de remplir un questionnaire en ligne qui ne vous prendra que quelques minutes. Voici le lien :https://www.biodiful.org/#/fisheyes_fr .Ce travail est r  alis   par Ali  nor Stahl au sein du laboratoire MARBEC, sous la direction de Nicolas Mouquet, chercheur au CNRS et Fran  s-Guilhaumon, chercheur IRD. Merci de partager ce lien dans vos r  seaux cela nous aiderait   norm  ment. Cordialement.

Ali  nor STAHL   tudiante Ing  nieur agronome 4  me ann  e Master 2  me ann  e B2E Ecosyst  mes    l'Universit   de Montpellier +33 620 117 200 alienor.stahl@supagro.fr alienor.stahl@gmail.com

alienor.stahl@supagro.fr

Systematics ResearchFund DeadlineFeb20

The Councils of the Linnean Society (<https://www.linnean.org/>) and the Systematics Association (<http://www.systass.org/>) jointly administer the Systematics Research Fund (SRF) that provides grants annually for small-scale research projects in the field of systematics.

Typical activities supported include contributions to fieldwork expenditure, the purchase of scientific equipment or expertise (e.g. buying time on analytical equipment), specimen preparation (including the cost of temporary technical assistance), and contributions to publication costs. However, please note that it is unable to fund the cost of article publication charges. Projects of a more general or educational nature will also be considered, provided that they include a strong systematics component. Typical activities not supported include attendance at scientific meetings and contributions to student maintenance or tuition fees. The fund does not provide payments for Bench Fees. Projects already substantially funded by other bodies may be disadvantaged. Applications of all nationalities are welcome but applicants must be a current member of the Systematics Association or Linnean Society of London.

Successful projects are selected by a panel of systematists who represent a wide range of conceptual interests and taxonomic groups. Generally, applications in the range of   500-  1000 are preferred, the value of any single award will not exceed   1500.

Deadline: 20 February 2019

More information on SRF on the Systematics Association webpage: <http://systass.org/grants-and-awards/-srf/> Questions about the application procedure can also be sent to the SRF Administrator (srf@systass.org)

Dr. Anne D. Jungblut Grants & Awards Secretary for SRF The Systematics Association

Anne Jungblut <a.jungblut@nhm.ac.uk>

TreeVisualization app

Phlora: An iOS app for tree visualization and image display

Phlora is a visualization tool for exploring phylogenetic trees. Phlora lets you navigate around small or large trees and display various kinds of images attached to individual taxa. Phlora is free on the Apple App Store.

The app comes populated with examples of several phylogenetic trees for different groups of plants at scales from a few dozen to several thousand taxa. Examples include the cacti, the legume family as a whole, and the legume species of Arizona, the large and diverse genus *Viburnum*, and all species in the flora of Britain. Several trees include images to illustrate the utility of the app, including leaf images of *Viburnum*, whole plant photos of cacti, and high resolution photos of herbarium specimens of Arizona legumes. Additional photographs can be downloaded from the app's remote database. In addition, users can add their own images from their photo library, Files app, or iCloud, and they can set up their own phylogenetic trees and image collections on other platforms to download to Phlora.

Although some background in phylogenetic biology will be helpful for users interested in putting their own phylogenetic trees into Phlora, the samples included and the extensive help guide should make this feasible for anyone interested in doing so. Phlora also offers an opportunity for anyone with photographs of the world's biota to organize their data in an evolutionary framework.

Features:

- * Trees with up to several thousand species can be seamlessly navigated.
- * Very high resolution images can be associated with each species
- * External tree files and image collections organized by the user can be downloaded to the user's device and accessed from the app
- * A remote database having complete collections of images for a few of these trees can be used to explore the potential of the app for visualization of large collections of data
- * A search function allows rapid navigation to specific places in a large phylogenetic tree
- * Classification schemes for groups of species can be visualized, based on user provided phylogenetic definitions.
- * Specialized memory management allows gigabytes of high resolution image data to be associated with each tree (though there are limits to how many images can be

opened to maximum resolution on screen on older iOS devices with limited RAM).

Support for the development of this app was provided by a grant from the U.S. National Science Foundation. Questions or comments can be addressed to Mike Sanderson (sanderem@email.arizona.edu).

Michael J. Sanderson, Professor Department of Ecology and Evolutionary Biology University of Arizona Tucson, AZ 85721

Office: BSW 412 Phone: 520-626-6848
email: sanderem@email.arizona.edu

lab web site: <http://ceiba.biosci.arizona.edu> Phlora tree visualization app now available at the Apple App Store
r8s software: <https://sourceforge.net/projects/r8s> sanderem@email.arizona.edu

UCalifornia SantaBarbara REU PlantEvolution

*Research Experience for Undergraduates (REU) in Plant Ecology and Evolution *at the University of California, Santa Barbara, sponsored by the National Science Foundation

Apply to join the Mazer lab in summer 2019 as we investigate the process of natural selection in four populations of the widespread California native wildflower, Baby Blue Eyes (**Nemophila menziesii**). We're investigating wild populations along the length of the state to gain insight into the effects of rainfall and temperature regimes on the strength and direction of natural selection on life history and reproductive traits. Participants in this REU project will spend the summer at UCSB, conducting a combination of greenhouse- and lab-based activities.

Eligibility and Preferred Qualifications

Â U.S. citizens or permanent residents who are currently enrolled as undergraduates at any U.S. institution (In Fall 2019, you must be enrolled at your home institution).

Â Students with a strong interest in ecology and evolution; previous course work in Biology is preferred.

Â Students with a strong desire to obtain hands-on experience in plant evolution and ecology.

Â We particularly welcome women and members of under-represented groups.

Â *Start date: *June 1, 2019 ' July 1, 2019 (expected end date will be 12 weeks later, and there is flexibility in the duration of each student's REU.

What do REU participants receive?

Â A \$7000 summer stipend (for 12 weeks of full-time participation @\$600/week)

Â Housing supplement of \$400/month for 3 months

Â The opportunity to conduct an independent research project while working on an ongoing collaborative project

Experience in a variety of skills, including: plant cultivation and breeding, data management, image analysis, germination treatments, hypothesis-testing, statistical analysis, and discussion of the scientific literature in plant evolutionary ecology.

To apply:

Please send the following to Professor Susan Mazer (sjmazer@ucsb.edu) and Postdoctoral Associate Amber Nashoba (amber.nashoba@ucsb.edu) before March 15, 2019.

Â *Statement of interest*: Please describe why this opportunity is a good match for your personal, scholarly, and professional interests; why you believe that you're a great fit for this project; and how your perspective and experiences may contribute to the diversity of the scientific community.

Â *Transcript* (an unofficial transcript is acceptable)

Â *Reference*: The name, email address, and phone number of a faculty member or mentor who knows you well.

Susan Mazer President, California Botanical Society Director, California Phenology Project Professor of Ecology & Evolutionary Biology Department of Ecology, Evolution and Marine Biology University of California,

Santa Barbara Santa Barbara, CA 93106

cell phone: 805-729-3980 office: 805-893-8011 FAX: 805-893-2266 email: mazer@lifesci.ucsb.edu

<http://www.lifesci.ucsb.edu/eemb/faculty/mazer/-index.html> Susan Mazer <sjmazer@ucsb.edu>

VisitingScientist Funds

Dear Colleagues, I would like to draw your attention to the 1st Transnational Access Call of the SYNTHESYS+ project.

SYNTHESYS+ supports scientists to undertake short research visits to one or more of the 21 partner institutions organized in 13 Taxonomic Access Facilities in EU countries. Successful applicants will receive organizational and financial support.

The program is open to all scientists worldwide, but has a focus on Europe. Visits to institutions in the home country are not supported.

The application period for the 1. Call starts on 01. February 2019 and ends on 12. April 2019 (17:00 UK time).

See <http://www.synthesys.info/access.html> for more information

Kind regards Eva

Dr. Eva Häffner Freie Universität Berlin Science Policy Coordinator Botanischer Garten und Botanisches Museum Berlin Konigin-Luise-Str. 6-8 14195 Berlin

"Häffner, Eva" <E.Haeffner@bgbm.org>

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AMU Poznan EvolutionaryGenomics

Postdoc:: AMU_Poznan.EvolutionaryGenomics

Evolutionary Biology Group of Professor Jacek Radwan (<http://evobiolab.biol.amu.edu.pl>) at Adam Mickiewicz University, Poznan, is offering a Post-Doc in an NCN-funded project aiming to investigate effect of sexual selection on genome-wide genetic variation using a powerful approach of experimental evolution coupled with genome re-sequencing. The candidate should hold PhD degree in biological sciences or computer sciences and should have significant achievements in the area of evolutionary biology, molecular genetics or bioinformatics, published in international scientific journals. The employment is offered for three years, starting ideally in April 2019, but it is negotiable. Please apply before 1 March 2019.

Further information about the project and application procedure can be obtained from the project leader via

email: jradwan@amu.edu.pl

Brief summary of the project:

Genetic variation is a fuel of evolution, therefore assessing the role of sexual selection in maintaining this variation is fundamental to our understanding of evolutionary processes occurring in sexual species. The rate and extent of adaptation depend on available genetic variation, which sexual selection has long been thought to deplete. However, recent theory predicts that, contrary to the traditional view, sexual selection may actually increase genetic variation due to sexual antagonism and other trade-offs associated with evolution of costly sexually-selected traits. Yet, the effect of sexual selection on the amount of genetic variation segregating in populations has not been investigated empirically. The aim of the proposed project is to investigate effect of sexual selection on genome-wide genetic variation using a powerful approach of experimental evolution coupled with genome re-sequencing.

The project will use a species very well suited for this purpose, the bulb mite **Rhizoglyphus robini**, a well-established model in sexual selection research. The project will benefit from the fact that the genome of this species has recently been assembled and annotated.

Replicate populations will be allowed to evolve for about 20 generations under treatments differing in (i) sex ratio, and thus intensity of sexual selection and (ii) the frequency of males bearing an elaborated sexually-selected trait: thickened legs used for intrasexual contests. Previous research demonstrated that the trait is associated with increased ontogenetic intersexual conflict and life history trade-offs. Genomes of mites from replicated experimental evolution lines will then be sequenced and used for testing whether evolution of costly, condition-dependent sexually selected traits depletes (as predicted by traditional theory) or helps to maintain genetic polymorphism in functional parts of the genome (amino-acid substitutions in protein coding genes, and nucleotide substitutions in cis-regulatory sequences). The results will be interpreted in the context of intragenomic variation in recombination rate, a major determinant of genetic variation. The variation in recombination rate will be estimated in the proposed project.

– Prof. Jacek Radwan Evolutionary Biology Group Adam Mickiewicz University 61-614 Poznan Poland <http://sites.google.com/site/evobiolab/> Jacek Radwan <jradwan@amu.edu.pl>

AustralianNatIU RateMolEvolution

Do you know anyone looking for a postdoc in molecular evolution and phylogenetics? We are looking for a postdoctoral researcher who is interested in investigating the causes of variation in rate of molecular evolution between lineages, and developing ways of incorporating a biological understanding of rate variation into molecular dating methods.

The job ad, with application details, is here: www.seek.com.au/job/38278747 You can find a one-page summary of the position here: www.macroevoco.com Applications due 6th March 2019: Please feel free to get in touch with us to discuss the project and the postdoc.

Note that there is the possibility to split the position into two shorter postdocs, one focussed on comparative studies of rates and one on methodological development, so we also encourage applicants who are focussed on only one of these areas.

Please forward this email to any appropriate people or mailing lists

Thanks, Lindell Bromham & Xia Hua

Macroevolution & Macroecology group Research School of Biology Australian National University Canberra ACT 2601 AUSTRALIA Macroevoco.com www.TempoandMode.com Xia Hua <xia.hua@anu.edu.au>

Barcelona HumanEvolGenomics

Postdoc Position in Genomics, Bioinformatics and Evolution in Humans

A postdoctoral position is available to work on the Functional and evolutionary analysis of polymorphic inversions in the human genome, funded through the Beatriz de Pinós 2018 Program and the COFUND Marie Skłodowska-Curie Actions of Horizon 2020. This study is part of the INVVEST project that aims to determine the impact of inversions in the human genome at multiple levels by combining methods of different disciplines, such as novel genomic analysis, bioinformatics, population genetics, and molecular evolution.

The successful candidate will form part of an interdisciplinary and dynamic research team located at the Institut de Biotecnologia i de Biomedicina (IBB) of the Universitat Autònoma de Barcelona (UAB). The IBB is a multidisciplinary research institute located at the UAB, which has been selected Campus of International Excellence in Biomedicine. It is located in Bellaterra, a small residential town just 30 min away from the Barcelona center.

Candidate requirements: We are seeking highly motivated and talented individuals interested in applying genomics, bioinformatics or evolutionary methods to the study of different aspects of human genomic inversions. Candidates should have finished their PhD between 01/01/2011 and 31/12/2016, have at least 2 years of postdoctoral experience outside Spain, and have not resided in Spain for more than 12 months in the last 3 years. In addition, they should also have an excellent publication track record and be able to work well in a team environment.

Conditions: 3-year work contract with a competitive salary (~30,000 €/year), 12,000 € for research expenses, and additional research and mobility support provided by the hosting group.

Application: Send a CV and a one-paragraph summary of previous research experience and inquiries for additional information on the specific project to Mario

Cáceres (mcaceres@icrea.cat).

Application deadline: Please send application as soon as possible, and before February 20th 2019, since official application on the program webpage has to be finished by March 4th 2019.

Additional information:

Beatriu de Pinós 2018 Program

Comparative and Functional Genomics group: <http://grupsderecerca.uab.cat/cacereslab/> Mario Cáceres <mcaceres@icrea.cat>

BrownU EvoDevo

Postdoctoral Fellow: Cell and Developmental Biology, Brown University (Providence, RI)

Position type: Full time, at least for 2~3 years (or maximum of 5~6 years with annual renewal)

- Annual Stipend of \$50,000 or higher. Insurance and benefits are separately provided.
- Qualification: PhD in the field of Cell and Developmental Biology.

-Project Description:

(1) Cell and Developmental Biology: Identifying how germline factors contribute to cellular functions and development, using sea urchin embryonic cells and human cancer cells.

(2) Evolutionary Developmental Biology: Discovering how the molecular evolution alters the developmental program and contributes to species diversity, using multiple echinoderm embryos.

-Required skills: Research record in Cell biology, Embryology and Live imaging (e.g. microinjection, optogenetics, and 4D-confocal imaging). Experience in Biochemistry and bioinformatics is also welcomed. The PI will provide necessary trainings both in experiment conducting and manuscript/grant writing.

We greatly appreciate ones independent thinking, creativity, curiosity, enthusiasm, and hard working. Interested individuals should contact the PI (Mamiko Yajima, PhD): mamiko_yajima@brown.edu <mailto:mamiko_yajima@brown.edu>. Please enclose your CV, Cover letter and reprints of your representative works (if any), and the contact information of your three referees. Reviews will begin immediately and continue until the position is filled.

Mamiko Yajima <mamiko_yajima@brown.edu>

CIBIO-Portugal GoatGenomics

Agrigenomics group (CIBIO-Inbio Portugal, <https://cibio.up.pt/research-groups-1/details/genepop>) is searching for an 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.

The 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&jobId0613>

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 12/02/2019 to 05/03/2019.

Lucia Perez <luca@cibio.up.pt>

ClemsonU DrosophilaSystemsGenetics

Postdoctoral Positions in Drosophila Systems Genetics

The Center for Human Genetics at Clemson University invites applications for postdoctoral positions to study NIH-supported research programs on systems genetics in the *Drosophila* model system. The Center is housed in Self Regional Hall on the campus of the Greenwood Genetic Center and provides state-of-the-art facilities for genomic and systems genetic research. Applicants with expertise in any aspect of genetics/genomics, including molecular, developmental, quantitative or statistical genetics, and aptitude for analyses of large data sets are encouraged to apply. Salaries are commensurate with NIH postdoctoral pay scale and postdoctoral fellows will receive an annual \$15,000 discretionary research supplement along with ample opportunities to travel to conferences both nationally and internationally.

Applications should include a curriculum vitae with list of publications and the names of three references, and should be submitted to Dr. Trudy Mackay via Interfolio at: <https://apply.interfolio.com/53001> For further information, contact tmackay@clemson.edu and visit <https://www.clemson.edu/human-resources/index.html> Trudy Frances Mackay <tmackay@clemson.edu>

Cornell Active Learning Evolution Instructor

Teaching Postdoctoral Associate V Online Evolution and Biodiversity (University Title V Instructor) College of Arts and Sciences Cornell University Ithaca, New York

The Department of Ecology and Evolutionary Biology (EEB) at Cornell University, invites applicants for a full-time Teaching Postdoctoral Associate (University Title V Instructor) with interest in developing skills and experience in university teaching, and participating in discipline-based education research. Specifically, the postdoc will play a key role in supporting the development of an online course, Evolutionary Biology and Biodiversity (BIOEE 1781), which will emphasize active learning to enhance student engagement and group problem solving.

The Teaching Postdoctoral Associate, will be appointed for a one-year period with the possibility of extension, devoting 30% of their full-time effort to teaching the online evolution course, 20% of their effort to organizing the online transition process, and 50% of their effort to developing online materials and assessments, and implementing active learning pertaining to the course

goals and content. The successful candidate will collaborate with course faculty towards the following goals: formulate learning objectives, develop an online active learning-based curriculum that aligns with the learning objectives, provide feedback on course teaching practices, and assess learning gains, with a goal of publishing our results.

The discipline-based education research community is growing at Cornell; it is an exciting time to be involved. Departments all throughout campus are hiring teaching postdocs as a part of the Active Learning Initiative. This postdoc would have the opportunity to participate in weekly education journal clubs and research meetings with the larger EEB and Cornell community.

* Qualifications * Candidates should hold a doctoral degree in Biology, Biology Education, or a related field and have excellent organizational, interpersonal communication, team building and collaboration skills. Experience in developing active learning curricula and online teaching materials, and in assessing the learning consequences of pedagogical innovation are highly desirable.

* Terms of Appointment * This is a 1-year post-doctoral appointment with the possibility of extension for a second year based on satisfactory performance. Salary will be commensurate with experience and qualifications. The anticipated start date for the appointment is April 15, 2019 (start date is negotiable).

* Applications * To ensure full consideration, applications must be received by February 28, 2019.

To apply: applicants should submit (as a single pdf file) their CV, a statement of teaching philosophy/experience, a statement of research experience, and the names, phone numbers, and email addresses of three individuals who can serve as references to Professor Kelly Zamudio at kelly.zamudio@cornell.edu

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. Located in Ithaca, NY, Cornell University is an equal opportunity, affirmative action educator and employer.

Kelly Zamudio <krz2@cornell.edu>

HolarU Iceland Stickleback

Post-doctoral position (PD1) on long-term data analyses of ECO-EVO-DEVO dynamics in threespine stickleback of lake Mjvatn, Iceland

Holar University College, Iceland, seeks a Post-doctoral fellow for a Grant of Excellence (RANNIS) project to study the dynamics of *Ecological (ECO), Evolutionary (EVO) and Developmental (DEVO) processes*

Biodiversity is under serious threat from human activities and we lack understanding of the processes that shape it. The phenotype, including developmental plasticity, is an important determinant of the dynamic interactions between ecological and evolutionary processes. This project will study the interplay among ECO, EVO and DEVO to fill knowledge gaps in 1) the dual role of ecology in evolution (as driver of natural selection and phenotypic plasticity), 2) the molecular mechanisms underlying phenotypic variation, and 3) the feedbacks between phenotypic change and ecosystem function (eco-evolutionary dynamics). The project takes a spatio-temporal perspective, using threespine stickleback (*Gasterosteus aculeatus*) from lake Mjvatn, Iceland, as a model. The project is lead by Prof. Bjarni K. Kristjánsson (lead PI, Holar University College, Iceland) and Dr. Katja Räsänen (Swiss Federal Institute of Aquatic Sciences, Eawag, Switzerland). It is part of a large collaboration across Holar Univ. College (Prof. Sköglason), Eawag (Dr. Blake Matthews), Univ. of Wisconsin-Madison, USA (Prof. Anthony R. Ives), Univ. of Iceland (Prof. Zophonias O. Jónsson) and the Mjvatn research station (Dr. Árnir Einarsson). The students will have the opportunity to conduct part of their research at the collaborative institutions.

The postdoctoral fellow will *study spatial and temporal dynamics of selection in nature, integrating our long-term data on phenotypic variation with analyses of population genetic structure over space and time*. This project is an integral part of this collaborative study which also includes experiments (laboratory, mesocosm and field), transcriptomics and genomics, and mathematical modelling.

Location: The candidate will be based at the Dept. of Aquaculture and Fish Biology (DAFB - <http://holar.is/>-

[en/departmant_of_aquaculture_and_fish_biology](http://department_of_aquaculture_and_fish_biology)) at Holar Univ. College (HUC, North Iceland). HUC is situated in the beautiful village of Holar (Skagafjörður), with offices and research laboratories in the nearby town Sauárkrúkur. DAFB is an active research centre and the students will become part of a dynamic international team of graduate students and faculty. The beautiful natural setting and easy travel allow both outdoor and cultural activities.

*Requirements: *The candidate must hold a PhD degree in Ecology, Evolution, Development or related disciplines. An ideal candidate should have a strong interest in *evolutionary ecology*, a solid background in molecular genetics and statistical analyses (ideally on long-term data sets), have a shown ability to publish her/his own findings, enjoy working in a dynamic group, and have experience from field work and working on large data sets. The candidate has to be able to work independently as well as a part of a team. *The position is funded for three years*.

The working language is English. A valid driving license is a requirement.

Applicants should send an application letter, labelled with a name and the code 'PD1', with a statement of research interests and relevant experience (max 2 pages), *curriculum vitae* with a list of publications, copies of academic qualifications and the names and e-mail addresses of three referees, *as a single pdf* to ecodevo@holar.is latest *March 15, 2019*. *Preferred starting date is May 1st 2019*.

For further information contact Bjarni K. Kristjánsson (Head of the Dept. of Aquaculture and Fish Biology, Holar Univ. College) (bjakk@holar.is) or Dr. Katja Räsänen (katja.rasanen@eawag.ch).

Dr. Bjarni K. Kristjánsson, Professor Hólar - Háskólinn Hálar / Hálar University College Hálar 'Hjaltadal Iceland bjakk@holar.is Phone: +354 4556300 holar.is

Bjarni Kristjánsson <bjakk@holar.is>

IGC Lisbon PopulationGenetics

Postdoc in Population Genetics / Demographic Inference / Computational Biology.

The Population and Conservation Genetics Group, at the Instituto Gulbenkian de Ciência (IGC, <http://->

www.igc.gulbenkian.pt/), Lisbon is looking for a highly motivated postdoc to work on the DISPO project (Demographic Inference in Structured Populations) for up to 30 months, starting on the 01/05/2019. The candidate will conduct research on the use of genomic data to infer the demographic history of populations under models of population structure. This work will evolve around the concept of IICR (inverse instantaneous coalescent rate) which was originally developed by Mazet et al (2016, <https://www.nature.com/articles/hdy2015104>). In this project the candidate will work in close collaboration with O. Mazet and colleagues, at IMT (Institut de Mathématiques de Toulouse), including a PhD student co-supervised by O. Mazet and L. Chikhi. The post-doc will work on different possible extensions of the IICR to improve existing methods of demographic inference. Such extension may require simple simulations approach as in Chikhi et al (2018, <https://www.nature.com/articles/s41437-017-0005-6>) or require the development of a general Markov Chain-based inferential framework (Rodríguez et al., 2018, <https://www.nature.com/articles/s41437-018-0148-0>). Applications to the demographic history of humans, domesticates and endangered species, and more specifically lemurs and small vertebrates of Madagascar are expected.

DEADLINE for application: February 28th, 2019.

IMPORTANT NOTE: Latest starting date for the post-doc is May 1st, 2019. For more details on the position and how to apply go to: http://www.igc.gulbenkian.pt/-mediaRep/igc/files/uploads/recruitment/-Template_Edital_Contratacao_Doutorados_ENG_LCHIKHI_2019_01_21-1.pdf Bárbara Parreira and Lounès Chikhi Population and Conservation Genetics Group Instituto Gulbenkian de Ciência, Portugal http://compbio.igc.gulbenkian.pt/-pcg/pcg_home.html bparreira@igc.gulbenkian.pt

IUPUI Genomics

Genomics Researcher Opportunity

Beta Hatch (www.betahatch.com), a leader in the mass production of quality insects as feed, is seeking an experienced genomics researcher and/or breeder with a background in entomology and/or evolutionary biology. As part of our R&D division, we are looking to produce an insect genetically specialized for mass production. The position is open to post-doctoral candidates and other qualified researchers.

Role The genomics postdoctoral or research scientist will report to the CSO and be involved in developing the Beta Hatch breeding program. Specific objectives include analysis of existing genomic data, using CRISPR to investigate key traits for commercialization, developing a long-term strategy for genomic resources at Beta Hatch, and establishing breeding and selection protocols in collaboration with researchers at the USDA. This position will be hosted for 2019-2021 at the laboratory of Dr. Christine Picard at Indiana University - Purdue University Indianapolis (IUPUI), with opportunity for a permanent full-time role as a senior researcher on the Beta Hatch R&D team based in Cashmere, WA.

Beyond technical skills, the researcher must be able to perform well in a fast-moving startup company and handle multiple priorities. Candidates must be self-motivated, become well-versed in the field and rapidly learn new techniques. Excellent communication skills are a requirement.

Primary responsibilities include: -Analysis of existing and future genomics data for *Tenebrio molitor*. -Use of RNAi and genomic manipulations to study insect development, physiology and reproduction. -Maintenance of insect colony used for study. -Development of specialized insect for commercialization.

Qualifications -PhD in genomics or related field, additional experience preferred. -Laboratory experience in genomics or entomology essential, with a preference for candidates who have experience in RNAi, CRISPR, and next-gen sequencing. -Background in population genetics. -Knowledge of insect physiology and development strongly preferred. -Proficiency in the analysis and presentation of genomic and transcriptomic data. -Excellent planning and organizational skills. -Excellent verbal, written and graphic communication skills. -Must be excited about bugs!

For more details, and confidential inquiries please contact: Dr. Hans Kelstrup, Chief Science Officer hans@betahatch.com

hans@betahatch.com

IVPP Beijing AncientGenomics

Post-doctoral position available: Ancient Genomics

The Fu Molecular Paleontology Lab has a post-doctoral position available. If you have a background in statistical population genetics and/or data science, this might

be for you!

Our ancient DNA laboratory pioneered large-scale studies of human population history requiring analysis of large numbers of samples simultaneously. We use ancient DNA to understand early modern human migration routes; to explore how Paleolithic, Neolithic, and more recent humans expanded across Asia; and to study gene flow between modern and archaic humans. In addition, we are studying the genetic diversity of past mammals, including pandas and gray wolves, as well as the evolution of ancient pathogens in early East Asian populations.

We are looking for a highly motivated post-doctoral researcher with appropriate experience and interests to work on analysis of these data. Potential projects will likely investigate the biological history of humans using ancient and present-day genomic data.

The successful candidate will have analytical and computer skills that allow exploration of large and complex genetic data sets, preferably with previous experience in a world class ancient DNA lab. Research is conducted in English. The position will be supervised by Dr. Qiaomei Fu.

Applicants are requested to send their CV, a short statement of their research interests, and the names and contact information of two references to Dr. Qiaomei Fu at fuqiaomei@ivpp.ac.cn. Strong candidates will be expected to participate in a Skype or on-site interview. The position will be open until filled. The position is for two years with a possibility of renewal, and salary will be internationally competitive. Please address any questions to Dr. Fu.

The Fu Molecular Paleontology Lab, consisting of 15 members (including group leaders, postdoctoral scholars, doctoral and master's students and technicians), is a cutting edge international ancient DNA laboratory. It is based at the Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Sciences, near the center of Beijing, China, with easy access to public transportation. The Fu lab focuses primarily on ancient genomic analysis, but the institute's research environment is diverse, with a vibrant community of researchers studying anthropology, archaeology and paleontology. Beijing is a thriving fast-growing city with a robust international community.

Dr. Fu's work has been published in Nature, Science, PNAS, Current Biology, AJHG, amongst others, with one awarded the "top 2014 annual ten scientific events" in Nature. She was selected as one of the "Ten Chinese Science Stars" in 2016 by Nature, has received the 'Distinguished Young Scientist' award from the Chi-

nese Academy of Sciences, is part of China's Thousand Youth Talents program, is a HHMI International Scientist, and is one of China's Top Ten Innovative Pioneers of Science and Technology. For more information, her Research Gate site can be accessed here: https://www.researchgate.net/profile/Qiaomei_Fu . Melinda Yang <melyang@ivpp.ac.cn>

KewGardens FungiPlantInteractions

Early Career Research Fellowship in Fungi and Plant Interactions Royal Botanic Gardens, Kew

You will join Kew's science staff as a postdoctoral research fellow, conducting and publishing outstanding research within the Fungus-Plant Interactions program, and developing funding streams to support your science. You will be a future leader in the science disciplines pursued at Kew. The fellowship will provide you with the opportunity and skills to establish yourself as an independent researcher and to gain international recognition. At the end of the fellowship you will be a fully equipped research leader who is well-placed to secure full-time employment in science. You will be an outstanding early career scientist with a PhD in a relevant subject area (awarded within the past eight years) and, ideally, some postdoctoral experience. You will have a proven aptitude for delivering excellent science publications and demonstrated potential to raise research income. You will be an outstanding and enthusiastic communicator who is ready to engage with students, peers and the general public.

Fellowships are offered for three years, with a potential extension to five years dependent on performance.

The salary will be up to pounds 33,961 per annum, depending on skills and experience.

Closing Date: 23/03/2019

Further information: <https://careers.kew.org/vacancy/early-career-research-fellow-fungusplant-interactions-378779.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.

Kew's mission is to inspire 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.

You will join staff within the Comparative Fungal Biology (CFB) team (part of the Comparative Plant and Fungal Biology department) that works closely with the other mycology teams at Kew to research the systematics, ecology and evolution of fungi and their interactions with other organisms. The team employs a wide range of techniques, from light microscopy to genomics, to document and classify global fungal diversity, and to elucidate patterns and processes that give rise to and maintain it. The early career research fellow will join a recently funded programme of research on fungus-plant interactions. They will conduct largely independent research under the supervision of the CFB team, developing their own grant-funded research programme addressing fundamental questions on comparative aspects of fungus-plant interactions using contemporary methods and approaches such as high-throughput sequencing and bioinformatics. We welcome applicants working in any kind of fungus-plant interactions (e.g. endophytic fungi, mycorrhizae).

Salary will be up to pounds 33,961 per annum pro rata, depending on skills and experience. Benefits include 30 days holiday per year, a choice of pensions, a flexible benefits scheme as well as a great working environment.

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.

Ester Gaya <e.gaya@kew.org>

Dr. Ester Gaya Senior Research Leader | Comparative Fungal Biology Jodrell laboratory Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3DS, UK Tel.:+44(0)208 332 5381 Fax:+44(0)208 332 5310 www.kew.org Email: EGaya@kew.org/ ester.gaya@gmail.com

The Royal Botanic Gardens, Kew is a non-departmental public body with exempt charitable status, whose principal place of business is at Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AE, United Kingdom.

Ester Gaya <E.Gaya@kew.org>

Lisbon ClimateAdaptation

SardiTemp is a multidisciplinary project, where we are going to use ecological variables to understand how species distribution will evolve facing climate change. We will predict species distribution according to IPCC predictions to 2100.

Postdoc on Ecological Niche Modelling of Small Pelagic Fishes, Lisbon, Portugal

The Marine Ecology Group, at ISPA - Instituto Universit rio (<http://www.ispa.pt/>), Lisbon is looking for a highly motivated postdoc to work on the SardiTemp project - The impact of Climate Change on the Ecology and Dynamics of Small Pelagic Fish“ with the references LISBOA-01-0145-FEDER-032209 and PTDC/BIA-BMA/32209/2017, funded by Investment and Structural European Funds (FEEI) ‘ through ‘Programa Operacional Regional de Lisboa’ and by National Funds through FCT, for up to June 2021. SardiTemp is a multidisciplinary project, where we will implement ecological, physical and biological variables to understand how species distribution will evolve facing climate change, by predicting species distribution according to IPCC predictions to 2100.

The candidate must hold a doctoral degree (mandatory) preferably in biological sciences, computation sciences or akin areas (optional) and must have previous experience in ecological niches modelling in marine environment through mechanistic and/or correlative methods. The candidate must have a record of publications of merit in one of the areas aforementioned, 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. It is also valued experience in scientific outreach for different target audiences, in project management and in the submission of research projects to funding mechanisms.

DEADLINE for application: February 22nd, 2019.

IMPORTANT NOTE: For more details on the position and how to apply go to: <http://www.eracareers.pt/-opportunities/index.aspx?task=showAnuncioOportunities&jobId0165&idc=1>

Gon Silva gsilva@ispa.pt Marine Ecology Group MARE - Marine and Environmental Sciences Centre ISPA - Instituto Universit rio

Gonçalo Jorge Franco Silva <gsilva@ispa.pt>

MaxPlanck GenomicsMigration

**** Postdoctoral Position ' Genomics of Migration ****

We are hiring - come and work with us! The Max Planck Research Group Behavioural Genomics combines several biological disciplines including evolutionary genomics, bioinformatics, molecular biology, behavioural experiments in controlled lab and field settings, using emergent technologies to identify the genetic basis of migratory traits.

Here we focus on identifying the genes and signaling pathways behind the components shaping the migratory phenotype in the blackcap, a well characterised migratory songbird species. We combine high-throughput-sequencing data to identify sequence variants with alternative approaches, such as gene expression profiling and characterisation of chromatin modification or epigenetic markers to investigate the extent of phenotypic variation manifested by expression differences, either through slight genetic differences or epigenetic processes.

Our core project aims to understand: Which genes harbour coding variation with relevant consequences for migratory traits, and which signalling cascades are involved in shaping the migratory phenotype?

The ideal candidate holds a PhD in Biology, has a strong background in one or several of the following areas: population genetics, computational biology, experience working with high-throughput sequencing data, and is familiar with the use of data on gene expression or epigenetic markers (scripts and analysis pipelines).

Experience in identification and characterizing of behaviourally regulated genes, avian neurobiology or genome editing are great assets, but not required. The successful candidate will participate in fundamental research questions on migratory genomics. As a central member of the group, the postdoc has good communication and organization skills and will take part in supervising students. We would especially welcome a creative postdoc who is motivated to contribute to and extends our research agenda developing own ideas. The position will be offered for 2 years with the possibility of extension, starting date is negotiable.

The Max Planck Institute for Evolutionary Biology offers a stimulating and ambitious international working environment. Excellent infrastructure is available at all

levels, including a new high-performance computer clusters and high-throughput sequencing core facilities. The MPI collaborates with the nearby Kiel University and the GEOMAR (Helmholtz Centre for Ocean Research). The town of Plön is surrounded by lakes and the Baltic Sea is nearby, offering plenty of opportunity for leisure and outdoor activities. The nearby ports of Kiel and Travemünde provide access to Scandinavia, the closest airports are Hamburg and Lübeck.

The Max Planck Society is committed to also employing handicapped individuals and especially encourages them to apply. The Max Planck Society seeks to increase the number of women in those areas where they are under-represented and therefore explicitly encourages women to apply.

Applications should include a cover letter describing your motivation to work on this project and your relevant experience, a detailed CV and copies of relevant certificates, and the contact details of three academic referees.

Please send the above as a single PDF file to liedvogel@evolbio.mpg.de.

Review of applications will start March 18th, 2019 and will continue until the position is filled. Feel free to contact me for further information.

Dr. Miriam Liedvogel

Max Planck Research Group Behavioural Genomics,

MPI for Evolutionary Biology, Plön, Germany

liedvogel@evolbio.mpg.de

http://www.evolbio.mpg.de/3004473/-group_behaviouralgenomics <https://twitter.com/-GenMig> Miriam Liedvogel <liedvogel@evolbio.mpg.de>

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 postdoc will work with Dr. Josephs to develop an independent research project. 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 3/6/2019. Please feel free to email with any questions at joseph993@msu.edu

To apply, please visit careers.msu.edu, respond to Job #562344

“Josephs, Emily” <joseph993@msu.edu>

MNS LouisianaStateU Systematics

Job Posting Title: Postdoctoral Researcher at the LSU Museum of Natural Science

Candidate will conduct research in coordination with one or more of the Curators. The candidate will also be responsible for helping with the laboratory supervision of graduate and undergraduate research assistants and management of the Museum molecular genetics core facility. Ongoing projects in the lab include systematics and population genetics studies of birds, fish, mammals, reptiles and amphibians.

Duties: 70% Conduct active lab research on a semi-independent basis. To prepare and publish scientific manuscripts under the direction of a Curator. To attend, contribute, and where necessary lead relevant meetings. To take the responsibility for planning and developing research methods and techniques within the framework of the research program. Bring new expertise to the research program. To undertake any other duties relevant to the program of research, including field work. To collaborate with research colleagues and support staff internally as appropriate to the research and to actively develop appropriate external contacts and networks rel-

evant to the project and to future funding opportunities. The person in this position is expected to be part of the Museum’s vibrant academic community, attending seminars, participating in journal clubs, etc.

30% Responsible for helping with the laboratory supervision and training of graduate, undergraduate, and high school research assistants, and management of the Museum’s shared molecular genetics facility. Ongoing projects in the lab include systematics and population genetic studies of birds, mammals, reptiles and amphibians, and fishes. Monitor laboratory cleanliness and safety. Order general lab supplies for the department. Establish and enforce lab rules and regulations, and indoctrinate new staff/students in same at beginning of each semester. Attend regular meetings with the research team and investigators as required. Work with external collaborators as agreed with the investigators.

Min Quals: Ph.D. in Biology or related discipline; Experience in molecular methods, evolutionary biology, and computational biology, strong publication record, ability to manage an active laboratory

To apply, go to: https://lsu.wd1.myworkdayjobs.com/-LSU/job/LSU—Baton-Rouge/Postdoctoral-Researcher_R00031615 Jake Esselstyn Museum of Natural Science Louisiana State University 119 Foster Hall Baton Rouge, LA 70803

phone: (225) 578-3083 fax: (225) 578-3075 <https://esselstyn.github.io> Want to support mammal research at LSU? Donate to the Alfred L Gardner and Mark S Hafner Mammalogy Fund at: <https://securelb.imodules.com/s/1585/17/-interior.aspx?sid85&gid=1&pgid=14&cid784> Jacob A Esselstyn <esselstyn@lsu.edu>

MortonArboretum Illinois Biogeography html

<pre> The Morton Arboretum invites applications for a two year postdoctoral researcher for an NSF-supported project focused on quantifying species historical range shifts and population sizes using multiple data types. The successful applicant will join an international team of researchers with expertise in mathematics/ statistics, ecology, biogeography, and population genetics. The postdoctoral researcher will collaborate with the project team to develop and implement quantitative methods to make inference about range shifts since

the last Ice Age by integrating datasets which have different characteristics and spatial and temporal resolution (environmental, paleoecological, and genetic data). The project is described at https://www.nsf.gov/awardsearch/showAward?AWD_ID59759 The Morton Arboretum is a world-class plant science research institute and public botanic garden near Chicago, USA, with research strengths in ecology, conservation, and genomics. The Morton Arboretum has ongoing collaborations with scientists at the Field Museum, University of Illinois Chicago, two National Laboratories, the Brookfield Zoo, and Chicago Botanic Garden.

Applicants should have a Ph.D. (or Ph.D. defense scheduled in the very near future) in the quantitative sciences (i.e., mathematical biology, statistics, theoretical ecology, or related fields), OR in an ecological field with demonstrated experience in quantitative ecology. Experience in Bayesian statistics, spatial modeling, state-space modeling, or mathematical modeling is preferred. Some experience in computer programming is preferred. Other desired qualifications include a strong work ethic, problem-solving and time management skills, and experience communicating scientific results. Applicants should demonstrate interest in working at the interface of statistics and ecology, and in contributing to a growing open-source project.

The postdoctoral researcher will be provided opportunities for professional development, depending on their interests, including attending international scientific meetings, and mentoring in code development and scientific ethics. Other opportunities could include involvement in outreach (e.g., curriculum development, workshop implementation), supervising undergraduate researchers, networking, and participation in workshops and short courses. The postdoctoral researcher will have freedom to identify and attend relevant opportunities, for which funding will be provided.

The position is funded for two years, with possibility for continuing support pending future funding success. The postdoctoral researcher will be based at The Morton Arboretum and will primarily work with Dr. Sean Hoban < <http://www.mortonarb.org/science-conservation/scientists-and-staff/sean-hoban> >, Dr. Andria Dawson < <http://www.andriadawson.org/> > (Mount Royal University, Calgary), and Dr. Adam Smith < <http://www.earthskysea.org/> > (Missouri Botanical Garden). The position will require some travel to work with collaborators at Mount Royal University and the Missouri Botanical Garden, as well as attend team meetings and workshops. All travel costs are covered by grant funds.

Application materials must include four documents con-

catenated into two PDFs as follows. Relevant qualifications and skills should be clearly highlighted in the cover letter and CV.

One document to include:

-
1-2 page cover letter describing your qualifications and your interest in the project (project is described at https://www.nsf.gov/awardsearch/showAward?AWD_ID59759) -

evidence of scientific outputs (e.g. writing samples such as publications, dissertation, unpublished manuscripts, technical reports) -

names and contact information for three references

Second document to include:

-
CV/Resume

Applications may be submitted until the position is filled; applications received by April 15 are guaranteed consideration. A start date of Fall 2019 or earlier is preferred. Applicants must apply at careers.hireology.com/themortonarboretum/. Inquiries about the job or the application process are welcome- please contact Dr. Sean Hoban (shoban@mortonarb.org), Dr. Adam Smith (adam@earthskysea.org), or Dr. Andria Dawson (andria.dawson@gmail.com).

The Morton Arboretum is an equal opportunity employer committed to achieving a diverse workforce.

*Colleen Emrick * | Human Resources Specialist The Morton Arboretum | 4100 Illinois Route 53 | Lisle, Illinois 60532 T 630-719-7997 | *cemrick@mortonarb.org* | mortonarb.org

Colleen Emrick <cemrick@mortonarb.org>

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NHM London Macroevolution

Postdoc position in Macroevolution at the Natural History Museum, London, UK

Project title:

Molecules meet fossils - an integrated approach to studying palaeodiversity

Project summary:

An exciting opportunity has arisen for a Postdoctoral Research Assistant to join the Leverhulme Trust-funded project 'Molecules meet Fossils - an integrated approach to studying palaeodiversity' to study large-scale macroevolutionary patterns and processes in cheilostome bryozoans. In this project we are analysing fossil evidence and molecular data simultaneously to produce a time-calibrated phylogeny of cheilostome bryozoans using a variety of analytical approaches (tip and node calibration; fossilized-birth-death process). Specifically, we are testing whether the origins of morphological and functional innovations resulted in an increase in diversification and to what extent abiotic factors influenced speciation and extinction rates.

You will be working closely with a second Researcher (Molecular Phylogeneticist), and with the wider multidisciplinary team consisting of the PI, Co-Is and a network of international collaborators. You will specifically lead on the analyses that combine fossil evidence, molecular and morphological data, and trait- and abiotic paleoenvironmental data in order to study speciation and extinction rates and diversification dynamics. As part of this, you will assemble a dataset of large-scale abiotic factors (climate, tectonic activity, meteorite impacts, etc).

This project provides a great opportunity to apply the latest macroevolutionary analytical approaches to an animal group with an extensive fossil record and well-preserved traits. We are looking for someone who has a PhD in Evolutionary Biology or Palaeobiology, with excellent skills in macroevolutionary analysis. Able to work on your own initiative, you are also motivated to work in a multidisciplinary team.

Please kindly note that the successful candidate will start on 3 June 2019

For more info and to apply: goo.gl/udET6H

For information queries, please contact

Andrea Waeschenbach (andr3@nhm.ac.uk) or Natalie Cooper (natalie.cooper@nhm.ac.uk)

Andrea Waeschenbach <a.waeschenbach@nhm.ac.uk>

Porto Portugal Elasmobranch Genetic Diversity

We are currently accepting applications to fill a 30 months contract for a PhD researcher on the topic of

Elasmobranch Immunogenetics, at CIBIO-ICETA - Research Centre in Biodiversity and Genetic Resources, Porto, Portugal. The position is part of a 3-year research project (E-IMUNO) involving CIBIO as well as the Portuguese Marine and Atmospheric Institute (Instituto Português do Mar e da Atmosfera, IPMA), the Interdisciplinary Centre of Marine and Environmental Research (CIIMAR), and the University of Maryland.

The project main goals are to study the genetic diversity of immunogenes in Elasmobranchs as an alternative to neutral molecular markers in improving the resolution of population structure assessments, as well as aiming at inferring the spatial scale at which differentiation at immunogenes occurs in species with distinct ecological traits (e.g. habit and habitat).

Preferred candidates must possess a PhD, and

a) Demonstrated scientific and/or professional experience in the area of Population Genetics/Genomics, and/or Immunogenetics. b) Experience in the bioinformatics analysis of next-generation sequencing (NGS) data (genomics and/or transcriptomics), preferentially of eukaryotes, including bash, R and/or python programming languages. c) Experience in molecular genetics laboratory methods (e.g. DNA extraction, PCR, sequencing). d) Experience in amplicon sequencing using NGS platforms will be considered a plus.

Please see more details using the link: <http://www.eracareers.pt/opportunities/index.aspx?task=-showAnuncioOportunities&jobId0425&lang=pt&idc=1>
Deadline for application submission is February 28th, 2019.

– Ana Veríssimo, PhD Researcher

CIBIO - Research Centre in Biodiversity and Genetic Resources Campus Agrário de Vairão, Rua Padre Armando Quintas 4485-661 Vairão, Portugal

<http://orcid.org/0000-0003-3396-9822> Ana Verissimo <verissimoac@gmail.com>

Prague Evolutionary Immunology

Dear colleagues,

The Evolutionary and Ecological Immunology (EEI) group at the Faculty of Science, Charles University, Prague, is currently advertising a 1-year (extendable) PostDoc position in avian evolutionary immunology with deadline for applications 17th February 2019.

I would be grateful if you could circulate the following advertisement at relevant fora or pass it to whom it may concern.

PostDoc project: Diversified cytokine regulation of inflammation in parrots and passerine birds

Available from April/May 2019 to June 2020 (the starting date is flexible; the contract can be prolonged) Application deadline: 17th February 2019

Cytokines are protein signalling molecules that evolve to precisely regulate immunological processes in vertebrates. Several cytokines modulate inflammation, a well-known 'double edged sword' of immunity that can clear a pathogen infection as well as kill the host. Being soluble they have the capacity to systemically affect various tissues, including other physiological systems involved in self-maintenance and reproduction. In this project we are interested in describing the effect of inflammation on brain function and cognition in two related avian clades - the passerine birds and parrots.

The objective of this PostDoc project is to characterise tissue-specific cytokine expression changes linked to local and/or systemic inflammation in the selected taxa of birds. A biodiversity-based approach will be adopted to reveal interspecific and intraspecific variation in the selected cytokine genes. The main model species of the research will be the budgerigar (*Melopsittacus undulatus*), the zebra finch (*Taeniopygia guttata*), the great tit (*Parus major*) and the house finch (*Haemorrhous mexicanus*). Additional species will be included for interspecific comparison. Methods such as tissue-specific RNA-seq, RT-qPCR and proteomic analysis of cerebrospinal fluid through gel-free quantitative LC-MS/MS will be used (includes wet lab). Focusing on birds that represent superior models for research in cognition to rodents (passerines and parrots), this PostDoc project opens new possibilities for interdisciplinary research of neuroimmunology as well as to understanding the evolutionary processes forming immune defence in vertebrates.

Requirements: We seek for a researcher with experience in molecular genetics, evolutionary genetics, immunology and/or zoology - PhD degree in one of these or related fields and good English language skills (at least basic).

Offers: We offer a Research Fellow position at the Department of Zoology, Faculty of Science, Charles University based in Prague, Czech Republic, EU. This is a full time, ~year contract starting from April-May 2019 (flexible), ending on 31.5. 2020 (flexible, can be extended based on mutual agreement). Salary: 26,000-34,000 CZK per month*# (320,000 CZK-400,000 12,500

* 16,000 per annum; * standard local salary, fully sufficient to cover living costs in Prague; # the final salary will be adjusted at specific check points based on research productivity). The research fellow will be part of a young and enthusiastic interdisciplinary and international team (<http://web.natur.cuni.cz/zoologie/biodiversity/eei/people>) and where she/he will be supervised by Dr. Michal Vinkler (<http://web.natur.cuni.cz/zoologie/biodiversity/eei/people/#post-73>). We expect at least two articles being published in international peer-review journals in the period of two years from the beginning of the fellowship. Active participation at international scientific conferences will be encouraged and supported. The research fellow will also contribute to the supervision of students as needed.

Application: Please send (1) CV including a list of publications, (2) copy of PhD diploma, (3) motivation letter, and (3) contact details for 2-3 referees (references) to Dr. Michal Vinkler (michal.vinkler@natur.cuni.cz) by 17th February 2019.

About: Charles University was founded in 1348, making it one of the oldest universities in the world. Yet it is also renowned as a modern, dynamic, cosmopolitan and prestigious institution of higher education. It is the largest and most renowned Czech university, and it is also the best-rated Czech university according to international rankings. There are 17 faculties at the University, plus 3 institutes and 6 other centres. The Faculty of Science was established in 1920 as the fifth faculty of Charles University. It currently has 29 departments, 3 museums and a Botanical Garden. The Laboratory for Evolutionary and Ecological Immunology (team leader Dr. Michal Vinkler) at the Department of Zoology is oriented at research in animal defence against infectious

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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>

SanAntonio PrimateGeneticVariation

Southwest National Primate Research Center (SNPRC), Texas Biomedical Research Institute, San Antonio, TX
Postdoctoral Researcher

19-023 Postdoctoral Scientist - Population Health

Texas Biomed is searching for an exceptional postdoctoral scientist to work on understanding the consequences of genetic variation in pedigreed primate populations. The position will be in the Southwest National Primate Research Center (SNPRC) Genomics and Data Science Core, which functions to support and advise the SNPRC on its non-human Primate (NHP) genomics resource and research activities. Over the last 50 years the SNPRC has developed several large, pedigreed, non-human primate colonies (baboons, rhesus macaque, and marmoset). Animals in these pedigrees have been extensively characterized at the genetic and phenotypic level. The successful applicant will work closely with a team of investigators to perform population and statistical genetic analyses, to support genetic characterization of the NHP colonies and develop breeding strategies to maintain genetic diversity.

EDUCATION/EXPERIENCE/SKILLS: Required: Doctoral degree. Experience with next generation sequencing data (genomic, transcriptomic or epigenetic) and statistical or population genetic analysis is essential. Candidates with a strong bioinformatics background and knowledge of scientific programming languages (for example, R, python, C++) are strongly encouraged to apply.

OTHER: This is a full-time salaried (exempt) position. Texas Biomed business hours are Mondays through Fridays 8:00 a.m. to 5:00 p.m. Texas Biomed is committed to a drug-free workplace. Pre-employment drug screen is required.

Application packets are accepted electronically or in hard copy. A completed application packet is a requirement for all positions. Incomplete applications will not be accepted. Equal Employment Opportunity/M/F/Disability/Protected Veteran Status

<https://www.txbiomed.org/employment/job-opportunities/postdoctoral-scientist-19023/> Shelley A. Cole, Ph.D. Co-Lead, Population Health Lead, Genomics and Data Science Core, SNPRC Texas Biomedical Research Institute Mailing address: PO Box 760549, San Antonio, TX 78245-0549 Shipping address: 8715 W. Military Dr., San Antonio, TX 78227-5302 scole@txbiomed.org phone: (210)-258-9688 FAX: (210)-258-9131

scole@txbiomed.org

Seattle Microbiome

Beta Hatch, a leader in the mass production of quality insects as feed, is seeking an experienced microbiologist with a background in microbiome research. As part of our R&D division, we are looking to harness the power of the insect gut to breakdown harmful toxins in agricultural waste by-products, using host-mediated selection. The position is open to post-doctoral candidates and other qualified researchers.

Company Beta Hatch is pioneering a new industry in agriculture: Insects as animal feed. Since 2015, the company has been growing insect protein to feed aquaculture and poultry at Washington's first insect farm. Nutrient balanced fertilizer is a by-product of our process. We are industrializing insects to transform organic by-products, combining our expertise in entomology and mechanical engineering to scale production, automate, and control costs. Our goal is to disrupt the \$400B animal feed industry and provide more sustainable nutrients for our food systems. For more information on Beta Hatch go to www.betahatch.com Role The microbiology postdoctoral or PhD-level research scientist will report directly to the CSO and be central to developing new probiotic products for Beta Hatch insects. Specific objectives include analysis of existing microbiome data, development of protocols for microbiome cultivation, tracking the evolution of microbiome communities, experimentation with microbial transfers between individuals and developing a long-term strategy for probiotics in insects. This position will be based at Beta Hatch facilities in SeaTac, WA (2019-2020) and Cashmere, WA (2020).

Beyond technical skills, the researcher must be able to perform well in a fast-moving startup company and handle multiple priorities. Candidates must be self-motivated, become well-versed in the field and rapidly learn new techniques. Excellent communication skills are a requirement.

Primary responsibilities include: - Analysis of existing and future gut microbiome data - Development of protocols for cultivating and transferring gut microbiomes from donor to receipt insect hosts - Maintenance of specialized insect colonies used for study - Development of stable probiotics for commercialization

Qualifications - PhD in microbiology, genomics or related field, additional experience preferred. - Research experience on microbiomes is essential, with a prefer-

ence for candidates who have experience working with insects. - Ability to maintain a sterile working environment in a non-traditional lab setting. - Expertise in software(s) used for microbiome analysis and presentation. - Excellent planning and organizational skills. - Excellent verbal, written and graphic communication skills. - Must be excited about evolution and bugs!

For more details, and confidential inquiries please contact: Dr. Hans Kelstrup, Chief Science Officer
hans@betahatch.com

Hans Kelstrup <hans@betahatch.com>

StockholmU LifeHistoryEvolution

Postdoctoral Fellow in Evolutionary ecology - Life history evolution across climate clines at the Department of Zoology < <https://www.su.se/zoologi/english/> >. Closing date: 28 February 2019.

The Department of Zoology is a vibrant international community, consisting of five divisions: Ecology, Ethology, Functional Morphology, Population Genetics, and Systematics and Evolution. The department has a long tradition of strong interactions and collaborations between the five divisions.

Project description We are inviting applications for a 2-year post-doctoral position in Karl Gotthard's lab that is focusing on the evolution of life history and plasticity in seasonal environments, using primarily natural populations of butterflies as model organisms. The project is funded by the Swedish Research Council (VR).

The Post-doc will work within the project 'Life history evolution across climate clines' and focus on the evolution of life cycle timing in situations where insect species show shifts in the number of annual generations, i.e. when there are shifts in voltinism. As model systems we are using several species of butterflies where the phenotypic mechanism of life cycle regulation in response to photoperiod and temperature is well understood, and where we have genomic resources to explore the genetic basis for these adaptations. We are also exploring life cycle adaptations and potential voltinism shifts in the expanding range margins of butterfly species that are presently expanding their distributions northwards. At the northern range limits these expanding species are expected to experience strong selection for changes in how photoperiod regulates life cycle timing and voltinism. These projects will provide novel insights into

ecological consequences of the interaction between the two most prominent effects of climate change on natural populations: northward range expansions and selection for changes in seasonal life cycle regulation.

The project will involve both field and laboratory work to study the ecology, genetics and physiology of adaptations for seasonal life cycle timing in natural population of temperate butterflies. The post-doc will sample replicated populations and do controlled laboratory studies of the phenotypic adaptations and associated genetic variation that underlie seasonal life cycle timing. The genetics will be studied by quantitative genetic methods and with a combination of populations crosses and genomics. Physiological manifestations of the different timing adaptations will be investigated using respirometry. An important part of the project is also to set up reciprocal transplant experiments in outdoor cages to test the adaptive significance of local difference in these adaptations.

Research group Karl Gotthard's research group is funded by the Swedish Research Council (VR) and the Bolin Centre for Climate Research at Stockholm University, and presently it consists of three PhD students. We collaborate closely with the group of Dr. Philipp Lehmann that includes two additional PhD students. We are also collaborating with Dr. Chris Wheat and his group at the division of population genetics at the Department of Zoology. The new Post-doc will be expected to take part in these collaborations.

Main responsibilities The Post-doc will participate in the ongoing projects and there are several potential directions for the main project of the new post-doc. Depending on the interests and qualifications of the successful candidate the exact focus of this project will be a matter of discussion. The Post-doc will be highly encouraged to develop his/her own ideas within the research field.

Qualification requirements Postdoctoral positions are appointed primarily for purposes of research. Applicants are expected to hold a Swedish doctoral degree or an equivalent degree from another country. We are looking for highly motivated candidates with a relevant PhD and a strong background in evolutionary ecology, plasticity, life history theory, and/or ecological genetics. The suitable candidate should have a proven record of successful publishing in general ecological and evolutionary journals, excellent analytical skills, and experience with quantitative analyses of life history traits (or other traits of interest). In addition, we expect the candidate to be able to work independently, but also to develop, and contribute to, collaborations within and outside of the research group. A strong background in statistical

analysis, experience in working with insects in the lab and in the field, as well as having a valid driving license, are all especially meriting.

Assessment criteria The degree should have been completed no more than three years before the deadline for applications. An older degree may be acceptable under special circumstances, which may involve sick leave, parental leave,

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Switzerland HostMicrobiomeInteractions

Eawag, the Swiss Federal Institute of Aquatic Science and Technology, is an internationally networked aquatic research institute within the ETH Domain (Swiss Federal Institutes of Technology). Eawag conducts research, education and expert consulting to achieve the dual goals of meeting direct human needs for water and maintaining the function and integrity of aquatic ecosystems.

The Department of Aquatic Ecology seeks to recruit a Postdoc in Evolutionary Ecology

to study the effects of host-microbiome interactions in adaptation to environmental stress.

The microbiome is known to influence organismal fitness, via effects on behaviour, dietary interactions and emergence of disease. However, to what extent host-microbiome interactions mediate responses to environmental stress, such as induced by anthropogenic changes (climate change and chemical pollution), is poorly understood. The goal of this project is to bridge this gap using the freshwater isopod (*Asellus aquaticus*) as a model system. The work involves next generation sequencing, field surveys, as well as manipulative experiments. This project is part of a wider effort to establish *A. aquaticus* as a model system and a part of the postdoc's responsibilities is to aid in this. The postdoc will be based at Eawag DÄÄ¼bendorf, Switzerland.

A PhD degree in biology or related area is mandatory. The ideal candidate has a strong interest in evolutionary ecology and microbiomes, previous experience with molecular genetic tools, laboratory rearing experiments

and fieldwork, is independent and works well in a team. This Eawag Discretionary Funds funded position is funded for two years and will be filled as soon as a suitable candidate is found (earliest starting date 1st May, 2019).

The Department of Aquatic Ecology is situated in DÄÄ¼bendorf (near ZÄÄ¼rich) and offers an enjoyable and dynamic working environment with broad expertise in ecology and evolution (<https://www.eawag.ch/en/department/eco/>). The working language is English. The project is conducted in collaboration with Blake Matthews, Christoph Vorburger, Jukka Jokela and other researchers in our 'Asellus consortium' (with interest in both basic and applied questions), and the Genetic Diversity Center (GDC) of ETH-Zurich. For further information consult Dr. Katja RÄÄ¼nen (katja.rasanen@eawag.ch) or Personal webpage: <http://www.eawag.ch/~rasaka> Additional information Eawag offers a unique research and working environment and is committed to promoting equal opportunities for women and men and to support the compatibility of family and work. Applications from women are especially welcome. For more information about Eawag and our work conditions please consult www.eawag.ch and www.eawag.ch/en/aboutus/working/employment. The closing date for applications is 20th March 2019.

We look forward to receiving your application, including an application letter (max. 2 pages, with a statement of research interests and relevant experience), a CV and a list of publications, copies of academic qualifications and the names and e-mail addresses of three referees. Please submit your application via the Eawag Jobs & Career webpage, any other way of applying will not be considered. The link below will take you directly to the application form.

<https://apply.refline.ch/673277/0685/pub/-1/index.html>

“RÄÄ¼nen, Katja”
<Katja.Rasanen@eawag.ch>

TexasAMU PlantEvolution

Postdoctoral Research Position in Plant Science, Texas A&M University-Corpus Christi, TEXAS, USA

Description: There is a postdoc position in plant science available in the Daru lab (<https://barnabasdaru.com>) at Texas A&M University-Corpus Christi, Texas, USA.

The Postdoctoral Research Associate in Plant Science

will be responsible for using plant diversity data sources such as collections record to address topics including ecological niche modeling, biogeography, assessing systematic and phylogenetic diversity, climate change, species invasions across a landscape/seascape, plant-insect and/or -pathogen interactions, and conservation.

Responsibilities:

- i) Develop ecological niche models at regional and global scales for a variety of plant taxa.
- ii) Harvest biodiversity data e.g. traits from online sources.
- iii) Write, edit, and review research articles.
- iv) Advise students.
- v) Perform other duties as assigned.

Qualifications:

- Doctoral Degree in botany, horticulture, plant ecology or closely related field.
- Related experience in this field.
- Publications in the domain of plant diversity: systematics, phylogenetic diversity, biogeography, global change, conservation.
- Strong statistical and computational backgrounds using R, Python, ArcGIS, mostly implemented using high performance- computing cluster.
- Intermediate skills in Microsoft Office Suite (Word, Excel, PowerPoint, and Outlook).
- Excellent verbal and written communication skills.
- Ability to work and interact with University faculty, students, and staff in diverse topics. Ability to multi-task and work cooperatively with other team members.
- Basic data mining and statistical analysis knowledge.
- Strong publication track record.

Preferred Qualifications:

- Two (2) years related experience.
- Strong statistical and computational backgrounds (including database manipulation).
- Large-scale meta-analyses are encouraged, but projects to develop bioinformatics pipelines to make collections more broadly accessible.
- Experience with high performance-computing cluster for data analysis.

To apply, complete an online application by visiting <https://goo.gl/cjEKS4> Application review will begin on March 29, 2019, and will continue until the position is filled.

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> "Daru, Barnabas H." <barnabas_daru@fas.harvard.edu>

UBarcelona EvoDevo

3-year POSTDOC + starting grant OPEN CALL to join our EvoDevo lab working on #RNAseq #CRISPR #RNAi #EmbryoDevelopment #Heart-Muscle #Genomics #UrochordateOikopleura #GeneLoss #MarineEmbryoDefensome #ClimateChange

REQUERIMENTS: PhD defense between January 1st 2011 ' December 31st 2016. INCORPORATION: before February 2020 BEATRIU de PINOS program DEADLINE: March 4th 2019 CONTACT: Cristian Cañestro ASAP canestro@ub.edu More info in <http://bit.ly/-2S1PNa8> Cristian Cañestro <oikocris@gmail.com>

UBristol UK PhylogeneticsCulturalEvolution

Postdoc position in Cultural Phylogenetics

Applications are invited for a position of Postdoctoral Research Assistant with expertise in phylogenetic analysis of cultural data. The post is a PDRA position in a European Research Council Starting Grant project entitled 'VariKin: Cultural Evolution of Kinship Diversity' led by Prof Fiona Jordan in the Department of Archaeology & Anthropology at the University of Bristol. We require an individual with expertise in phylogenetic comparative methods and the analysis of large linguistic and cultural datasets. The project team has amassed a large global database of kinship terms, and the objective for this role is to explore the cultural evolutionary dynamics and patterns of kinship terms.

The successful candidate will primarily be responsible for the design, implementation and analysis, and writing-up of two investigations. The post is offered on an open ended basis with fixed funding for 12 months. The project is due to come to an end May 31st 2020.

You will have a PhD in evolutionary approaches to anthropology, biology or language, or a similar field. It is essential that you have skills in a range of phylogenetic inference and comparative methods, particularly BayesTraits, NeighbourNet, and relevant R packages. Broad experience with quantitative and computational data analysis (preferably using R), and with parallel/cluster computing, would be highly desirable. There will be an opportunity for further skills training in the PI's international network. Preference will be given to candidates who have a background in linguistics or anthropology, or who have worked with cultural datasets, but biology backgrounds are welcome.

You will require excellent organisational, communication and presentation skills. Experience with comparative data collection from written sources, database maintenance, and careful data curation are essential. You should demonstrate that you can engage in interdisciplinary collaborative work with the other VariKin team members. Your particular role will work closely alongside the PI and PhD student investigating kinship system evolution across cultures, but there is scope to contribute to other strands in the project (developmental field studies of children's kinship knowledge, and cross-linguistic corpus analyses).

See the further particulars and apply through the UoB portal here. [http://www.bristol.ac.uk/jobs/find/details.html?nPostingID4494&nPostingTargetID8977&option\(&sortASC&respr=1&ID=Q50FK026203F3VBQBV7V77V83&LOV3"90&Resultsperpage&lg=UK&mask=uobext](http://www.bristol.ac.uk/jobs/find/details.html?nPostingID4494&nPostingTargetID8977&option(&sortASC&respr=1&ID=Q50FK026203F3VBQBV7V77V83&LOV3) Please provide a cover letter that describes your skills and experience, your research interests, and details how you meet the criteria; and your current CV.

For informal enquiries please contact Fiona Jordan (Fiona.jordan@bristol.ac.uk) and see more of the project at <http://excd.org/varikin> For more information on the Department of Anthropology and Archaeology see: <http://www.bristol.ac.uk/archanth/> Closing date for applications March 5th.

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Fiona Jordan < <http://www.bristol.ac.uk/school-of-arts/people/fiona-m-jordan> >

Professor of Anthropology

Evolution of Cross-Cultural Diversity Lab < <https://excd.org> >

Department of Anthropology and Archaeology

School Research Director

sart-srd@bristol.ac.uk

School of Arts

University of Bristol 43 Woodland Road Bristol BS8 1UU Tel: +44 (0)117 954 6078

twitter: @fiona_jordan

Secretary, Cultural Evolution Society <https://culturalevolutionsociety.org/> Fiona Jordan
<Fiona.Jordan@bristol.ac.uk>

UCalifornia Davis EvolutionaryInnovations

A postdoctoral position is available in Artyom Kopp's lab in the Department of Evolution and Ecology, University of California ' Davis, USA. — The project will focus on using single-cell sequencing to study the evolution of developmental pathways responsible for the origin of new morphological structures. — Our lab studies evolutionary innovations, sexual dimorphism, and the evolution of genetic regulatory circuits in *Drosophila*. We use a wide range of approaches including developmental biology, comparative genomics, phylogenetics, and quantitative/population genetics. — Over time, postdocs will be encouraged to develop new research directions reflecting their own interests, within the broad field of developmental and evolutionary genetics. — Candidates should have demonstrated expertise in genomics, developmental biology, or evolutionary genetics. — Interdisciplinary training and interests are especially welcome. — Our lab and the Department of Evolution and Ecology provide a friendly and supportive atmosphere and many opportunities for collaboration. — If interested, please contact Artyom Kopp (akopp@ucdavis.edu) with a CV, a statement of research interests and experience, and the names of three references.

Artyom Kopp Professor, Department of Ecology and Evolution Director, Center for Population Biology University of California - Davis One Shields Ave Davis CA 95616 office (530) 752-8657 lab (530) 752-8328 fax (530) 752-9014 akopp@ucdavis.edu <http://kopplab.ucdavis.edu/>

akopp@ucdavis.edu

UCalifornia SantaCruz EvolutionaryGenomics

The Corbett-Detig lab is seeking applicants for a post-doctoral researcher position.

Our group studies an array of questions broadly focused on understanding how natural selection shapes the evolution of the genome. Some ongoing topics include (1) gene regulatory impacts and evolution of chromosomal inversions, (2) computational inference and empirical analysis of admixed populations, (3) direct measurement and quantification of selection on gametes, and (4) the evolutionary impacts of transcription associated mutagenesis in highly expressed genes.

The ideal candidate will have a Ph.D., a background in evolutionary genomics, skills in computational and molecular biology, and a strong track record of publication commensurate with their career stage.

The position start date is flexible. We will start reviewing applications on March 2nd and will continue until the position is filled.

Interested applicants should submit a CV, brief statement of past and future research interests, and contact information for three references to Russ Corbett-Detig (russcd@gmail.com). Informal inquiries are also welcome.

Russ Corbett <russcd@gmail.com>

UCLouvain EvolutionDispersalPlasticity

3-year Postdoctoral research position - Dispersal plasticity in microcosms

We are accepting applications for a 3-year early researcher postdoc position beginning October 2019 (later starting date possible) to work on a project focused on the evolutionary causes and consequences of dispersal plasticity using experimental microcosms.

Growing evidence suggests that instead of dispersing randomly, individuals can modify their dispersal decisions

depending on the environmental context to selectively stay in or disperse toward habitats that maximize their performance. This process, named habitat choice, has potential major implications for ecological and evolutionary dynamics (see for instance Jacob et al. 2017 *Nature Ecol. Evol.*; Jacob et al. 2018. *PNAS*).

The postdoc will join a dynamic international team whose research interests range from understanding the genetic mechanisms underlying individual phenotypes, including dispersal, to the consequences of variability in dispersal strategies and other phenotypic traits for populations and communities, using both theory and experiments. He/she will primarily focus on quantifying intraspecific variability in dispersal strategies, identifying the environmental conditions that favour dispersal plasticity, and quantifying its consequences for ecological and evolutionary dynamics, using microcosms of a ciliate, *Tetrahymena thermophila*. He/she will furthermore be encouraged to contribute to the project objectives by developing synergistic projects based on their own interests and expertise. He/she will also have the opportunity to closely interact with theoreticians in order to set-up experiments to validate or reject theoretically-derived predictions.

The position will be co-supervised by Prof. Nicolas Schtickzelle (UCLouvain, Belgium) and Dr. Staffan Jacob (Theoretical and Experimental Ecology Station, CNRS, France). Experiments will be conducted in both labs depending on the appropriate equipment and expertise, including interactions with the other researchers collaborating on the project. We are looking for a highly motivated and dynamic candidate with deep conceptual interests in evolutionary ecology and ideally in phenotypic plasticity and dispersal. Previous experience in microbiology, molecular biology and cytometry are beneficial but not mandatory.

Applicants should send a cover letter (1-2 pages describing motivation for the present project and previous and current research activities) and CV (including list of publications) to Prof. N. Schtickzelle (nicolas.schtickzelle@uclouvain.be) and Dr S. Jacob (staffan.jacob@sete.cnrs.fr), before March 29, 2019. Interested candidates that are currently finishing their PhD are strongly encouraged to apply. Short-listed candidates will be interviewed in late April. Note that specific funding rules for this position limit eligibility to early stage researchers (<6 years post-PhD defense) who have lived less than 12 months in Belgium during the past 3 years.

Related publications:

Jacob, Laurent, Haegeman, Bertrand, Prunier, Legrand, Cote, Chaine, Loreau, Clobert, Schtickzelle. 2018. Habi-

tat choice meets thermal specialization: competition with specialists may drive suboptimal habitat preferences in generalists. PNAS

Cote, Bestion, Jacob, Travis, Legrand, Baguette. 2017. Evolution of dispersal strategies and dispersal syndromes in fragmented landscapes. *Ecography*

Jacob, Legrand, Chaine, Bonte, Schtickzelle, Huet, Clobert. 2017. Gene flow favours local adaptation under habitat choice in ciliate microcosms. *Nature Ecology and Evolution*

Pennekamp, Mitchell, Chaine, Schtickzelle. 2014. Dispersal propensity in *Tetrahymena thermophila* ciliates V a reaction norm perspective. *Evolution*

Prof. Nicolas Schtickzelle UCLouvain, Earth and Life Institute 1348 Louvain-la-Neuve, Belgium www.nicolas-schtickzelle.net Dr Staffan Jacob Theoretical and Experimental Ecology Station UMR 5321 CNRS-UPS 2 route du CNRS, 09200 Moulis, France jacob-staffan.wordpress.com

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Staffan Jacob CNRS Researcher

Theoretical and Experimental Ecology Station UMR 5321, CNRS 2 route du CNRS, 09200 Moulis

Website: jacobstaffan.wordpress.com Twitter: @Staffan-Jacob < <https://twitter.com/staffanjacob> >

[staffan.jacob <jacobstaffan@gmail.com>](mailto:jacobstaffan@gmail.com)

UCopenhagen AncientDNA

Postdoctoral fellowship in population and quantitative genetics:

The Department of Biology, Faculty of Science, at University of Copenhagen invites applications for a 3-year postdoctoral fellow position at the University of Copenhagen, in the research group of Fernando Racimo. The Racimo group focuses on using ancient and present-day genomes to understand patterns of selection and admixture over time, and to develop methods to jointly analyze population and functional genomic data. We are particularly interested in human evolution, on both an ancient scale (i.e. modeling the joint history of Neanderthals, Denisovans and modern humans) and a recent scale (i.e. finding functional variants that were selected in humans during major cultural transitions, like the advent of agriculture).

Objectives

The candidate will be able to work with unprecedentedly large ancient genomic dataset from a period spanning the last 50,000 years of human history, in combination with functional datasets and medical biobanks. The focus of the project will be on integrating ancient genomics with population genetic theory and quantitative genetic resources, to learn about how humans adapted to their environments as they expanded across the globe, with a particular focus on complex trait evolution.

The candidate will have freedom to design their project in consultation with the advisor, and the project can range from theoretical methods development to empirical data analysis. Research topics can include: 1) Utilizing trait-association data from metabolic, neurological and anthropometric studies to learn about the evolution of complex traits in ancient genomes from the Paleolithic, Neolithic, Bronze Age and Iron Age; 2) Developing methods to detect genes under positive selection when working with multiple populations related to each other in complex ways; 3) Searching for functional variants that were positively selected in humans over time during major cultural transitions, like the advent of agriculture; 4) Testing among different models of evolution on trait-associated variants over time.

Research environment

The candidate will work at the Lundbeck GeoGenetics Centre, a world-leading institution in ancient DNA studies. The position is for 3 years, and is fully funded. The candidate will have to opportunity to collaborate with leaders in the fields of paleogenomics, population genetics and quantitative genetics, like Eske Willerslev, Rasmus Nielsen, Martin Sikora and Morten Allentoft. The University of Copenhagen is ranked the 29th best university in the world according to Academic Ranking of World Universities 2018 (<http://www.shanghairanking.com/-ARWU2018.html>). It provides excellent academic programs in biology, statistics, computer science and mathematics. The GeoGenetics Centre is located in central Copenhagen, Denmark - a city that is ranked among the most liveable cities in the world (see e.g. <https://placebrandobserver.com/monocle-quality-of-life-survey-25-most-liveable-cities-2018/> at 5:56).

Qualifications

The candidate will have a MD, PhD, or equivalent doctorate, with a strong background in one or more of the following areas: population genetics, human genetics, genomics, computational biology, bioinformatics, machine learning, data science, mathematics and/or statistics. The ideal candidate will demonstrate a working profi-

ciency in programming and statistical computing (e.g. experience in Python, R, C/C++, Java or Julia) and have experience handling large data sets in the UNIX operating environment.

Further information on the Department is available at geogenetics.ku.dk. Inquiries about the position can be made to Assist. Prof. Fernando Racimo (fracimo@snm.ku.dk) or Prof. Eske Willerslev (ewillerslev@snm.ku.dk).

The position is open from 1 May, 2019 or as soon as possible thereafter.

The University wishes our staff to reflect the diversity of society and thus welcomes applications from all qualified candidates regardless of personal background.

Terms of employment The position is covered by the Memorandum on Job Structure for Academic Staff.

Terms of appointment and payment according to the agreement between the Ministry of Finance and The Danish Confederation of Professional Associations on Academics in the State.

The starting salary is currently up to DKK 426.625 including annual supplement (+ pension up to DKK 72.952). Negotiation for salary supplement is possible.

The application, in English, must be submitted electronically by clicking APPLY NOW on this link: <https://employment.ku.dk/all-vacancies/?show=148822> Please include

Curriculum vitae Diplomas (Master and PhD degree or equivalent)

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UCopenhagen InsectMicrobeEvolution

Postdoctoral Fellowship in Insect-Microbe Eco-Physiology, University of Copenhagen

The Department of Biology in the Faculty of Science at the University of Copenhagen in Denmark is offering a Postdoctoral fellowship in insect-microbe eco-physiology, commencing 1 September 2019 or as soon as possible

thereafter. The University of Copenhagen provides a top-notch research environment and the city of Copenhagen provides a vibrant cultural scene.

Scientific environment The fellowship will be part of a research project financed by an ERC Starting Grant based in the thriving research environment of the Centre for Social Evolution (<http://socialevolution.ku.dk/home/>) (embedded within the Section of Ecology and Evolution), and will involve fieldwork in the Panamanian tropical rainforests at the Smithsonian Tropical Research Institute (<http://www.stri.si.edu/>). The successful applicant will have experience and interest in ecology, evolution, physiology, microbial ecology and molecular techniques.

Project Description Insect-microbe symbioses often involve food exchange among interacting partners, but the nutritional dimensions underlying these transactions are often difficult to study. My lab has developed techniques for studying these dynamics using symbioses involving social insects as models for such inquiry. The project will focus on the remarkable lineage of fungus-farming leafcutter ants that harvest fresh vegetation and convert it into nutritional compost to produce fungal crops as food in underground nests. The postdoc will explore how these ants have managed to grow their domesticated fungi across extreme contemporary rainfall and temperature gradients and across diverse climates over millions of years. Projects will combine ecological field experiments in Panamanian rainforests and integrative laboratory studies of cultivar gene expression to resolve the mechanisms enabling resilient industrial-scale farming by leafcutter ants within diverse tropical insect communities.

Job description The position is available for a 2-year period and your key tasks as a Postdoctoral Fellow at SCIENCE are:

- To manage and carry through your research project
- Write scientific articles and grant proposals
- Disseminate your research
- To travel to and perform field research in tropical rainforests

Formal Qualifications

- PhD in Biology with good results (including publications and conference presentations)
- An interest in fieldwork, eco-physiology, microbial ecology, and symbiotic interactions
- Experience with sequencing, including -omics is desirable, but not required
- Creativity and ability to be both team-oriented and independent
- Experience with fungal culturing techniques is a plus
- Embrace of an international research environment and interdisciplinary research
- A proven record of excellent English speaking, reading and writing skills.

Terms of employment The position is covered by the

Memorandum on Job Structure for Academic Staff.

Terms of appointment and payment accord to the agreement between the Ministry of Finance and The Danish Confederation of Professional Associations on Academics in the State.

The starting salary is currently at a minimum DKK 426.625 including annual supplement (+ pension up to DKK 72.952). Negotiation for salary supplement is possible.

Application Procedure The application, in English, must be submitted electronically by clicking APPLY NOW below.

How to apply Applications must include:

- Cover letter
- Statement of research interests and reasons for applying to this position (max 2 pages)
- Curriculum vitae (including a list of publications)
- Copies of relevant diplomas and transcripts (PhD, Master and Bachelor)
- Separate reprints of 3 particularly relevant papers
- Full contact details (name, address, e-mail, telephone numbers and addresses of 2-3 professional referees).

In addition to the fulfilment of the above-mentioned qualifications, the main criterion for selection will be the research potential of the applicant, the match with the project and good interpersonal skills. Additionally, my research group and the University of Copenhagen strive to reflect the diversity of society and welcomes applications from all qualified candidates regardless of personal background.

The deadline for applications is 15 March 2019, 23:59 GMT +1.

After the expiry of the deadline for applications, the authorized recruitment manager selects applicants for assessment on the advice of the Interview Committee. Afterwards, an assessment committee will be appointed to evaluate the selected applications. The applicants will be notified of the composition of the committee and the final selection of a successful candidate will be made by the Head of Department, based on the recommendations of the assessment committee and the interview committee.

The main criterion for selection will be the research potential of the

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UdelaRochelle France BeeEvolution

16 months post doc: Defence behaviour and personality in *Apis mellifera* against the invasive predator *Vespa velutina*

Following its introduction a decade ago, the yellow-legged hornet, *Vespa velutina*, has been spreading through Europe. This invasive predator is mainly known for chasing domestic honeybees, *Apis mellifera*. Locally, predation pressure can reach 20 hornets in front of each hive. While its hunting behaviour is quite understood now, some points are still unclear especially how hornets choose their prey. Indeed, we have previously shown that the distribution of hornets within the apiary was not homogeneous and uncorrelated to honeybee colony strength. We suggest that this pattern is link to colony behaviour, some of them being probably more prone at defending themselves against this predator. Honeybee colonies behave as a superorganism and their personality traits may greatly vary among colonies. Behavioural traits like boldness, activity and aggressiveness are thus interesting to quantify, as well as the ability of the colony to recruit enough workers for defence purpose which is probably trading-off with the maintenance of foraging activity (which ensures colony survival).

The aims of this work are divers. First, it will provide new insights on how hornets adjust their hunting effort depending on prey behaviour, which opens interesting perspectives for the study of cognitive ability in prey-predator systems. Second, identifying the factors driving heterogeneous predation pressure in apiaries would be a mean to propose new pest management directions for beekeepers. Defence behaviour in honeybees has been shown to have a genetic basis thus different lineages may produce different level of defence. If confirmed, it may open perspectives for honeybee livestock selection based on behavioural traits thus limiting the impact on bee colonies.

Qualifications:

The post-doctoral fellow will be integrated in the European Arc Atlantique 'Positive' project. We are looking for a young PhD in behavioural ecology with skills in fieldwork, statistical analyses (mixed effects models) and a previous experience with social insects. Driving licence for more than 2 years is also required.

He/She will be located in UMR INRA Save at INRA

Bordeaux Aquitaine research centre (Villenave d'Ornon, 10 km from Bordeaux city). Supervision will be made by Dr Denis Thiéry (UMR 1065 SAVE, Villenave d'Ornon) and Dr Karine Monceau (La Rochelle Université, UMR 7372 CEBC, Villiers-en-Bois).

Extended deadline: March 1st; Interview: 2nd week of March (skype)

Duration: 16 months beginning in May 2019

Salary: 2000 € net/month.

Send application (CV and cover letter) to : Denis Thiéry (denis.thiery@inra.fr) and Karine Monceau (karine.monceau@univ-lr.fr)

https://www.researchgate.net/profile/Denis_Thiery
<http://www.kmonceau.fr>

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UEdinburgh Bacterial Genomic Diagnostics

Closing Date

26 February 2019

A post-doctoral fellowship is available in the University of Edinburgh with Professor J. Ross Fitzgerald and colleagues (<https://www.ed.ac.uk/roslin/lbep>). Antimicrobial resistance (AMR) is a global veterinary and public health issue. The 3 year-funded project involves a grouping of microbiologists, bioinformaticians and veterinary and human medical clinicians in the Roslin Institute, University of Edinburgh. We have demonstrated the capacity for Nanopore-based whole genome sequencing of clinical samples without the need for culture, to allow rapid diagnosis of bacterial infections and prediction of antibiotic sensitivity. The successful candidate will further develop the sequence-based technique which will be formally tested on veterinary patients with infections in a clinical setting.

In addition, the new approach will be applied to studies of bacterial evolution of AMR during infection. Candidates should have experience of Nanopore sequence generation and analysis and a PhD (or near completion) in bacterial genomics/computational biology. The Roslin Institute is a world-class centre for biomedical research of relevance to both animal and human health with a strong focus on infectious diseases. The Institute has access to state of the art research facilities for imaging, proteomics, and genomics, including high-throughput sequencing and is a major partner within Edinburgh Infectious Diseases which represents one of

the largest groupings of infectious disease scientists in Europe, with a major strategic priority of tackling the global AMR crisis (<https://www.ed.ac.uk/edinburgh-infectious-diseases/amr>).

Informal enquiries: Ross.Fitzgerald@ed.ac.uk
Full details and application information: https://www.vacancies.ed.ac.uk/pls/corehrrecruit/-erq_jobspec_version_4.display_form Relevant selected references: Votintseva et al, Same-Day Diagnostic and Surveillance Data for Tuberculosis via Whole-Genome Sequencing of Direct Respiratory Samples. *J Clin Microbiol.* 2017 55(5):1285-1298.

Professor J. Ross Fitzgerald, Chair of Molecular Bacteriology, Director of Edinburgh Infectious Diseases, The Roslin Institute, University of Edinburgh, Easter Bush, Midlothian EH25 9RG, Scotland, UK

Email: Ross.Fitzgerald@ed.ac.uk Tel: +44 (0)131 6519235 <http://www.ed.ac.uk/roslin/lbep/> The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336.

FITZGERALD Ross <ross.fitzgerald@roslin.ed.ac.uk>

UExeter Microbial Evolution

One-year postdoc position in microbial evolution University of Exeter, Cornwall Campus

Project title: "Context-dependent acquisition of antibiotic resistance mechanisms"

The dramatic increase in antimicrobial resistance (AMR) threatens the effective treatment of a wide range of infections and forms a global challenge to public health. To effectively combat AMR, it is crucial we understand the mechanisms by which it evolves. This project will test for the effects of antibiotic concentration and microbiome diversity on mechanisms of AMR evolution. Bacteria can acquire antibiotic resistance via point mutations but are also able to take up resistance genes from other strains and species. The latter process might occur at the same rate as mutation but the relative importance of these two fundamentally distinct genetic mechanisms in generating AMR is not known. The main project aim is to combine antibiotic selection with whole-genome re-sequencing in a bacterial pathogen to identify the prevalence of distinct genetic mechanisms (horizontal gene transfer versus point mutations) responsible for AMR. This project will provide fundamental data on bacterial genome evolution as well as provide a

scientific basis for pollution management.

The project is supervised by Dr. Michiel Vos (UEMS), Prof. Will Gaze (UEMS), Prof. Angus Buckling (CLES) and Dr. Ben Temperton (CLES). Work will take place in state-of-the-art microbiology labs at the ESI building at the University of Exeter's Penryn campus.

The successful applicant will possess a PhD in the field of microbiology or a related subject with demonstrable affinity with experimental evolution, molecular microbiology and genomics. You will be able to work collaboratively, communicate effectively, co-supervise students and be willing to travel on occasion to Exeter.

For detailed information see the job advert:

https://jobs.exeter.ac.uk/hrpr_webrecruitment/wrd/run/-ETREC107GF.open?VACANCY_IDp7289Nu57&WVID817591jNg&LAA USA for queries, email Michiel Vos m.vos@exeter.ac.uk

"Vos, Michiel" <M.Vos@exeter.ac.uk>

UGeorgia Plant Evolutionary Genetics

Postdoctoral position in Plant Evolutionary Genetics/Ecology, Department of Genetics, University of Georgia

Jill Andersons lab in the Genetics Department at the University of Georgia is currently searching for a highly-motivated postdoctoral associate to collaborate on an NSF-funded study of the evolutionary consequences of climate change for natural plant populations. Our lab studies the extent to which climate change imposes novel selection and disrupts long-standing patterns of local adaptation, using the subalpine mustard, *Boechera stricta*, as our focal species. Our field, growth chamber, and greenhouse studies also examine whether increased temporal variability under climate change will favor phenotypic plasticity. You can find additional information about research in the Anderson lab here: <http://andersonlab.genetics.uga.edu> The position is for one year, renewable for up to two additional years contingent upon performance. The anticipated start date is flexible, and could be as early as April 2019. The successful candidate will contribute to ongoing experiments, develop research on the genetic basis of climatic adaptation, and evaluate whether gene flow could facilitate adaptive response to climate change. This position includes a combination of fieldwork at the Rocky Mountain Biolog-

ical Laboratory (Gothic, Colorado), field collection trips throughout the western U.S., and laboratory work at the University of Georgia (Athens, GA). The postdoctoral scholar will analyze existing datasets, write and publish peer-reviewed manuscripts, and present results in seminars at UGA and scientific conferences. The postdoc will also have opportunities to develop additional research programs related to the overall objectives of the project and to gain experience mentoring undergraduate and graduate students.

Candidates must have a Ph.D. in evolutionary biology/genetics (or a related field) from an accredited university. Preference will be given to candidates with one or more of the following: (a) experience in quantitative genetics and statistical modeling, (b) experience generating and analyzing next generation sequence data, (c) successful publication record, including first-authored publications, (d) experience mentoring students and technicians, and (e) laboratory and database management skills. We value diversity in background and perspective, and we seek to promote safety in the lab and field.

TO APPLY: Please submit a single PDF that includes (1) a cover letter describing past research experience and qualifications for this position, (2) a current CV, and (3) contact information for 3 references, as well as PDFs of up to 3 manuscripts (published, in review, or in preparation), to jta24@uga.edu. Review of applications will begin immediately and continue until the position is filled. Feel free to email Dr. Anderson (jta24@uga.edu) with questions.

Jill T Anderson <jta24@uga.edu>

UGraz Evolutionary Genomics

Dear all,

University of Graz, Austria, is seeking to appoint an assistant professor (postdoc) in evolutionary biology with a focus on genomic data analysis (6-year term). For details, please see:

<https://jobs.uni-graz.at/en/MB/43/99/4711> (english)
<https://jobs.uni-graz.at/de/MB/43/99/4710> (german)

Deadline: February 20, 2019

Kristina Sefc (kristina.sefc@uni-graz.at)

“Sefc, Kristina (kristina.sefc@uni-graz.at)”
 <kristina.sefc@uni-graz.at>

U Groningen Theoretical Biology

Postdoc position in Theoretical Biology at Groningen Institute for Evolutionary Life Sciences, University of Groningen, The Netherlands

Project title:

Temperature fluctuations as universal engine for evolutionary diversification of sex-determination: a theoretical study using mechanistic models

Project summary:

Sexual reproduction is ubiquitous in the animal kingdom. Although gonadal developmental pathways are often conserved over deep evolutionary time, the primary regulators that determine the sexual pathway vary enormously, sometimes even within species. Many hypotheses have been proposed to explain the high evolutionary turnover rate of sex-determination (SD) mechanisms, including sexual antagonism, maternal effects and meiotic drive. However, these theoretical models do not provide a universal explanation for the proliferation of SD mechanisms. Recent evidence suggests a universal role for temperature fluctuations as a main driver of SD diversity. We propose that existing theory of SD evolution needs a major overhaul by explicitly integrating mechanistic and thermodynamic aspects of gene regulatory networks with an ecological context that explicitly captures spatio-temporal fluctuations in temperature. We will develop new models that incorporate evolvable temperature sensitivity of gene regulatory network components, sex-specific fitness effects as well as temporal (within and between generations) and spatial (within and between populations) variation in temperature. We aim to build two classes of models: (1) relatively simple models generalizable across taxa that address general questions on effects of temperature and its interactions with other selective forces on the evolution of SD mechanisms; and (2) highly species-specific models based on the biology of well-studied organisms aiming for quantitatively testable predictions, in close collaboration with several experimental research groups. With our novel approach we will be able to better understand the diversity of SD mechanisms and its evolution.

Requirements of candidates: We are looking for a highly motivated candidate with a relevant PhD who can work in a multidisciplinary team combining evolutionary studies with mathematical modelling.

For more info and to apply: <https://www.rug.nl/about-us/work-with-us/job-opportunities/overview?details> Or contact:

Ido Pen (Theoretical Research in Evolutionary Life Sciences, GELIFES, i.r.pen@rug.nl)

Leo Beukeboom (Evolutionary Genetics, Development & Behavior, GELIFES, l.w.beukeboom@rug.nl)

“Pen, I.R.” <i.r.pen@rug.nl>

UHelsinki 2 EvolutionaryBiology

The University of Helsinki, founded in 1640, is one of the world’s leading universities for multidisciplinary research. The University of Helsinki has an international academic community of 40,000 students and staff members, and it offers comprehensive services to its employees, including occupational health care and health insurance, sports facilities, and opportunities for professional development. The International Staff Services (<https://www.helsinki.fi/en/university/working-at-the-university>) office assists employees from abroad with their transition to work and life in Finland. The Organismal and Evolutionary Biology Research Programme is situated at the Viikki science park and belongs to the Faculty of Biological and Environmental Sciences of University of Helsinki.

The Organismal and Evolutionary Biology Research Programme (OEB) invites applications for a

POSTDOCTORAL RESEARCHER

in population/community ecology for a fixed term of two years. There will be a trial period of six months in the beginning.

The post doc position is part of the Research Centre for Ecological Change and is funded by the Jane and Aatos Erkko Foundation. PIs of the Centre are prof. Anna-Liisa Laine, prof. Otso Ovaskainen, prof. Tomas Roslin, assist. prof. Jarno Vanhatalo and Dr Marjo Saastamoinen. The starting date is 1 May 2019, but a later starting date can be negotiated.

The overarching aim of the Centre is to generate a coordinated analysis of long-term ecological data to understand impacts of global change. To unravel how populations and interactions between species in nature are responding to ongoing environmental change, the project takes advantage of the unique long-term datasets collected in Finland. The centre also develops

state-of-the-art methodology for analysing long-term spatially structured data sets within a joint species distribution modeling framework. For more information please visit our website Research Centre for Ecological Change (<https://www.helsinki.fi/en/researchgroups/-research-centre-for-ecological-change>).

We are seeking a post doc to analyse extensive ecological datasets. The successful candidate will take part in developing the specific research questions, and in linking spatial and temporal data on the abundance and distribution of species and on community composition to data on habitat structure, population harvesting, fragmentation, land use and/or weather. Examples of questions of interest include the effect of environmental change on biodiversity in different habitats, on the spread of pests, disease, and invasive species, on the threat status of endangered species, and on potential mismatches in phenology among interacting species. The data and research questions concern both aquatic and terrestrial ecosystems. The focus of the specific research questions can be modified in accordance with the background and interests of the candidate.

The successful applicant should have completed a PhD in ecology or a related field, and have a strong background in statistics, spatial statistics, and/or GIS. We seek candidates with excellent written and verbal communication skills, and the ability to conceive, execute and complete research projects, and to think independently and creatively. The post docs will work as a part of a team at the Centre but also with researchers from other environmental institutes. Overall, excellent social skills are required for extensive collaborations.

For more information, contact prof. Anna-Liisa Laine, (anna-liisa.laine@helsinki.fi), prof. Otso Ovaskainen (otso.ovaskainen@helsinki.fi), prof. Tomas Roslin (tomas.roslin@helsinki.fi) and/or Dr. Marjo Saastamoinen (marjo.saastamoinen@helsinki.fi).

The salary of the successful candidate will be based on level 5 - 6 of the demands level chart for teaching and research personnel in the salary system of Finnish universities. In addition, the appointee will be paid a salary component based on personal performance. The starting salary will be ca. 3300 - 3800 euros/month, depending on the appointee’s qualifications and experience.

Application should include the following documents as a single pdf file: motivational letter (max 1 page), CV (max 2 pages) and publication list. Include also contact information of two persons who can provide a reference letter based on request.

Please submit your application using the University of Helsinki Recruitment System (<https://>

[/www.helsinki.fi/en/open-positions/postdoctoral-researcher-in-populationcommunity-ecology](http://www.helsinki.fi/en/open-positions/postdoctoral-researcher-in-populationcommunity-ecology)). Applicants who are employees of the University of Helsinki are requested to leave their application via the SAP HR portal. The deadline for

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UHongKong 2 ConservationBiology

I'm advertising for a Postdoc on human-wildlife interaction

Applications are invited for appointment as Postdoctoral Fellow in the School of Biological Sciences (Ref.: 494110), to commence as soon as possible for one year, with the possibility of renewal subject to satisfactory performance.

Applicants should possess a Ph.D. degree in Conservation Science, Ecology, Environmental Social Sciences or equivalent. They should have a strong background in human-wildlife interactions and bridging studies of animal ecology and human dimensions of conservation. Experience in analysing spatial data is highly desirable. Experience in handling quantitative data and knowledge of Chinese language would be advantageous highly desirable. The appointee will study the distribution and frequency of reported incidents of "conflict" between humans and wild boar (*Sus scrofa*) in Hong Kong. He/She will develop research projects on both the human and animal dimensions of this interaction, including distribution of the boar and its relation to human perspectives on the animal. Field data collection could be included, depending on the preferences and skills of the appointee, and there are also possibilities to tailor projects according to his/her interests, e.g. to include citizen science and science-policy interface. More information about the research can be found at <https://www.hannahsmumby.co.uk>. Enquiries about the post should be sent to Dr. Hannah Mumby at hsmumby@hku.hk.

A highly competitive salary commensurate with the qualifications and experience will be offered, in addition to annual leave and medical benefits. At current rates, salaries tax does not exceed 15% of gross income.

The University only accepts online application for the above post. Applicants should apply online and upload an up-to-date C.V. with references, a cover letter and a brief statement of research interests. Review of applications will commence as soon as possible and continue until March 25th, 2019, or until the post is filled, whichever is earlier.

Dr Hannah S. Mumby Principal Investigator - The Bull Elephant Network Project Drapers' Company Fellow, Pembroke College Cambridge Branco Weiss - Society in Science Fellow, Department of Zoology, University of Cambridge

Twitter: @hannahsmumby hannahsmumby.co.uk Pembroke College supports CARA < <http://www.cara.ngo> >. A Lifeline to Academics at Risk

I'm looking for a Postdoc to analyse variation in elephant vocalisations:

Applications are invited for appointment as Postdoctoral Fellow in the School of Biological Sciences (Ref.: 494109), to commence as soon as possible for one year, with the possibility of renewal subject to satisfactory performance.

Applicants should possess a Ph.D. degree in Biological Science, Ecology, Animal Behaviour or equivalent. They should have a strong background in bioacoustics and animal communication, including analysis using appropriate softwares. Experience in analysing infrasonic vocalisations, mammalian systems and social context of vocalisations would be an advantage. The appointee will study the structure of vocalisations in male elephants and develop research projects on individual-variation in these calls and the social context of the vocal communication, using an already-collected dataset. Opportunities to design new studies and collect field data may be provided, following the publication of analyses on the pre-existing dataset. More information about the research can be found at <https://www.hannahsmumby.co.uk>. Enquiries about the post should be sent to Dr. Hannah Mumby at hsmumby@hku.hk.

A highly competitive salary commensurate with qualifications and experience will be offered, in addition to annual leave and medical benefits. At current rates, salaries tax does not exceed 15% of gross income.

The University only accepts online application for the above post. Applicants should apply online and upload an up-to-date C.V. with references, a cover letter and a brief statement of research interests. Review of applications will commence as soon as possible and continue until March 29, 2019, or until the post is filled,

whichever is earlier.

Dr Hannah S. Mumby Principal Investigator - The Bull Elephant Network Project Drapers' Company Fellow, Pembroke College Cambridge Branco Weiss - Society in Science Fellow, Department of Zoology, University of Cambridge

Twitter: @hannahsmumby hannahsmumby.co.uk Pembroke College supports CARA < <http://www.cara.ngo/> >. A Lifeline to Academics at Risk.

Hannah Mumby <hs.mumby@gmail.com>

U Illinois Disease Evolution

Post-doctoral position in Genetic Epidemiology - Chronic Wasting Disease

The Wildlife Veterinary Epidemiology Laboratory at the Illinois Natural History Survey (INHS) (<https://www.inhs.illinois.edu/directory/show/nohram>) is seeking a Postdoctoral Research Associate to study genetic characteristics, gene flow and prion sequence polymorphisms of managed white tailed deer in Illinois. Topics of interest include use of modeling and genetic techniques in the study of CWD in Illinois; genetic evaluation of geographical clusters of CWD infection, the use population genetic analysis to describe patterns of genetic structure, spatial distribution and gene flow that draw insights into the epidemiology and management of CWD. The work entails the use of molecular tool epidemiological modeling, GIS tools, and strong collaborative interactions with biologists, faculty, staff and students across INHS and the U of I campus.

The job announcement and application instructions can be found at: <https://blogs.illinois.edu/view/7426/-744695> The University of Illinois conducts criminal background checks on all job candidates upon acceptance of a contingent offer.

Illinois is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, sex, sexual orientation, gender identity, age, status as a protected veteran, or status as a qualified individual with a disability. Illinois welcomes individuals with diverse backgrounds, experiences, and ideas who embrace and value diversity and inclusivity. (www.inclusiveillinois.illinois.edu).

Amber Hall Human Resource Associate Prairie Research

Institute 1816 S. Oak St. Champaign, IL 61820 P: 217-300-4080 www.prairie.illinois.edu "Hall, Amber Renee" <amberh@illinois.edu>

UMaryland Evolution Malaria Parasites

A postdoctoral position is available in the laboratory of Dr. David Serre in the Institute for Genome Sciences at the University of Maryland School of Medicine in Baltimore. Our laboratory is interested in developing and applying genomic approaches to better understand the biology of malaria parasites. We are seeking a motivated individual to lead the analyses of single-cell RNA-seq data generated from different Plasmodium species at different life stages of their development and to perform comparative transcriptomics analyses. A PhD in computational biology, bioinformatics, genomics, evolutionary biology or a related field is required. Proficiency in at least one programming language and knowledge of statistics are required. Interested candidates should send a cover letter, CV and names of three references to Dr. Serre (dserre@som.umaryland.edu).

"Serre, David" <DSerre@som.umaryland.edu>

UMassachusetts Boston Quantitative Genetics

The Moyers lab at the University of Massachusetts Boston is recruiting a postdoc to work on the dynamics of genetic effects over development in plants using high-throughput phenotyping. If that sounds interesting, please email brook.moyers@umb.edu!

Summary of position: The Post-Doctoral Research Fellow will participate in the fields of evolutionary biology, quantitative genetics, and genomics within the Department of Biology. The incumbent will assist the laboratory Principal Investigator (PI) in new and on-going research projects that include both field and laboratory work. Specifically, the incumbent will develop a project that complements the labs on-going research and will participate in and assist with the organization of the laboratorys molecular work, as well as field data collection and experiments. The Post-Doctoral

Research Fellow will help expand the departments current research program, which focuses on understanding ecological and evolutionary processes and how humans have altered those processes. The incumbent will participate in cutting-edge research in genomics and evolutionary biology; and will offer a stimulating academic environment with opportunities to collaborate in a team setting, gain valuable written/oral communication skills and computational skills, and co-author publications. Possible projects include developing quantitative genetic models of Asian rice (*Oryza sativa*) responses to water limitation, using GWAS data and polygenic scores to detect patterns of selection in Asian rice populations, and using a low-cost, high-throughput imaging system to understand how genetic effects change over plant development. Collaborative development of additional projects is possible.

Desired qualifications: PhD in Evolutionary Biology, Ecology, Plant Sciences or a closely related field. Strong quantitative and statistical skills, with hands-on experience integrating data from phenotypic, genetics, and environmental datasets to understand natural and/or agricultural variation. Experience in molecular genetics and field/greenhouse/growth chamber research. Strong communication and mentorship skills.

Brook T Moyers <Brook.Moyers@umb.edu>

UmeaU LandscapeGenomicsConifers

The Department of Ecology and Environmental Science (Umeå University, Sweden) invites applicants for a post doc fellowship on landscape genomics and phylogeography of conifer trees.

Project description Genetic diversity is the key component underpinning forest resilience to disturbances such as climate change, habitat loss and novel pests and diseases. The level of standing genetic variation in the boreal conifer forests is shaped by the evolutionary history unique to the region and by human activities. Migration out of refugia that survived the Last Glacial Maximum, and gene exchange along the routes of range expansion have strong impact on the genetic structure of extant populations. The project aims to reconstruct the recent evolutionary history of major Eurasia conifer species (e.g. Scots pine, Norway spruce, etc.), and to characterize how neutral and adaptive processes have contributed to genetic diversity.

The postdoc will participate in developing and apply-

ing methods for inferring phylogeography, migration, hybridization, and natural selection from population genomic data. The research will mainly include modelling and data analyses. Molecular lab work is a minor part of the position (10 %). The postdoc will also have the freedom to contribute to other ongoing projects and to develop own projects that mesh with the group's interests.

The fellowship is funded by a tax-free 2-year scholarship from Carl Tryggers Foundation, amounting to 23,000 SEK per month. The scholarship is for two years starting in June 2019, or according to agreement.

Qualifications A PhD degree in evolutionary genetics, or a related field is a demand. We seek highly motivated candidates with a broad interest in landscape genomics. To be eligible for this fellowship, you should have completed your doctoral degree a maximum three (3) years before the end of the application period. Good ability to co-operate is requested as good skills in written and spoken English. Experience with genome sequence data is a merit, including familiarity with phylogenetic analyses and statistical programming (e.g. Linux, R, Python). Experience with GIS and coalescence simulations for complex models is advantageous.

For more information and how to apply, please go to the link: <https://www.umu.se/en/work-with-us/fellowships-and-grants/6-350-19/> Xiao-Ru Wang Dept. of Ecology & Environmental Science Umeå University S-901 87 Umeå, Sweden

xiao-ru.wang@umu.se

UMichigan MacroevolutionFreshwaterFishes

Postdoctoral researcher: Macroevolution of Neotropical Freshwater Fishes

A postdoctoral position in macroevolution of Neotropical Freshwater fishes is available in *Hernn Lpez-Fernndez lab in the Department of Ecology and Evolutionary Biology and Museum of Zoology at the University of Michigan, Ann Arbor*. We study the macroevolution of highly diverse biodiversity assemblages and the roles of ecological and morphological specialization in driving phylogenetic divergence in fishes. We use fieldwork and natural history collections to combine systematics, comparative morphology, and ecology. We build phylogenies, analyze timing, rates and patterns of lin-

eage and phenotypic diversification, and describe associations between ecology and morphology in a phylogenetic context (more info here: <https://sites.google.com/site/hlffishes> < <https://sites.google.com/site/hlffishes/home?authuser=0> >).

Broadly, the postdoctoral position will focus on generating and integrating phylogenetic hypotheses and functionally-relevant phenotypic traits of Neotropical freshwater fishes. Within that framework, research projects may include: 1) Developing phylogenetic hypotheses for Neotropical freshwater fishes to provide an integrated timeline for their evolution; 2) Designing and generating cross-clade, functionally relevant phenotypic datasets based on museum specimens; 3) Performing analyses and/or developing phylogenetic comparative approaches to analyze lineage and phenotypic evolution in Neotropical freshwater fishes; 4) Generating phylogenomic hypotheses and/or ecomorphological datasets for analyses of community phylogenetics and assembly evolution in select assemblages. Two or more of these projects would be developed in parallel and opportunities to develop additional or expanded projects within these parameters and for continued collaboration are available.

Developing opportunities for involving and mentoring undergraduate students through programs such as U-M UROP (<https://lsa.umich.edu/urop>) are strongly encouraged. For applicants with an interest in Neotropical fishes or macroevolution, the project is an opportunity to engage in large-scale comparative studies with the most diverse freshwater fish fauna on earth. The position offers additional potential for collections-based research on fishes and fieldwork in the Neotropics. The successful applicant will be part of a dynamic group of biodiversity researchers affiliated with the EEB department and the U-M Museum of Zoology, one of the worlds largest ichthyological research collections.

Ann Arbor is a great place to live and it is consistently ranked among the top places to live and work in the US (e.g. here < <https://www.clickondetroit.com/all-about-ann-arbor/ann-arbor-ranks-no1-city-to-live-in-america> >). The city has a vibrant cultural life with something for everyone, including great music, food, craft breweries and outdoors activities. We are also 40 minutes away from downtown Detroit and its many attractions, including the Detroit Institute of Arts, JazzFest, the Riverwalk, Belle Isle Aquarium and the Tigers stadium, among many others.

Position details

Appointment is available for one year and renewable for a second year after successful performance evaluation. Salary is commensurate with experience and includes

benefits and employee health insurance eligibility. Start date is May 15, 2019 or a soon as possible thereafter.

Required qualifications

- PhD in Ecology and Evolutionary Biology, Zoology, Ecology or related field

- Demonstrable knowledge of bioinformatics associated with phylogenetics, phylogenomics, morphometrics and/or phylogenetic comparative methods, as well as associated data management skills

- Demonstrable knowledge of fish anatomy and/or functional morphology

- Record of peer-reviewed publications, including lead-author papers in research relevant to the position

One or more of the following skills or areas of expertise are desirable

- Scripting and analysis pipelines development and documentation of molecular phylogenetic/phylogenomic datasets

- Experience working with museum specimens and familiarity with museum cataloguing and databasing practices

- 2D and 3D geometric morphometrics, traditional morphometrics, microCT scanning and segmentation software

- Previous research experience with Neotropical fish diversity and distribution

- Experience mentoring and supervising undergraduate students in research

Application instructions

Please provide a 1-2 page cover letter describing your research experience

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UMichigan ParasiteEvolutionOfEvolvability

Postdoc at University of Michigan (Updated Deadline)

About The Position: The lab of Dr. Luis Zaman is searching for a postdoc to work on projects bridging

community ecology and parasite coevolution using digital organisms in Avida. The overarching goal of these NSF funded projects is to understand what ecological features favor the evolution of increased parasite evolvability. In other words, what is it about the ecology of some host-parasite communities that lead to parasite populations more poised for adaptation, versus other communities that lead to more evolutionarily sluggish parasites?

The successful candidate will be part of an interdisciplinary collaboration combining natural populations of rodents and their bacterial parasites, microbial experimental evolution, and computational models/analyses. This position will be primarily responsible for the computational components, but communication and collaboration with others working on all aspects of this project will be indispensable. In addition, this position will be responsible for mentoring undergraduate and graduate students working on related projects. See a more detailed abstract of the project on NSF's website: <http://bit.ly/2qe3L8y> Funding is available for at least 2 years, and appointments are renewed annually based on continued progress.

The Zaman Engineered and Experimental Evolution (ZEEE) lab is part of the University of Michigan's Ecology and Evolutionary Biology Department as well as the Center for the Study of Complex Systems. The successful candidate will enjoy vibrant interdisciplinary environments that both departments offer. More info about the lab at <https://zeelab.com/>. Required Qualifications: - PhD in a field related to computational biology, molecular/microbiology, or ecology and evolution by the start date

Desired Qualifications: - Programming proficiency (e.g., Python, C++, R) - Background in ecology and evolution, especially of microbes - Evidence of creative and clear writing skills

How to Apply: Send a single PDF document with a CV, a brief (paragraph or two) summary of previous research and other relevant experiences, and the contact information for 2-3 references to Luis Zaman (zamanlh@umich.edu). Application review will begin on February 15th, and continue until the position is filled.

Luis Zaman <luis.zaman@gmail.com>

UPittsburgh Evolutionary Biol

The Department of Biological Sciences at the University of Pittsburgh invites applications for a 2-year Postdoctoral Fellowship in Ecology and Evolution, broadly defined (e.g., disease ecology, microbiome, behavioral ecology, species interactions, phylogenomics, population genetics, community and eco-evo dynamics). The goal of the EE Postdoctoral Fellowship is to broaden expertise and to stimulate synergistic interactions between faculty interested in the area of Ecology and Evolution. The successful candidate will be expected to conduct original independent research that bridges the interests of two or more faculty members in the Ecology and Evolution sections of Biological Sciences and to lead a graduate seminar in their area of expertise each year.

Qualified candidates are required to submit a single, coherent 2-year research proposal to be completed under the guidance of two or more members of the ecology and evolution faculty in the Department of Biological Sciences of the Dietrich School of Arts and Sciences (<https://www.biology.pitt.edu/research/ecology>). The position does not include research funds so the extent of contributions from the faculty sponsors should be addressed in the proposal. We strongly encourage candidates to contact appropriate faculty sponsors before applying. Preference will be given to candidates with novel ideas, demonstrated research ability, and strong communication skills. Along with the research proposal, applications must include a CV, a short description of research accomplishments and a description of how your research, teaching or service demonstrates a commitment to diversity and inclusion. The applicant must arrange for two recommendation letters from non-UPitt faculty, and letters from the UPitt faculty sponsors to be emailed to the address below. The expected salary will be \$48,000 per year with benefits. Application deadline is April 1, with position start date June-August 2019 (specific date negotiable).

Application materials should be emailed to: Dr. Tia-Lynn Ashman at: tia1@pitt.edu. The subject line should read "EE Post-doctoral application".

Dr. Tia-Lynn Ashman Distinguished Professor Department of Biological Sciences University of Pittsburgh Pittsburgh, Pa 15260

Phone: 412-624-0984

tial1@pitt.edu

UppsalaU Evolutionary Genetics

POST DOC POSITION IN EVOLUTIONARY GENETICS - Sexual Selection and Mutation Rate The Department of Ecology and Genetics at Uppsala University are looking to hire a post doc on a 2-year contract.

PROJECT DESCRIPTION: Mutations form the raw material for evolution and do not only affect rates of adaptation and extinction but also cause fundamental human health problems. New evidence has demonstrated that mutation rates can vary systematically both across the genome and with the health of individuals. In many species, including humans, there are also systematic differences between the two biological sexes, with frequently observed male-bias in mutation rate. These findings have broad implications for a wide range of evolutionary and demographic processes but the ultimate causes for the observed variation remain a matter of considerable debate. The successful applicant will take an approach combining experimental evolution and genome sequencing to understand the role of sexual selection in shaping within- and between-population variation in mutation rate.

The first aim is to explore the molecular basis for a link between investment in sexually selected traits and germline DNA repair by comparing gene expression in experimental evolution lines of seed beetles stored from a previous experiment.

The second aim is to use DNA sequencing to explore the type and location of mutations left unchecked by the DNA repair system in individuals challenged to engage in sexual competition. This will explore heterogeneity in DNA repair across the genome and link this variation to trade-offs with investment in sexual reproduction.

The candidate will work in close association with the host Dr. David Berger and PhD student Julian Baur, and share lab space and interact with members of the groups of Prof. GÅÅArnqvist and Dr. Elina Immonen. Currently, the beetle lab consists of 8 members and occasional project students.

WORKING ENVIRONMENT: The Evolutionary Biology Centre hosts one of the world's largest aggregations of evolutionary biologists and Uppsala University was recently ranked 7th in the world in evolutionary biology (CWUR 2017). The Department of Ecology and Genet-

ics is an international environment with staff from all over the world. Our research spans from evolutionary ecology and genetics to studies of ecosystems. A number of high-profile projects address natural and sexual selection, local adaptation, speciation, molecular evolution, microbial diversity, and ecosystem processes. For more information, see: ieg.uu.se. Uppsala University is the oldest university in Scandinavia and the city of Uppsala is a vibrant college town with beautiful surroundings conveniently situated 40 minutes by train from Stockholm.

QUALIFICATIONS: A Phd degree in evolutionary, quantitative, population or molecular genetics, or equivalent. We seek highly motivated candidates with a broad interest in evolutionary biology. Experience with sequence data is a merit, including familiarity with laboratory molecular methods and experimental design, and/or analytical methods and statistical programming (e.g. R, Python, C).

POSITION: The postdoc is funded by a tax-free 2-year scholarship from Carl Tryggers Foundation, amounting to 23,000 SEK per month.

HOW TO APPLY: Application deadline: Application sent in before February 9, 2019 will be given priority. The position will be open until filled.

Send an e-mail to david.berger@ebc.uu.se with the subject heading 'POST-DOC APPLICATION', with the following documents combined into ONE pdf file:

- A cover letter describing your research interests and suitability (1 page)
- A CV detailing your education, previous positions and other achievements (max 3 pages)
- A list of your publications (submitted manuscripts can be included)
- Contact details of 2-3 references who can be contacted by telephone or e-mail before or after the interview.

Prospective candidates will be invited for interviews in person or over Skype in February 2019.

Informal inquiries can be directed to: david.berger@ebc.uu.se Lab home page: <http://www.ieg.uu.se/animal-ecology/Research+groups/-berger-lab/> Publications: https://scholar.google.se/citations?hl=sv&user=ko_SEAAAAJ We are looking forward to receiving your application

- David Berger Animal Ecology Department of Ecology and Genetics Evolutionary Biology Centre Uppsala University david.berger@ebc.uu.se

E-mailing Uppsala University means that we will process your personal data. For more information on how this is performed, please read here: <http://www.uu.se/en/about-uu/data-protection-policy> David

Berger <david.berger@ebc.uu.se>

USouthFlorida EvolutionEpigenetics

Postdoctoral Scholar in Ecological Epigenetics, University of South Florida

The University of South Florida is seeking to hire 1 postdoctoral scholar to perform research on epigenetic and physiological mechanisms involved in the spread of the house sparrow across the globe. The individual will work on this research project in the College of Public Health in an effort to obtain federal grant support to expand the scope and extend the duration of the project. Successful candidates will be part of an interdisciplinary program seeking to discern how epigenetic potential (i.e., DNA sequence variation influencing DNA methylation, gene expression and hence phenotypic plasticity) impacts the success of colonizing populations. Work will involve collaborating with and co-managing project personnel, performing various molecular techniques, analyzing resultant data, and writing manuscripts and presenting findings at various meetings. Willingness to travel and work internationally, sometimes for weeks to months at a time, is imperative, as is willingness to contribute to grant writing efforts. The postdoc will have some latitude to develop her/his own research projects, as long as they complement the foci of the main project. Importantly, the Martin lab at USF recently hired a postdoc for a completely different project (i.e., scaling of immunity in mammals); this position is distinct from that one.

USF is one of the 10 largest academic institutions in the United States and offers unique opportunities for collaboration with research institutions in Africa, Asia, Latin America and the Caribbean. The post-doc will be located at University of South Florida but will also travel occasionally to collect samples.

Competitive candidates must have a PhD or equivalent degree in biology, ecology, behavior, and/or evolution, and should have experience working with live vertebrates and some familiarity with molecular techniques (e.g., hormone assays, quantitative PCR, RNA-seq) and associated analyses as well as a solid publication record.

Preferred Qualifications: Proficient in Program R or an equivalent, experience with physiological, behavioral, avian field work, and transcriptomics methods. Strong record of research achievements. Candidates must be highly motivated, able to think and work independently

but as part of a multidisciplinary research team. Candidates must also be willing to travel internationally, sometimes for long periods.

To apply: Complete an online application. Visit <http://employment.usf.edu> and search for Job ID 19741. Applicants should submit a current curriculum vitae and cover letter describing how their past experiences, current expertise, and planned career path complement this position. Application review will begin on March 15, but the position will remain open until filled.

Affirmative Action: USF is an equal opportunity, equal access academic institution that embraces diversity and inclusion in the workplace.

“Martin, Lynn” <lbmartin@health.usf.edu>

UUtah EvolutionaryGeneticsSpeciation

The Castillo Lab in the School of Biological Sciences at the University of Utah invites applications for a postdoctoral fellow with a strong background and/or interest in evolutionary genetics, transcriptomics/proteomics, molecular genetics, and the development of tools to link genotypic and phenotypic evolution to understand broadly how behavior and mating traits contribute to speciation and biodiversity.

The Castillo Lab currently has a range of projects examining the processes and mechanisms that contribute to adaptation and speciation. Examples include: 1) the genetic basis of female mate preference in recently diverged lineages and 2) sexual selection and conflict that occurs between gametes within the female reproductive tract. Applicants should have a strong background in biology and programming languages (i.e. R, python, etc.). The ideal candidate will have demonstrable experience with the generation or analysis of genomic datasets and/or molecular genetics. Data management skills are essential. We welcome applications from candidates with strong quantitative skills who are interested in the projects listed above. Applicants should also have evidence of their creativity and potential, including publications that demonstrate their skills in evolutionary genetics research. Successful applicants will have the opportunity to work with a diverse range of datasets and will be encouraged to assume an active role in the direction and design of future investigations.

Responsibilities The postdoc will plan, design, and con-

duct experiments that are related to the general research themes of the lab. Experiments may involve classical molecular biology techniques and cloning, microscopy, chromatography, and genomics.

The duties and responsibilities of the postdoc are: 1) Design independent experiments related to understanding the phenotypic and genetic basis of mating traits that contribute to speciation and adaptation.

2) Assist with general laboratory maintenance and supervise/train technicians and students involved in the project when necessary.

3) Keep up to date with the current literature, present results at lab meetings, seminars, and conferences, and prepare and submit abstracts and manuscripts for publications.

Minimum Qualifications Preferences Applicants should be highly motivated and have a Ph.D. in evolution, genetics, or a related field. We are looking for a creative and productive scientist with strong quantitative skills, good communication abilities, and a publication record commensurate with career stage.

If interested please contact Dean Castillo (dmc79@cornell.edu) and include a CV, statement of research interests and experience, and the names of three references. Informal inquiries are also welcome. Applications will be accepted until the position is filled and review of applications will begin immediately.

Dean Castillo Assistant Professor (starting Fall 2019) School of Biological Sciences University of Utah dmc79@cornell.edu <https://castillolab.github.io/> Dean Castillo <dmc79@cornell.edu>

UYork UK LeishmaniaPopulationGenomics

Postdoctoral position in protozoan population genomics

We are looking for a postdoc to study the population genomics of *Leishmania infantum* populations in Brazil. The post starts from 1 April 2019, applications are accepted now.

Apply here: <https://bit.ly/2BNTKoR> The position is based in York UK, in collaboration with world-leading in *Leishmania* researchers. The funding and existing collaborations ensure the collection of extensive genomic data sets (using both Illumina and Oxford Nanopore sequencing). The current project will cover Brazil and

there is excellent potential for expansion of the project to other regions of the world. Parasite genome data is matched with clinical data, which will allow quantitative genetics analyses. These studies will enrich our understanding of host-parasite interactions, drug resistance and parasite aspects of disease severity.

The work will be under the direct supervision of Dr. Daniel Jeffares (York, jeffareslab.org), in collaboration with Prof. Jeremy Mottram (York, www.mottramlab.org) and Prof. Ana Paula Lima (Federal University of Rio de Janeiro). The project is part of a UK/São Paulo: Joint Centre Partnership funded by the MRC. Visits to Rio, São Paulo and elsewhere to facilitate the partnership will be encouraged.

We are particularly interested in applicants with backgrounds in population genomics, evolutionary genetics and/or quantitative genetics. Experience with NGS data is essential. Experience with parasitology would be useful, but is not essential.

Salary: £32,236 - £39,309. More information is available here: <https://bit.ly/2BNTKoR> Contact daniel.Jeffares@york.ac.uk for informal enquires

Daniel Jeffares <daniel.jeffares@york.ac.uk>

VirginiaInstMarineScience 2 EvolutionAlgalBlooms

The Research Laboratory of Dr. Juliette Smith at William & Mary's Virginia Institute of Marine Science (VIMS) is seeking 2 Postdoctoral Research Associates focused in Harmful Algal Blooms and/or their associated toxins. The Postdoctoral Research Associate will join the interdisciplinary team in their investigations into environmental and biological controls over harmful algal blooms and toxin production, and/or the persistence, fate, and effects of their associated toxins. Apply at <https://jobs.wm.edu/postings/34500>. Application materials are due on March 15, 2019 for full consideration, but will continue to be accepted until November 30, 2019, or until both positions have been filled.

The university is an EO/AA employer and encourages applications from women, minorities, protected veterans, and individuals with disabilities. The university conducts background checks on applicants for employment.

William & Mary's Virginia Institute of Marine Science/School of Marine Science (VIMS/SMS) invites applications for two postdoctoral research associates to

join in their study of the environmental and biological controls over harmful algal blooms (HABs) and/or the persistence, fate, and effects of their associated toxins along the salinity gradient. Start date is negotiable, but ideally the positions will begin in spring/summer 2019 (but no later than December 2019). The positions are for one year, but funding for additional years is possible.

Qualifications: At the time of appointment, the successful candidates will hold an earned doctorate (Ph.D.) or equivalent in chemistry, biological sciences, environmental science, or a related field. Demonstrated experience in conducting and publishing research (at least one manuscript submitted) focused on toxins/natural products, harmful algal bloom dynamics, or phytoplankton cultures is required. Preference will be given to those candidates whose research experience (or interests) align with recent publications and/or grants led by the Smith research group.

Responsibilities: The postdoctoral research associates will work with Dr. Juliette Smith, and join an interdisciplinary team in their investigations into one or both of the current research areas: 1) environmental and biological controls over harmful algal blooms and toxin production, and/or 2) the persistence, fate, and effects of their associated toxins in the ecosystem. Depending upon the successful candidates' expertise and interests, the postdocs will utilize analytical techniques, conduct culturing studies, and/or lead large-scale field studies. The postdoctoral research associates will have opportunities to be involved in projects utilizing the Imaging FlowCytobot. Additional responsibilities may include, but are not limited to, proposal and manuscript preparation, management and analysis of large environmental datasets, and statistical analysis.

About the Virginia Institute of Marine Science: Chartered in 1940, the Virginia Institute of Marine Science < <http://www.vims.edu/> > is currently among the largest marine research and education centers in the United States. VIMS has a three-part mission to conduct interdisciplinary research in coastal ocean and estuarine science, educate students and citizens, and provide advisory service to policy makers, industry, and the public. The School of Marine Science at VIMS is the graduate school in marine science for William & Mary < <http://www.wm.edu/> >. VIMS currently employs 52 full-time faculty members and 256 staff, and has 80 graduate students in master's and doctoral programs.

Application materials for the positions should include: 1) a 2-page statement summarizing relevant experience and how this experience will support one (or both) of the 2 current research areas above; 2) a cover letter identifying availability for this position; 3) a full curriculum

vitae; and 4) the names, addresses (including titles and institutions), e-mail addresses and telephone numbers of 3 professional references.

Application materials should be addressed to: Search Committee Chair, HAB Postdoctoral Associates, and will be accepted through our On-Line Application System at <https://jobs.wm.edu> < <http://jobs.wm.edu/postings/34069> >. Application materials are due on March 15, 2019 for full consideration, but application materials will continue to be accepted until November 30, 2019.

William & Mary values diversity and invites applications from underrepresented groups who will enrich the research, teaching and service missions of the university. The University is an Equal Opportunity/Affirmative Action employer and encourages applications from women, minorities, protected veterans, and individuals with disabilities. William & Mary conducts background checks on applicants for employment.

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

WashingtonStateU EvolutionaryGenomics

POSTDOCTORAL RESEARCHER

Washington State University
School of Biological Sciences

We are seeking a postdoctoral researcher to work on evolutionary genomics of Tasmanian devils and Tasmanian devil facial tumor disease, a transmissible cancer. This NIH/NSF-funded international collaboration builds on over 20 years of research tracking the spread of the unique infectious tumor across Tasmania and consequent endangerment of the iconic Tasmanian devil. Reference genomes and transcriptomes are available for both tumor and devil, and the successful applicant will have an unprecedented opportunity to analyze thousands of devil genotypes and hundreds of tumor samples taken both before and after epizootics to test for selection throughout both genomes, coevolution, patterns of resistance, phenotypic evolution of Tasmanian devils aided

by pedigree reconstruction and functional genomics studies aided by a CRISPR-Cas9 system. The position is centered in the lab of Dr. Andrew Storfer (storferlab.org) at Washington State University, in collaboration with Dr. Paul Hohenlohe at the nearby University of Idaho (8 miles away). Both universities have state-of-the-art genomics core facilities, including the Institute of Bioinformatics and Evolutionary Studies (IBEST; <http://www.uidaho.edu/research/ibest>), the WSU Genomics Core Facility (<https://labs.wsu.edu/genomicscore/>) and the WSU Kamiak High Performance Computing cluster (<https://hpc.wsu.edu/>). Additional collaborations exist with the possibility of exchanges with the The Fred Hutchinson Cancer Research Center in Seattle, as well as the University of Tasmania and Griffith University in Australia.

Review of applications will begin on March 8, 2019 and continue until the position is filled. A Ph.D. in Biology or a related discipline, combined with genomics and

bioinformatics experience is required. Desired qualities also include a background in one or more of the following: pedigree reconstruction, population genomics, phylogenetics, infectious disease evolution, and/or cancer genomics. Start date is negotiable, but is anticipated to be between May and August, 2019. Salary and benefits are competitive. Position is for 1 year, with continuation for additional year(s) pending satisfactory progress. To apply, please send in pdf format a CV, and names, addresses and email addresses of 3 references, a 1-2 page research statement, and up to 3 representative reprints via email to: Andrew Storfer (astorfer@wsu.edu).

WSU is an Equal Opportunity/Affirmative Action/ADA educator and employer.

Andrew Storfer, PhD Professor School of Biological Sciences Washington State University Pullman, WA 99164 USA Phone: (509) 335-7922 Fax: (509) 335-3184 astorfer@wsu.edu www.wsu.edu/~storfer

andrew.storfer@gmail.com

Workshops Courses

Barcelona Phylogenomics Population Genomics Jul2-12	IndianaU R Transcript Assembly Feb11-May1	117	123
Berlin 16S Metabarcoding Apr1-5 Last Call	NewHaven Biological Infrastructure Jun12-14	118	124
Berlin Bayesian Statistics Mar25-29	Ploen Transgenerational Inheritance Nov6-8	118	124
Berlin Eukaryotic Metabarcoding Mar4-8 Last Call	Portugal Wildlife Conservation Apr8-11	119	125
Berlin Genomic Data Visualization Apr8-12	Princeton Evol Disease Control Jun9-10	119	126
Berlin Phylogenetic Comparative Methods Sep23-27	Quebec City Speciation Genomics And GWAS Sep2-6	120	127
Berlin R Programming Jul1-5	Saclay France Models In Evolution Jul8-12	120	127
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Edinburgh Genomics Intro To Linux Mar13	UC London Models In Evolution Jul8-12	122	130
Friday Harbor Labs Evolutionary Quantitative Genetics Jun10-14	Vostok Russia Mollusc Systematics Sep17-27	122	130
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Barcelona
Phylogenomics Population Genomics
Jul2-12

Dear all,

We have now opened the preadmission phase to our postgraduate course “Phylogenomics and Population Genomics: Inference and Applications” which will be held in Barcelona (July 2-12 2019).

The pre-enrollment deadline is 10th March 2019

Course website: <https://www.ub.edu/certifem/ppgcourse> Instructors: <https://www.ub.edu/certifem/ppgcourse/instructors> OVERVIEW:

The course aims to provide a thorough and rigorous training on the use of phylogenetic and population genetics methods to infer evolutionary mechanisms and history at the inter- and intraspecies level using high-throughput sequencing data.

It will cover most popular approaches used in phylogenomic inference, molecular dating and species delimitation, and in population genomics both to infer demographic history and to study molecular adaptation.

Special emphasis will be put given to developing hands-on expertise in the use of the state-of-the-art software and explaining through practical cases the current and future applications of phylogenomic and population genomics.

For more information about the programme, please visit our website: <https://www.ub.edu/certifem/ppgcourse/programme> For information about our previous course: <https://www.ub.edu/certifem/ppgcourse/early-editions> TARGET AUDIENCE:

The course is addressed to graduate and postgraduate researchers that need to learn how to handle HTS data to infer population history, phylogenetic relationships, estimate divergence times or adaptative processes, or many other applications of tree-based evolutionary methods.

STRUCTURE

This is a two weeks course, which includes lectures, in-class exercises, seminars and discussion sessions: <https://www.ub.edu/certifem/ppgcourse/schedule> ****This course offers the possibility of being validated by 6 ECTS (European Credit Transfer System) credits

Should you have any questions, please feel free to contact us: certifem@ub.edu

All the best, M.A. Arnedo, Ph.D A. SÁnchez-Gracia, Ph.D

Alejandro SÁnchez Gracia Professor Associat

Departament de GenÈtica, Microbiologia i Estadística Secció de GenÈtica Biomèdica, Evolutiva i del Desenvolupament Facultat de Biologia

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This email message and any documents attached to it may contain confidential or legally protected material and are intended solely for the use of the individual or organization to whom they are addressed. We remind you that if you are not the intended recipient of this email message or the person responsible for processing it, then you are not authorized to read, save, modify, send, copy or disclose any of its contents. If you have received this email message by mistake, we kindly ask you to inform the sender of this and to eliminate both the message and any attachments it carries from your account. Thank you for your collaboration.

Alejandro Sanchez Gracia <elsanchez@ub.edu>

Berlin 16S Metabarcoding Apr1-5 Last Call

Dear all,

we have the last 4 places available on our course “16S/ITS Metabarcoding of microbial communities” which will take place at the Free University of Berlin from the 1st to the 5th of April.

The registration deadline is soon approaching : March 2th, 2019.

Instructors:

Dr. Anna Sandionigi (University of Milan Bicocca, Italy)
Dr. Bruno Fosso (CNR , Italy) Dr. Antti Karkman (University of Helsinki, Finland)

This course will provide a thorough introduction to the application of metabarcoding techniques in microbial ecology. The topics covered by the course range from bioinformatic processing of next-generation sequencing data to the most important approaches in multivariate statistics. Using a combination of theoretical lectures and hands-on exercises, the participants will learn the most important computational steps of a metabarcoding study from the processing of raw sequencing reads down to the final statistical evaluations. After completing the course, the participants should be able to understand the potential and limitations of metabarcoding techniques as well as to process their own datasets to answer the questions under investigation.

For more information, please visit the course website: <https://www.physalia-courses.org/courses-workshops/course30/> Here is the 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: info@physalia-courses.org

Best regards,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR info@physalia-courses.org <http://www.physalia-courses.org/> Twitter: @physiacourses mobile: +49 17645230846

<https://groups.google.com/forum/#!forum/physalia-courses> info@physalia-courses.org

Berlin Bayesian Statistics Mar25-29

Course: An introduction to computational Bayesian methods using Stan

When : 25-29 March 2019

Where: Free University of Berlin (Germany)

Website: (<https://www.physalia-courses.org/courses-workshops/course46/>)

Registration deadline: 25th February 2019

Instructor:

Prof. Dr. Shравan Vasishth (<http://www.ling.uni-potsdam.de/~vasishth/>)

In this course, we provide a relatively accessible and technically non-demanding introduction to the basic workflow for fitting different kinds of linear models using Stan. To illustrate the capability of Bayesian modeling, we will use the R package RStan and a powerful front-end R package for Stan called brms.

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.

For more information about the program, please visit our website: <https://www.physalia-courses.org/courses-workshops/course46/curriculum46/> Here is the 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: info@physalia-courses.org

Best regards,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR info@physalia-courses.org <http://www.physalia-courses.org/> Twitter: @physiacourses mobile: +49 17645230846 <https://groups.google.com/forum/>

[#!forum/physalia-courses](#) “info@physalia-courses.org”
<info@physalia-courses.org>

Berlin Eukaryotic Metabarcoding Mar4-8 Last Call

Dear all,

we would like to inform you that we have the last 5 places left for our Eukaryotic Metabarcoding Workshop, that will be held in Berlin (Free University) from the 4th to the 8th of March.

Registration deadline: 10th February

Instructors:

- 1) Dr. Owen S. Wangensteen (University of Tromsø, Norway)
- 2) Dr. Dr. Vasco Elbrecht (University of Guelph, Canada)

This workshop gives an overview of metabarcoding procedures with an emphasis on practical problem-solving and hands-on work using analysis pipelines on real datasets. After completing the workshop, students should be in a position to (1) understand the potential and capabilities of metabarcoding, (2) run complete analyses of metabarcoding pipelines and obtain diversity inventories and ecologically interpretable data from raw next-generation sequence data and (3) design their own metabarcoding projects, including bioinformatic data analysis and planning of laboratory work. All course materials (including copies of presentations, practical exercises, data files, and example scripts prepared by the instructing team) will be provided electronically to participants.

For more information, please visit our website: <https://www.physalia-courses.org/courses-workshops/course4/>
Here is the full list of our courses and Workshops: <https://www.physalia-courses.org/courses-workshops/>
All the best, 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 Genomic Data Visualization Apr8-12

Dear all,

we have the last places available on our Workshop “Genomic Data Visualization and Interpretation” which will be held in Berlin (8-12 April).

Registration deadline: 6th March 2019

Instructors:

Dr Obi Griffith and Dr Malachi Griffith (Department of Medicine, Washington University School of Medicine, US)

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.

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 Workshop will involve primarily human genome/transcriptome data but many of the concepts learned will be applicable to model organisms, metagenomics, simulated data, etc.

For more information about the program, please visit our website: <https://www.physalia-courses.org/courses-workshops/course14/curriculum-14/> Here is the 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: 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
Phylogenetic Comparative Methods
Sep23-27

Course: Phylogenetic Comparative Methods

When : 23-27 September

Where: Berlin (Germany)

Website: <https://www.physalia-courses.org/courses-workshops/course44/> Instructors:

1) Dr. Francesco Santini <https://scholar.google.com/citations?user=Åy5LlsAAAAJ&hl=en> 2) Dr. Bruno Frédérich <https://scholar.google.com/citations?user=-TuwejFEAAAAJ&hl=en> This course will introduce students, researchers and professionals to the theoretical and practical aspects of generating ultrametric trees, reconstructing trait evolution and investigating rates of lineage diversification. It will consist of both lectures to cover theory, as well as practical tutorials.

The course is structured in modules over 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. Students will be provided with previously published datasets that have been selected to highlight some of the complexities of various types of methods and analyses, as well as to reproduce the type of dataset that they might use in their own research. Students are also encouraged to bring their own dataset in case they want to seek input from the instructors on how to set up analyses of their own data

For more information about the program, please visit our website: <https://www.physalia-courses.org/courses-workshops/course45/curriculum45/> Here is the 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: info@physalia-courses.org

Best regards,

Carlo

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<info@physalia-courses.org>

Berlin R Programming Jul1-5

Dear all,

registration is now open for our course “Advanced R Programming”!

<https://www.physalia-courses.org/courses-workshops/course47/> When: 1-5 July 2019

Where: Free University of Berlin (Germany)

Instructors:

Dr. January Weiner (Staff scientist, Max Planck Institute for Infection Biology)

This course aims at giving the students abilities in R programming that go beyond basic R usage. This includes both learning important frameworks as well as tips & tricks and coding style.

Learning how to code is most effective if applied to a real problem. The students are highly encouraged to bring their own ideas for programs. A few ideas, however, will be provided.

Learning Outcomes:

• good coding practices

• sanitizing data, the tidyverse

• advanced graphics in R (both base R graphics and ggplot2)

• the R modelling interface

• using R for manuscript writing

• how to create own R packages

For more information about the program, please visit our website: <https://www.physalia-courses.org/courses-workshops/course47/> Here is the 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: info@physalia-courses.org

Best regards,

Carlo

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Crete Macroevolution Phylogenies Jul16-19

Dear evoldir members,

Transmitting Science is offering the course: USING GEIGER, PHYTOOLS, AND OTHER COMPUTATIONAL TOOLS TO STUDY MACROEVOLUTION ON PHYLOGENIES

Instructors: Dr. Liam Revell (University of Massachusetts Boston, USA) Dr. Luke J. Harmon (University of Idaho, USA)

Dates: July 16th-19th, 2019 Location: Heraklion, Crete (Greece)

PROGRAM

Tuesday, July 16th, 2019

Introduction to phylogenies and the comparative method. Introduction the basics of the R statistical computing environment. Introduction to reading, writing, manipulating, and visualizing phylogenies and comparative data in R. Models of phenotypic trait evolution on trees: Brownian motion. Simulating Brownian motion on trees using R. Introduction to the phylogenetic comparative method: Phylogenetic independent contrasts. Phylogenetic independent contrasts and exploring the properties of contrasts regression using simulation in R. Phylogenetic generalized least squares regression and phylogenetic generalized ANOVA.

Wednesday, July 17th, 2019

Multivariate statistical methods with phylogenies: Phylogenetic principal components analysis, canonical correlation analysis, and other approaches. Phylogenetic PCA and phylogenetic CCA in R. Continuous character models of trait evolution on phylogenies. Fitting continuous character models to univariate trait data in R. Ancestral state reconstruction I: Continuous characters. Reconstructing ancestral states for continuous traits on phylogenies using R.

Thursday, July 18th, 2019

Ancestral state reconstruction II: Discrete characters. Reconstructing ancestral states for discrete traits on phylogenies using R. Exploring the limitations of ancestral state reconstruction for continuous and discrete characters on phylogenies using R. Testing for the influence of one discrete character on a second using Pagels (1994) method. Exploring the promise and limitations of the Pagel (1994) method using R. Analysing discrete character coevolution, and the evolution of discrete and continuous characters using the threshold model.

Friday, July 19th, 2019

Fitting models of discrete and continuous character evolution on trees using the threshold model. Multi-rate, multi-regime, and multivariate models of character evolution on phylogenies. Fitting multi-regime and multivariate models for continuous character evolution in R. Visualizing trees and phylogenetic comparative data. Plotting phylogenies and comparative data using R. Wrap-up and optional additional exercise or lecture.

For more information and registration: <http://bit.ly/geiger-phytools-macroevolution> Contact: courses.crete@transmittingscience.org

Best regards,

Haris Saslis, PhD Course Coordinator Transmitting Science www.transmittingscience.org haris.saslis@transmittingscience.org

haris.saslis@gmail.com

Drobak Norway Phylogeography Aug26-30

Dear colleagues,

We are happy to announce a workshop on model-based demographic inferences of both single species and communities. The workshop aims to learn and apply new tools to elucidate phylogeographic patterns, biogeographic shifts and demographic responses of single- and multi-taxa as well as to contribute to knowledge exchange on methodological challenges and diverse biological systems for this cutting-edge field of research.

Time and place: Aug. 26, 2019 - Aug. 30, 2019; Tollboden, Drobak Marine Station, Norway (Oslo fjord).

Invited instructors are:

Michael Hickerson, Isaac Overcast (City college of New York), Champak Beeravolu Reddy (University of Fri-

bourg), Alexander Xue (Cold Spring Harbor Laboratory), Marcelo Gehara (American Museum of Natural History).

For more information and to apply, see the workshop webpage <https://www.forbio.uio.no/events/courses/-2019/Phylogeography> Participants: Maximum number of participants is 16.

The research school in Biosystematics (ForBio) and the University of Oslo programme “UiO:Life Science” fund the workshop. Hence, there is no course fee. Shared accommodation and food are covered/free of charge. The station has cooking facilities and participants will prepare food together in shifts. In addition, ForBio will cover travel for Norwegian ForBio members.

Coordinators: Hugo de Boer - ForBio and Marie Leys - University of Oslo.

Contact Marie Leys (marie.leys@ibv.uio.no) for more information about the workshop.

We are looking forward to meeting you in Droback.

Best regards,

Hugo de Boer and Marie Leys

Marie Leys <marie.leys@ibv.uio.no>

Edinburgh Genomics IntroToLinux Mar13

Dear All

We have a number of spaces remaining on our Introduction to Linux for Genomics course here at Edinburgh Genomics on the 13th March 2019.

This introduction to arguably one of the most important tools in a bioinformatician’s toolkit will take you from the very basics of command line computing through to some more complex tools regularly used by bioinformaticians. Through the course you will learn:

- The shell and commands - Getting help - File management & navigation - Permissions - Accessing files - Downloading remote files - Zipping and unzipping files - Pipes and redirects - Filtering / manipulating file content - Shell scripts - Process management - Command-line tools for genomics (seqtk, bioawk, samtools, bedtools, tabix)

The course will take place at the Kings Buildings Campus, University of Edinburgh, UK, EH9 3FL.

Cost: £225 (including lunch and refreshments)

NERC BURSARIES: Any UK based student or researcher funded by the NERC or working directly under their remit (<https://nerc.ukri.org/research/portfolio/-remit/>) may be eligible for a bursary covering up to their full course fee. If you qualify please get in touch with our training team edge-training@ed.ac.uk

For more information on this course and others coming up this spring, please see our website: <https://genomics.ed.ac.uk/services/training> Kind Regards

Nathan Medd

Training and Outreach Manager - Edinburgh Genomics G.06, Ashworth Laboratories, Charlotte Auerbach Road, The King’s Buildings, The University of Edinburgh, EH9 3FL, Edinburgh, Scotland

Edinburgh Genomics’ Privacy Notice can be viewed at: <http://genomics.ed.ac.uk/about-us/privacy-notice> This email and any attachments are confidential and intended solely for the use of the recipient(s) to whom they are addressed. If you have received it in error, please destroy all copies and inform the sender.

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

TRAIN edgenomics-training@ed.ac.uk

FridayHarborLabs EvolutionaryQuantitativeGenetics Jun10-14

Announcement of subsidy for participants from SSE and ASN:

The Evolutionary Quantitative Genetics Workshop, which takes place June 10-14 of this year at the Friday Harbor Laboratories of the University of Washington, is co-sponsored by the American Society of Naturalists and the Society for the Study of Evolution. Both societies have agreed to provide participants with \$200 compensation to offset the fee for the workshop. Each of the societies will compensate 13 participants, provided that they have become members of that society by the time of the Workshop. The fee for the EQGW being \$1,000, which covers housing, food, and registration for the Workshop, this amounts to a 20% compensation. For more information about this excellent workshop in a wonderful place, see its web page at the FHL site: <https://fhl.uw.edu/courses/course-descriptions/course/>

[evolutionary-quantitative-genetics-workshop-2019/](#) —
 Joe Felsenstein joe@gs.washington.edu Department of
 Genome Sciences and Department of Biology, University
 of Washington, Box 355065, Seattle, WA 98195-5065
 USA

Joe Felsenstein <joe@gs.washington.edu>

Prof. Dr. Gregor Bucher Georg-August-University Got-
 tingen Caspari Haus / GZMB Dpt. of Evolutionary De-
 velopmental Genetics Justus von Liebig Weg 11 37077
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 ibeetle.uni-goettingen.de

“Bucher, Gregor” <gregor.bucher@bio.uni-
 goettingen.de>

Gottingen MolTechniques Sep

Dear Colleague, please take note of two events on molec-
 ular Zoology that will take place in Gottingen, Germany
 in September 2019. Please forward to colleagues who
 might be interested. Sorry for any cross-posting! Thanks
 also for putting up our poster.

Background: Technological advances in genome editing,
 RNAi, sequencing and transgenesis have been a game
 changer in the study of gene function in all kinds of
 organisms. We want to discuss recent work based on
 these techniques and we want to foster their use.

Gottingen Symposium “Frontiers in Molecular Zoology”
 (PIs, postdocs and PhD) In this 2-day symposium, we
 want to bring together international scientists working
 on understanding the function of genes underlying all
 kinds of zoological phenomena. Some contributed talks
 will be selected from the submitted abstracts.

Invited speakers: Patrícia Beldade (IGC, Oeiras, Portu-
 gal) Jozef Vanden Broeck (KU Leuven, Belgium) Rosa
 Maria Fernández (CRG, Barcelona, Spain) Jochen Rink
 (MPI, Gottingen, Germany) Martin Beye (University
 Dusseldorf, Ger.)

Gottingen SPIRIT Summer school “Molecular Genetics
 in Zoology” (for PhD and postdocs)

We offer a 3-day hands on training on these methods
 prior to the symposium. We will discuss the application
 of these tools to the particular projects of the partici-
 pants. The aim is that you will leave Gottingen with
 an enhanced working plan for your project. This part
 is restricted to 20 PhD students or postdocs.

You may plan joining only the symposium or the summer
 school including the symposium.

Please find more information on our website: http://www.uni-goettingen.de/summer_school See you in Got-
 tingen!

Gregor Bucher Christoph Bleidorn, Daniel Jackson, Nico
 Posnien, Ernst Wimmer

IndianaU R TranscriptAssembly Feb11-May1

We have two upcoming workshops this Spring Semester
 and both are open for registration. They tend to fill up
 fast, so please apply early!

Supercomputing for Everyone Series: Introduction to R
 for Biologists APPLICATION DEADLINE: None - but
 the workshops are already over 2/3 full

In this three day workshop, learn about the basics of the
 R language - structure, data types, and functions - that
 will help you read and write R. The first day will cover
 the basics of the language, the second day will cover
 basic visualization of mapping and ordination data, and
 the third day will dive into classes and writing your own
 functions. A lecture and Lab will be taught on each day,
 February 11, 18, and 25 from 1pm - 4pm Eastern Time.

This workshop is being offered at IU-Bloomington,
 IUPUI, and online. Lectures will be streamed via zoom,
 materials are available online for labs, and online office
 hours will be provided for online participants through
 slack.

For more details and registration:

IUB or online: <http://go.iu.edu/28Se> IUPUI or online:
<http://go.iu.edu/28Sk> Supercomputing for Everyone
 Series: de novo assembly of transcriptomes using HPC
 resources workshop APPLICATION DEADLINE MON-
 DAY FEBRUARY 25 at 5pm! Selections will be made
 by mid March.

The National Center for Genome Analysis Support (NC-
 GAS) at Indiana University seeks interested participants
 for this FREE National Science Foundation-sponsored
 three-day workshop.

Registration page: <http://go.iu.edu/29rf> NCGAS is
 offering a National Science Foundation-sponsored, three-

day workshop on high performance computing (HPC) usage and de novo transcriptome assembly. It will take place April 29-May 1st on the IU Bloomington campus. Registration is free, but application is required.

The workshop will include discussions, lectures, and hands-on tutorials to cover topics important to getting started constructing and analyzing transcriptomes without the use of a genome. Material covers both the availability and use of HPC resources, alongside the task of assembling a new transcriptome, in order to provide a more comprehensive preparation for this and future bioinformatic tasks.

Transcriptome assembly will consist of using four separate assemblers (Trinity, SOAP de novo, Velvet Oases, and TransABySS), with multiple kmers, to be combined and curated with Evidencem. This combined assembly with multiple parameters is considered much more robust than simply using one assembler, and the NCGAS pipeline streamlines the process and allows for customization if desired.

While material will make heavy use of XSEDE and IU machines, the material is transferable to any cluster.

Please direct questions to ss93@iu.edu

Sheri Sanders Bioinformatic Analyst National Center for Genome Analysis and Support (NCGAS)

NCGAS is a management unit of the Research Technologies division of UITS; NCGAS is affiliated with the Indiana University Pervasive Technology Institute.

“Sanders, Sheri” <ss93@iu.edu>

plan to make your project more financially sustainable and successful: - Learn how to secure funding from private foundations; -Hone your skills in strategic planning, financing, and communication; and, - Network with colleagues who face similar challenges.

Discover what you’ll learn - View the course outline at:

Discover what makes SBI training unique (video): <https://esa.org/sbi/about/video/> Bring a colleague and save! It helps to attend our training as a pair (or group!) so you can brainstorm and implement your action plan together. Bring a colleague from your project and save \$200 on their course fee.

Co-located with Digital Data Conference: We are excited to co-locate our Spring course with the 3rd Annual Digital Data in Biodiversity Research Conference, “Methods, Protocols, and Analytical Tools for Specimen-based Research in the Biological Sciences”. This year’s conference will be hosted by the Yale Peabody Museum of Natural History in collaboration with iDigBio of the Florida Museum of Natural History. The conference begins on June 10th, and registration is only \$50 if you are also attending the SBI course. Register early- space is limited!

Conference details: <https://www.idigbio.org/content/save-date-methods-protocols-and-analytical-tools-specimen-based-research-biological-sciences#overlay-context> Register now: <https://www.eventbrite.com/e/3rd-annual-digital-data-conference-methods-protocols-and-analytical-tools-for-specimen-based-tickets-54760252389> Emily Mastrianni <emily@esa.org>

NewHaven BiologicalInfrastructure Jun12-14

Subject: Workshop: Sustaining Biological Infrastructure

Communication, Planning, & Finances: Learn Tools to Make Your Project Successful Strategies for Success: Training for Project Directors June 12-14: New Haven, CT

Who Should attend: Ideal applicants include Directors and Principal Investigators of biological infrastructure projects such as digital data resources, museum and living stocks collections, field stations, and marine laboratories.

Come spend 3 days with us where you will: - Create a

Ploen TransgenerationalInheritance Nov6-8

Dear colleagues,

We would like to announce a workshop on “Causes and Consequences of Transgenerational Inheritance”, which will take place at the Max Planck Institute for Evolutionary Biology in Plön, Germany, between the 6th and 8th of November 2019.

Workshop Description: Parental effects occur when the phenotype of one or both parent(s) affects the phenotype of offspring beyond direct effects of genetic inheritance. Effects can be maladaptive, for instance when offspring lifespan and/or reproductive success are reduced because of transgenerational senescence, or adaptive, for example when parasite exposure of parents primes the

immune responsiveness of offspring. From a mechanistic perspective, the question which processes underlie transgenerational inheritance remains open. Moreover, from an evolutionary point of view, the fitness consequences of transgenerational inheritance and its impact on adaptation to changing environments are also mostly unknown. In this workshop, we aim to discuss examples of transgenerational inheritance in natural populations of non-model organisms, potential mechanisms underlying such patterns, as well as its evolutionary underpinnings and consequences.

Plenary speakers: Sandra Bouwhuis (Institute of Avian Research, Germany), Alexei Maklakov (University of East Anglia, UK), Eric Miska (University of Cambridge, UK), Pat Monaghan (University of Glasgow, UK), Bram Kuijper (University of Exeter, UK) & Tobias Uller (Lund University, Sweden).

Format: Plenary talks are scheduled for 30 min (25 + 5 min for questions), classic talks for 15 min (12 + 3 min for questions). Poster presenters are invited to give a 3 min flash talk at the start of the workshop to advertise their poster prior to the poster session.

Costs: We do not charge a registration fee. A limited number of travel grants will be available on a competitive basis. To apply, please explain your funding situation, indicate your motivation for joining the meeting and send your abstract and CV to transgenin@evolbio.mpg.de.

Registration: Abstract submission is open until April 30th, registration until October 21st. We will inform participants about the outcome of abstract selection by early June. For registration and abstract submission, please use our website: <https://workshops.evolbio.mpg.de/event/14/> We are looking forward to meeting you in Plön! Kind regards, Britta Meyer (MPI, Plön), Miriam Liedvogel (MPI, Plön), Melanie Heckwolf (GEOMAR, Kiel) & Sandra Bouwhuis (Institute of Avian Research, Wilhelmshaven)

Transgenerational Inheritance Workshop
<transgenin@evolbio.mpg.de>

Portugal Wildlife Conservation Apr8-11

During this 4 days course we will expose students to the scientific basis and practical applications of the study of wildlife population biology. The modern study of wildlife population ecology orchestrates a dance at the

interface of reliable fieldwork and the use of mathematical tools and population genetic techniques. Students will learn how to collect the data necessary to study wildlife populations, and how to assess the factors that affect population growth and interactions with other species. This will include descriptors of population dynamics (eg. trends in abundance, cycles), projections of deterministic and stochastic population models with stage structure, mechanisms and modeling of density dependence (positive and negative), targeting specific conservation actions through sensitivity analysis, metapopulation and source-sink dynamics, viability analysis, and the interface between genetic variation and population performance. The focus will be on how to rigorously analyze population dynamics and apply the inferences to better conservation decision-making.

By the end of the course, students should have the confidence to advance both management and research by effectively using data, models, and the ecological concepts to address pressing questions involving the harvest, monitoring, and conservation of wildlife populations.

Click <https://cibio.up.pt/workshops-courses/details/advanced-course-archaeogenetics-approaches-to-investigate-domestication-and-evolution#prettyPhoto> here to see the programme for the course.

COURSE INSTRUCTORS

<http://www.umt.edu/research/millslab/> L. Scott Mills - University of Montana

<https://cibio.up.pt/people/details/psmonter> Pedro Monterroso - CIBIO-InBIO | CONGEN

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: February 07, 2019

To apply, please fill the form available

<https://docs.google.com/forms/d/e/1FAIpQLScjwC0JnsPUg2xXxVOMC31B8hvsap8OVbMGZhdgnieliBp1viewform?usp=pp-url> HERE

Participation is free of charge for BIODIV students | 95 €(students) | 200 €(other participants). CIBIO-InBIO members will have an additional discount of 20%. All applicants will be notified about whether they are

accepted until February 18, 2019.

<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 Investigaçao em 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://inbio-la.pt>

f: <https://www.facebook.com/cibio.inbio>

CIBIO-InBIO Divulgaçao divulgacao@cibio.up.pt

Princeton EvolDiseaseControl Jun9-10

Dear all,

We are currently accepting applications to participate in an RCN-IDEAS (<http://ideas.princeton.edu>) funded workshop on “Evolutionary Consequences of Feedbacks Between Within-host Competition and Disease Control, to be held at Princeton University, June 9-10, 2019.

Accepted applicants will receive funding for transportation to/from Princeton, accommodation and meals during the workshop, and the registration fee for the 2019 EEID conference that follows the workshop (note that accommodation and meals during the conference are not covered; <http://ideas.princeton.edu/eeid-2019/>).

A detailed description of the summary, goals, and confirmed participants is below and can be found here: <http://ideas.princeton.edu/future-workshops-2/>. To apply, submit your CV and a cover letter (1 page maximum) describing your interest in participating in this workshop, including relevant background/data/models and the types of questions that most interest you. Please email your full application by March 31, 2019 to nicole.mideo@utoronto.ca, with the subject line ¥2019

RCN-IDEAS Workshop.

Summary Health interventions and within-host competition are two of the most potent sources of selection on parasites. Each has some well characterized effects on parasite traits: the evolution of resistance is a predictable consequence of drug treatment, while competition within a host drives the evolution of virulence (either higher or lower, depending on the system). Yet the feedbacks between these processes have only partially been mapped. For instance, competition within an infection can influence the efficacy of drug treatment and the likelihood of a resistant mutant spreading, but the best ways to exploit or mimic competitive effects to slow resistance evolution are unclear. Similarly, disease control efforts V when effective V can reduce the prevalence of infection, which should alter the frequency of coinfection and thus the fitness landscape for virulence, yet few predictions about the efficacy of control measures account for the role of such epidemiological feedbacks in modulating disease severity.

Goals This workshop aims to bring together evolutionary biologists, disease ecologists, epidemiologists, and microbiologists to understand the scope and implications of feedbacks between within-host competition and disease control efforts. Focal questions will be generated at the meeting based on participant interest, but possible topics include the following.

- When is single- versus multiple-infection a useful dichotomy, and when is it necessary to consider a continuum of infection outcomes based on parasite diversity within the host?
- How does coinfection alter key epidemiological parameters (transmission rate and infection duration)?
- Are there predictable patterns across systems?
- When does diversity of infection, in the absence of variation in resistance, influence treatment outcomes?
- To what extent do mechanisms underlying competition need to be understood in order to be exploited for public health gain?
- Are there systems for which that level of understanding has been achieved?
- Is there a predictable relationship between prevalence of infection and frequency of coinfection?
- Given that many public health interventions exert direct selection on parasite traits (e.g., selection for resistance under drug treatment), are there cases where the potential for indirect selection via epidemiological feedbacks will be particularly important?

Researchers with relevant datasets, mathematical models, or statistical tools will work in breakout sessions organized around these focal questions (or others, depending on the interest of participants), identifying the most fruitful approaches for answering them.

Organizers Nicole Mideo & Megan Greischar (University

of Toronto)

Invited participants - Helen Alexander (Oxford) - Farrah Bashey-Visser (Indiana University) - Sebastian Bonhoeffer (ETH Zurich) - Mary Bushman (Emory University) - Lauren Childs (Virginia Tech) - Andrew Read (Penn State) - Nina Wale (University of Michigan) - Helen Wearing (University of New Mexico) - Pamela Yeh (UCLA)

Nicole Mideo <nicole.mideo@me.com>

QuebecCity SpeciationGenomicsAndGWAS Sep2-6

Dear all,

following the success of last year, we are happy to inform you that we are offering other two new full-week courses at Laval University (Quebec City, Canada) this September.

1) Speciation Genomics - 2-6 September 2019 - (<https://www.physalia-courses.org/courses-workshops/-course37/>)

Instructors: i) Dr. Mark Ravinet (Univeristy of Oslo, Norway); ii) Dr. Joana Meier (University of Cambridge, UK).

Overview: This course will provide a thorough introduction to the growing field of speciation genomics. The course aims to take students from the initial steps required for handling raw sequencing data to demographic modelling and inference of genome-wide signatures of selection and introgression. Through a combination of lectures covering key theoretical and conceptual topics, alongside hands-on exercises, participants will learn the most important computational approaches used in speciation genomics. This will include a heavy emphasis on data visualization and interpretation. After completing of the course, the participants should be able to begin using NGS data to shed light on the genomic aspects of speciation in their study system of choice.

2) GWAS - 9-13 September 2019 - (<https://www.physalia-courses.org/courses-workshops/-course49/>)

Instructors: i) Dr Filippo Biscarini (CNR, Italy); ii) Eric Normandeau (Laval University, Canada)

Overview: This course will introduce students, re-

searchers and professionals to the steps needed to build an analysis pipeline for Genome-Wide Association Studies (GWAS). The course will, on one hand, describe all the necessary steps involved in a typical GWAS study; on the other hand, we will build a reusable and reproducible GWAS pipeline.

Here is the full list of our courses and Workshops: (<https://www.physalia-courses.org/courses-workshops>)

Should you need any further information, please do not hesitate to contact us: 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

Saclay France ModelsInEvolution Jul8-12

Dear colleagues,

We are organizing a summer school at the Institut Pascal (Saclay, FRANCE), entitled "Data and Models in Ecology and Evolution". It will take place from 8 to 12 July 2019.

This school is intended for pre-doctoral and doctoral students, as well as post-doctoral researchers in Mathematics and Biology.

The aim of the summer school is to introduce to and provide from basic to advanced training in mathematical modeling and data analysis for ecology and evolution, and to facilitate interactions between theoretical mathematicians, mathematical modelers, data analysts, and evolutionary biologists.

The invited lecturers are:

Steve Beissinger (University of California, Berkeley) Sylvain Billiard (Université de Lille) Amaury Lambert (Collège de France, Sorbonne Université) Stéphane Robin (INRA, AgroParisTech) Suzanne Touzeau (INRA)

Funding for travel and accommodation can be provided by the Institut Pascal.

For more information and to apply, see here :

<https://www.universite-paris-saclay.fr/fr/data-and-models-in-ecology-and-evolution> Do not hesitate to forward this announcement to anyone who may be interested.

Sincerely, The organizing and scientific committee D. Abu Awad, G. Achaz, A. Becheler, C. Coron, S. Dupas, F. Jay, A. Olivier, M. Sedki, S. Stoeckel, A. Véber

“Abu-Awad, Diala” <diala.abu-awad@tum.de>

UCalifornia LosAngeles ConservationGenetics Mar23-27

UCLA/La Kretz Workshop in Conservation Genomics,
23 - 27 March, 2019

Conservation biology, genetics, and evolutionary biology have had a long and intimate relationship, and conservation constitutes one of the key applications of evolutionary analysis to real-world biological problems. The impacts of population and landscape genetics and gene expression studies have been particularly striking, and are helping to solve some of the most pressing problems in biological conservation.

As the field of conservation genetics continues to grow and mature, the availability of genome-scale data stand to make profound new contributions to our ability to identify and protect at-risk populations and recover those that are most endangered. However, genomic analyses also carry a computational burden—data sets are enormous, often require diverse skills and approaches for assembly, quality control and analysis.

The La Kretz annual workshop provides a comfortable, rigorous, and informal training environment for a small group of motivated graduate students to explore how conservation problems can best be addressed with genomic-level data. Our goal is to provide hands-on experience in the efficient collection, troubleshooting, and analysis of large data sets for conservation-relevant problems. One of the highlights of our workshop is active participation from members of several governmental agencies who are at the forefront of endangered species protection and management, providing a forum for exploring the most relevant aspects of conservation genomics to managers.

This year, the Woolsey fire destroyed most of our beloved UCLA/La Kretz Field Station (<https://->

www.ioes.ucla.edu/santa-monica-mountains-research/) where we normally house the workshop. However, through an incredibly generous subsidy, we will house participants this year at the Calamigos Ranch next door (<https://www.calamigos.com>), with classes at the UCLA Stunt Ranch Reserve (<http://stuntranch.ucnrs.org/>), both in the heart of the Santa Monica Mountains. Only 30 miles from UCLA and the LAX airport, but nestled in the relatively undeveloped 160,000 acre Santa Monica Mountains National Recreation Area, Calamigos is a gorgeous setting, and Stunt Reserve provides an ideal location to explore new developments in genomic science and pressing needs in conservation and management together in a single setting.

Our current instructor list, drawn from UCLA faculty and several other partner institutions, includes:

Gideon Bradburd (Michigan State University) Ben Fitzpatrick (U. Tennessee Knoxville) Zach Gold/ Emily Curd Ryan Harrigan Kirk Lohmueller Evan McCartney-Melstad Alice Mouton Brad Shaffer Victoria Sork Erin Toffelmier Ian Wang (UC Berkeley, tentative) Bob Wayne

Agency partners represented: US Geological Survey, Bureau of Land Management, US Fish and Wildlife Service, California Department of Fish and Wildlife, The Nature Conservancy.

Topics covered:

Overview of traditional conservation genetics Next generation platforms: the best tool for the job Data management pipelines: Quality Control Data storage Data organization Data types and analyses: SNPs Sequences Exploring very large data sets Functional genomic data RNA-seq RADseq pipelines, from raw reads to analyzing data Genomic data and GIS Visualizing geographic structure and demographic history Admixture, clines, and hybridization Detecting adaptive variation RNAseq in a conservation context eDNA: promise and reality

Prerequisites Available housing limits course enrollment to ~20 students. Preference will be given to masters and doctoral candidates who are in the early to middle stages of their thesis research, and who have some familiarity with using a command line interface or programming languages (i.e. Perl, python etc.). We also welcome applications from postdocs, faculty, and government researchers. We encourage applications from women, minorities, and individuals from under-represented demographics in the sciences.

ADMISSION AND FEES

Applicants will be admitted based on academic qualifications and appropriateness of research interests. The

course fee is \$475. This includes food and lodging at Calamigos, as well as all incidental fees, for the duration of the course (arriving Saturday March 23, departing Thursday March 28).

UCLA students are encouraged to take the La Kretz Workshop for graduate credit. Other UC students may also be able to take the course for credit. We will provide documentation of the course if needed at your home institution.

Application Forms and Information Visit the UCLA/La Kretz Center for California Conservation Science website for additional information and to download an application form:

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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>

UCalifornia LosAngeles ConservationGenomics Mar23-27

Second Notice:

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UC London ModelsInEvolution Jul8-12

Dear Sir/Madam,

I am interested in the 'Data and Models in Ecology and Evolution' summer school running from the 8th-12th of July 2019. I am currently enrolled in a postgraduate masters course at UCL and so do not have a PhD supervisor; however, I will be looking to undertake one in future.

I've noticed on the attachment on your email that you require a letter of recommendation from a PhD supervisor as a condition of application. Would it be possible to apply/attend without having a PhD supervisor currently?

Any information would be greatly appreciated. I look forward to hearing from you.

Kind regards,

Ryan Brewer

“Brewer, Ryan Frederick Arthur”
<ryan.brewer.18@ucl.ac.uk>

Vostok Russia MolluscSystematics Sep17-27

Course on Systematics, Morphology and Evolution of Marine Molluscs

Marine Biological Station Vostok (Vladivostok), Russia, 17V27 September 2019

The University Museum of Bergen (University of Bergen, Norway), Shirshov Institute of Oceanology (Russia), National Scientific Center of Marine Biology, Russian Academy of Sciences (Russia), and ForBio (Research School in Biosystematics) jointly offer an International Course on Systematics, Morphology and Evolution of Marine Molluscs.

The course will cover a wide range of taxa including aplacophorans, polyplacophorans, gastropods, bivalves, cephalopods, and scaphopods. The lectures will address various theoretical questions in molluscan biology, morphology and systematics. Major hypotheses on the phylogenetic relationships between the main molluscan clades will be addressed and evolutionary adaptations to various, sometime extreme, marine biotopes will be discussed. During the lab work we will study external and internal morphology of selected Mollusca taxa and perform anatomical dissections. Species used in the course will be collected by professional divers but also by the students during the intertidal and small boat field trips in the vicinity of the Station.

PhD candidates will be given priority, but based on availability MSc students and postdoctoral researchers on the beginning of their careers may also be considered.

Read more here: https://www.forbio.uio.no/events/-courses/2019/Molluscs_Vladivostok Application deadline

April 1st, 2019

Contact: Nataliya Budaeva (nataliya.budaeva@uib.no) - ForBio coordinator

Manuel Malaquias, Associate Professor Department of Natural History Section of Taxonomy and Evolution University Museum of Bergen University of Bergen PB7800 5020 Bergen Norway

<http://www.uib.no/persons/Manuel.Malaquias> <http://www.uib.no/en/rg/mollusca> Associate editor: Journal of Molluscan Studies <http://mollus.oxfordjournals.org> Invertebrate Systematics <https://www.publish.csiro.au/is> Manuel.Malaquias@uib.no

Instructions

Instructions: To be added to the EvoDir mailing list please send an email message to Golding@McMaster.CA. At this time provide a binary six letter code that determines which messages will be mailed to you. These are listed in the same order as presented here — Conferences; Graduate Student Positions; Jobs; Other; Post-doctoral positions; WorkshopsCourses. For example to receive the listings that concern conferences and post-doctoral positions this would be 100010. Messages are categorized on the basis of their subject headings. If this subject heading is not successfully parsed, the message will be sent to me at Golding@McMaster.CA. In addition, if it originates from ‘blackballed’ addresses it will be sent to me at Golding@McMaster.CA. These messages will only be read and dealt with when I have time. The code 000000 has all channels turned off and hence gets only a once monthly notification of the availability of a monthly review pdf file.

To be removed from the EvoDir 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 EvoDir direct them to the email evodir@evol.biology.McMaster.CA. Do not include encoded attachments and do not send it as Word files, as HTML files, as L^AT_EX files, Excel files, etc. . . . plain old ASCII will work great and can be read by everyone. Add a subject header that contains the correct category “Conference:, Graduate position:, Job:, Other:, Postdoc:, Workshop:” and then the message stands a better chance of being correctly parsed. Note that the colon is mandatory.

The message will be stored until the middle of the night (local time). At a predetermined time, the collected messages will be captured and then processed by programs and filters. If the message is caught by one of the filters (e.g. a subject header is not correctly formatted) the message will be 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 preformatting is collapsed to save space. At the current time, many features may be incorrectly handled and some email messages may be positively mauled. Although this is being produced by L^AT_EX do not try to embed L^AT_EX or T_EX in your message (or other formats) since my program will strip these from the message.