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# E v o l D i r

November 1, 2018

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

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## 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](mailto: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.



Foreword .....	1
Conferences .....	2
GradStudentPositions .....	10
Jobs .....	61
Other .....	109
PostDocs .....	118
WorkshopsCourses .....	167
Instructions .....	189
Afterword .....	189

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## Conferences

Berlin WildlifeConservation Sep30-Oct2 .....	2	Miami EvolDevoBiol Jul31-Aug4 .....	6
ColdSpringHarbor GenomicsModeling Nov4-7 .....	3	NHM London YoungSystematists Nov23 .....	6
Granada FloralEvolution Mar14-16 .....	3	Providence RI Evolution2019 CallForSymposia Jun21-25 .....	7
Helsinki EvolutionaryEntomology Jul19-24 .....	4	Toulouse EcologyBehaviour May19-24 .....	8
Hinxton UK MathBiology Apr25-26 .....	4	UMiami EvolutionaryDemography Jan10-12 .....	8
London MicrobePhylogenies Dec10-11 .....	5	UZurich EvolBiology Feb7-8 .....	9
Manchester SMBE Jul21-25 CallForSymposia .....	5		
Manchester SMBE Jul21-25 CallForSymposia 2 .....	6		
Marseilles EvolBiol Sep24-27 EarlyDeadLine .....	6		

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### Berlin WildlifeConservation Sep30-Oct2

Wildlife Research and Conservation 2019 (WRC2019)

Welcome & save the date!

September 30<sup>th</sup> - October 2<sup>nd</sup>, 2019

in Berlin, Germany

Wildlife Research and Conservation 2019 (WRC2019) aims to foster an exchange of ideas between wildlife scientists from different disciplines. We welcome contributions to the following topics: Life-history and Phenotypic plasticity, Social behaviour/Mating systems, Hormones & Behaviour, Conservation Genetics and Conservation. In addition, renowned external scientists will organise sessions and hands-on workshops, providing new perspectives on topics such as capture-mark-recapture methods, movement ecology, assisted reproduction techniques, and ethical questions linked to fieldwork projects and management interventions.

WRC2019 is jointly organised by the Leibniz Institute for Zoo and Wildlife Research (Leibniz-IZW) and the European Association of Zoos and Aquaria (EAZA); it

is the successor of the International Conference on Behaviour, Physiology and Genetics of Wildlife. WRC2019 will start on Monday, September 30<sup>th</sup>, 2019 and will continue until Wednesday, October 2<sup>nd</sup>, concluding with the conference dinner. We will also offer several exciting excursions in and near Berlin on Thursday, October 3<sup>rd</sup>!

Subscription and details on the conference program will follow soon.

We look forward to welcoming you in Berlin!

Sarah Benhaiem, Anne Berger, Oliver Honer, Conny Landgraf, Josepha Prugel and Viktoriia Radchuk

For questions, please contact us at [symposium@izw-berlin.de](mailto:symposium@izw-berlin.de).

Conference website: <http://www.izw-berlin.de/welcome-234.html> Leibniz Institute for Zoo and Wildlife Research (IZW) of the Forschungsverbund Berlin e.V.

Alfred-Kowalke-Str. 17 10315 Berlin GERMANY  
P.O.Box 70 04 30, 10324 Berlin Tel. + 49 - 30 - 51 68 - 127 (Mon-Thu) Fax + 49 - 30 - 51 26 - 104

<http://www.leibniz-izw.de> Josepha Prugel

“Prugel, Josepha” <[pruegel@izw-berlin.de](mailto:pruegel@izw-berlin.de)>

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## ColdSpringHarbor GenomicsModeling Nov4-7

PROBABILISTIC MODELING IN GENOMICS CONFERENCE (ProbGen'18)

Nov 4 - 7, 2018 at Cold Spring Harbor Laboratory

We are pleased to announce the second Cold Spring Harbor conference on Probabilistic Modeling in Genomics (part of the international series of meetings now in its 4th year) which will be held at Cold Spring Harbor Laboratory, New York. The meeting will begin with dinner and an evening session on Sunday, November 4, 2018, and conclude with lunch on Wednesday, November 7.

ORGANIZERS:

Gerton Lunter, University of Oxford, UK

Molly Przeworski, Columbia University

Adam Siepel, Cold Spring Harbor Laboratory

CONFIRMED KEYNOTES:

Katherine Pollard, UCSF/Gladstone Institutes

Matthew Stephens, University of Chicago

TOPICS:

1-Population Genetics I: Mutation, Recombination & Demography Inference

2-Population Genetics II: Natural Selection

3-Transcriptomics and Epigenomics

4-Quantitative Genetics and Association Mapping

5-Systems and Structural Biology

6-Cancer, the Microbiome, and Beyond

CO-CHAIRS:

1-David Balding, The University of Melbourne, Australia

2-Emily Davenport, Cornell University

3-Barbara Engelhardt, Princeton University

4-Kelley Harris, University of Washington

5-Michael Hoffman, University of Toronto, Canada

6-Smita Krishnaswamy, Yale University

7-Kirk Lohmueller, University of California, Los Angeles

8-Deborah Marks, Harvard University

9-David McCandlish, Cold Spring Harbor Laboratory

10-Quaid Morris, University of Toronto, Canada

11-Sohini Ramachandran, Brown University

12-Sriram Sankararaman, University of California, Los Angeles

<https://meetings.cshl.edu/meetingshome.aspx> “Gill, Irene” <gill@cshl.edu>

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## Granada FloralEvolution Mar14-16

Dear all,

>From EvoFlor (evoflor.org) we are pleased to invite you to the 16th Annual Meeting of the Spanish Group for Floral Ecology EcoFlor2019 . This year the meeting will take place in Granada (Spain) from Thursday 14 to Saturday 16 of March of 2019. The University of Granada and its Faculty of Sciences allow us the space to hold the meeting in the center of the city.

This year and continuing with the tradition in EcoFlor we will have \*plenary talk sessions\* and the classic talks and discussions. However, we have some novelties for this year. We decided to include \*poster contributions\* that will be exposed during all the meeting to promote the questions and discussion on them. To open EcoFlor to non-Spanish speakers, \*this year any communication presented must be in English\*. Probably the relaxed atmosphere will allow some discussions to start in English and end in Spanish and vice versa. The beers will definitely help with this. This year we also want to continue with one of the original ideas of EcoFLOR meetings, picked up last year by the organizers of the EcoFlor in Mallorca, organising a couple of \*round table discussion\* on some topics of general interest in order to generate discussions in the audience. In addition, we will also have a couple of \*workshops\* for the day before: first on \*creativity in science\* organised by \*Isabel Reche\* and \*Francisco Perfectti\* and a second on \*integral projection models\* organized by \*Maria Paniw\* and \*Irene Martín\*. The number of participants in both workshops are limited and it will be decided by strict registration/application order.

Plenary speakers and talks (so far):

\*Dr. María Clara Castellanos\* University of Sussex. United Kingdom

Talk title: \*Selection and heritability in the wild: understanding floral trait stasis and evolvability\*

\*Prof. Gonzalo Nieto-Feliner\* Real Jardín Botánico de Madrid. Spain

Talk title: \*The role of hybridization in evolution. Hybrid speciation, adaptive introgression and no man's land in between?\*

The registration is now open till January 15th. You can find the form for registration and abstract submission in the EcoFlor2019 website: <https://ecoflor2019.weebly.com/>. You can also contact me for further questions.

We would really appreciate if you help us to disseminate this information to everyone interested.

Thank you and all the best,

Moha

PD: Sorry for the massive posting!

–

\*Mohamed ABDELAZIZ MOHAMED PhD\*  
Room #8, Third Floor - Biological Building  
<mabelazizm@gmail.com> Department of Genetics  
<\*mabelazizm@ <mabelazizm@ugr.es>ugr.es  
< <http://ugr.es/>>\* > Faculty of Sciences

Campus Fuentenueva University of Granada Granada, Spain, 18071 \*tel:\* +34 958 246317 <https://mabelazizm.weebly.com> \*fax:\* +34 958 244073 <http://www.viajarpormarruecos.blogspot.com/> "FELIX QUI POTUIT RERUM COGNOSCERE CAUSAS"

Mohamed Abdelaziz <mabelazizm@gmail.com>

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## Helsinki EvolutionaryEntomology Jul19-24

Subject: a call for symposia for the International Congress of Entomology (Helsinki, Finland, July 19-2, 2020).

Dear colleagues,

The next International Congress of Entomology will be held in Helsinki, Finland in 2020 July 19-24 (<http://ice2020helsinki.fi/>).

There will be 15 sections (including Ecology, Evolution and Behaviour) and each section is supposed to accommodate ca. 10-15 symposia.

Symposium presentations will be 15 minutes each (including time for questions), allowing for the possibility

of one  $\frac{1}{2}$  double-presentation<sup>2</sup>/keynote talk of 30 minutes (i.e. 20 minutes for the talk and 10 minutes for questions/discussion). There will be eight presentations per symposium (or seven if a keynote talk is included).

Proposals to organize a symposium at ICE2020Helsinki should be submitted via the on-line submission system ([https://submit.peeraofscience.org/conference/-ICE\\_2020](https://submit.peeraofscience.org/conference/-ICE_2020)).

Proposals should include a brief background/justification, the names of the organizers, a preliminary list of potential speakers, and any other relevant issues.

Deadline: 30 October 2018.

Please note that original requirements to have a "local" co-organizer and some other restrictions have been removed.

All further details can be found here: <https://ice2020helsinki.fi/call-for-symposia/> Thank you, Dmitry.

"Dmitry Musolin ( $\frac{1}{4}\tilde{N}\tilde{N}\epsilon^1$   $\tilde{N}\tilde{N}\frac{3}{4}\gg\frac{1}{2}$ )"  
<musolin@gmail.com>

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## Hinxton UK MathBiology Apr25-26

MASAMB 30 years edition (1989-2019)

We are pleased to announce the dates for the 30 years edition of the annual Workshop on Mathematical and Statistical Aspects of Molecular Biology (MASAMB) 2019 - please mark your diaries!

Registration opens 15th November 2018 - further information will follow in due course.

Conference: MASAMB 2019

Dates/times: 11.00 Thursday 25th April - 15.00 Friday 26th April 2019

Place: European Bioinformatics Institute, Hinxton, UK

Accommodation: limited on-site accommodation will be assigned in order of registration

With best wishes from the Local Organising Committee:

Nick Goldman (EMBL-EBI)

Gos Micklem (CCBI, University of Cambridge)

Nicola De Maio (EMBL-EBI)

Nicola de maio <demaio@ebi.ac.uk>

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**London MicrobePhylogenies  
Dec10-11**

Dear all

A reminder that the Royal Society is organising the upcoming Single cell ecology meeting on 10-11 December 2018 in London, UK, on behalf of Professor Thomas Richards, Dr Ramon Massana and Professor Neil Hall.

This will be an interdisciplinary meeting to explore the use of single cell technologies to understand the function, diversity and interactions of microbes. This meeting aims to bring together physicists, microbiologists and genomicists, and evolutionary biologists who are trying to sample microbes and understand where they branch on the tree of life. There will be an opportunity to present a poster in the poster session. The deadline to submit a poster abstract is Monday 22 October.

More information on how to submit a poster, view the programme of talks and how to register can be found here:

<https://royalsociety.org/science-events-and-lectures/-2018/12/single-cell/> There are still places remaining for the meeting. We want to ensure the participants are as diverse as possible, so please do let those who may not have heard about the meeting know.

Best wishes

Anh

Anh Ho

Scientific Programmes Officer

T +44 20 7451 2275

The Royal Society 6-9 Carlton House Terrace London SW1Y 5AG [royalsociety.org](http://royalsociety.org)

Registered Charity No 207043

Scientific Meetings <[scientific.meetings@royalsociety.org](mailto:scientific.meetings@royalsociety.org)>

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**Manchester SMBE Jul21-25  
CallForSymposia**

The deadline for proposal submission is November 02, 2018.

SMBE 2019 Call for Symposia

Society for Molecular Biology & Evolution

[smbe@allenpress.com](mailto:smbe@allenpress.com)

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

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

For more details and to submit your proposal please visit the meeting website at <http://smbe2019.org/call-for-symposia/> (<https://t.e2ma.net/click/x1u2o/9yk2r1/-5317tf>). The deadline for proposal submission is November 02, 2018. Successful applications will be confirmed by the middle of November.

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

Sincerely,

The Local Organising Committee

SMBE 2019 Manchester, UK

(<https://t.e2ma.net/click/x1u2o/9yk2r1/lw27tf>)

810 East 10th Street | Lawrence, KS 66044 US

Society for Molecular Biology & Evolution  
<[smbe@allenpress.com](mailto:smbe@allenpress.com)>

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## Manchester SMBE Jul21-25 CallForSymposia 2

SMBE 2019 Call for Symposia

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For more details and to submit your proposal please visit the meeting website at <http://smbe2019.org/call-for-symposia/>. The deadline for proposal submission is November 02, 2018. Successful applications will be confirmed by the middle of November.

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

Sincerely, The Local Organising Committee SMBE 2019  
Manchester, UK

“Lulu Stader (SMBE admin)”  
<[smbe.contact@gmail.com](mailto:smbe.contact@gmail.com)>

– Dr Lulu Stader Executive Administrator, Society for Molecular Biology and Evolution  
[smbe.contact@gmail.com](mailto:smbe.contact@gmail.com) <[smbe.meetings@gmail.com](mailto:smbe.meetings@gmail.com)>

“Lulu Stader (SMBE admin)”  
<[smbe.contact@gmail.com](mailto:smbe.contact@gmail.com)>

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## Marseilles EvolBiol Sep24-27 EarlyDeadLine

Dear all the early dead line for the

23rd evolutionary biology meeting at Marseilles September : 24-27 2019 is January 31

see <http://aeb.fr/evolutionary-biology-meeting-2/> <  
<http://aeb.fr/evolutionary-biology-meeting-2/>>

the programs of the 22 previous meetings are available  
< <http://aeb.fr/evolutionary-biology-meeting-2/> >

see also the tweet address : EvolBiolMeetingMarseilles  
< <https://twitter.com/pontarotti> >

best regards Pierre Pierre Pontarotti DR CNRS Evolutionary Biology team. 1 Aix Marseille Univ, IRD, APHM, Microbe , Evolution, PHYlogénie, Infection IHU Méditerranée Infection, Marseille France 2 CNRS tel 33 (0) 4 13 7 32425 <https://sites.google.com/view/-pontarotti/> < <https://twitter.com/pontarotti> >

PONTAROTTI Pierre <[pierre.pontarotti@univ-amu.fr](mailto:pierre.pontarotti@univ-amu.fr)>

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## Miami EvolDevoBiol Jul31-Aug4

The 3rd Biennial Pan-American Society for Evolutionary Developmental Biology will take place July 31-Aug 4, 2019 in Miami, Florida, USA. When they become available, additional details will be posted at: <http://www.evodevopanam.org> Jeffrey Marcus <[Jeffrey.Marcus@umanitoba.ca](mailto:Jeffrey.Marcus@umanitoba.ca)>

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## NHM London YoungSystematists Nov23

Reminder: Abstract submission deadline coming soon!  
Friday 26 Oct 2018.

20th YOUNG SYSTEMATISTS' FORUM

#2018YSF

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

Venue: Flett Lecture Theatre,

Natural History Museum, London, UK

<http://systass.org/young-systematists-forum/> The annual Young Systematists' Forum represents an exciting setting for Masters, PhD and young postdoctoral researchers to present their data, often for the first time, to a scientific audience interested in taxonomy, systematics and phylogenetics. This well-established event

provides an important opportunity for budding systematists to discuss their research in front of their peers within a supportive environment. Supervisors and other established systematists are also encouraged to attend.

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

Registration is FREE.

Send applications by e-mail to [YSF.SystematicsAssociation@gmail.com](mailto:YSF.SystematicsAssociation@gmail.com), supplying your name, contact address and stating whether or not you wish to give an oral or poster presentation. Please also tell us your academic stage - e.g., Masters, PhD or postdoc. Space will be allocated subject to availability and for a balanced programme of animal, plant, algal, microbial, molecular and other research. Non-presenting attendees are also very welcome - please register as above.

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

Abstracts must be submitted by e-mail in English and in Word format no later than Friday 26 October 2018. The body text should not exceed 150 words in length. Title, authors, and their professional affiliations/addresses should be included with the abstracts. If the presentation is co-authored, the actual speaker (oral) or presenter (poster) must be clearly indicated in BOLD text. The file should be in editable format (.doc or .odt, not pdf) and titled Surname\_First-name\_YSF2018.doc, for example Doe.Jane\_YSF2018.doc.

If you have presented a talk at the YSF before, we ask that you submit only for a poster presentation, as speaker slots are limited and we want to give as many people a chance as possible. Similarly, if you are presenting at both the YSF and MF, we ask that you not apply for speaking slots in both (or let us know so we can assess).

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

Karen Siu Ting, M.Sc., Ph.D.

IRC ELEVATE postdoctoral fellow

Bioinformatics and Molecular Evolution Lab School

of Biotechnology - Dublin City University, Glasnevin, Dublin9, Ireland.

Ecological and Evolutionary Genomics Lab IBERS - Aberystwyth University Carwyn James Bldg, Penglais Campus, Aberystwyth, SY23 3FD, UK

Karen Siu Ting <[agalychnica@gmail.com](mailto:agalychnica@gmail.com)>

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## Providence RI Evolution2019 CallForSymposia Jun21-25

The American Society of Naturalists

Proposals for a Symposium to be held at the 2019 SSE/ASN/SSB Meeting in Providence, RI  
Due November 1st, 2018

The American Society of Naturalists invites proposals for a special symposium at the 2019 annual joint meeting of the Society for the Study of Evolution, the American Society of Naturalists, and the Society of Systematic Biologists, to be held June 21-25, 2019, in Providence, RI.

Proposed symposium topics should support the Societys goal to advance the conceptual unification of the biological sciences and further knowledge in evolution, ecology, behavior, and organismal biology. Proposals should be synthetic and interdisciplinary, and address important emerging issues in evolution, ecology, or behavior. A budget of \$8,000 for travel, registration, and accommodation is provided to help defray expenses.

Proposals should include (1) a title; (2) a description of the symposium topic (one page); (3) a list of six speakers, including institutional affiliations, who have agreed to participate in the symposium; (4) a justification for the symposium explaining why the topic and speakers are appropriate for a Society-sponsored symposium (up to one page).

Please submit proposals by midnight Eastern Standard Time on November 1, 2018, by email ([kmkay@ucsc.edu](mailto:kmkay@ucsc.edu)) as a single pdf attachment, under subject heading: ASN Symposium Proposal: Evolution 2019. Proposals that include women, young investigators, and individuals from underrepresented groups are especially encouraged.

The Societys selection committee will evaluate proposals based on the significance and timeliness of the topic, and on it differing substantively from recent symposia sponsored by the Society. All applicants will be notified

of the decision before the end of December.

Kathleen M. Kay

ASN Symposium Committee Chair Department of Ecology and Evolutionary Biology University of California, Santa Cruz

kmkay@ucsc.edu

Kathleen Kay Associate Professor Ecology and Evolutionary Biology EMS A308 UC Santa Cruz Santa Cruz, CA 95064 831-459-3446 <http://kay.eeb.ucsc.edu/>  
Kathleen Kay <kmkay@ucsc.edu>

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### Toulouse EcologyBehaviour May19-24

Save the date for the 14 th Ecology & Behaviour meeting in Toulouse, southern France, 19-24 May 2019

The association °Rencontres Ecology & Behaviour± (AREB), founded in 2005 by a group of students, organizes each year an international conference on evolutionary biology, ecology, and animal behaviour . We planned to invite two speakers for each symposium. Fantastic researchers have already confirmed their presence:

\* Intraspecific interactions: Charlotta Kvarnemo (Göteborg University) and Elise Huchard (ISEM, Montpellier)  
\* Non-genetic heredity: Lucy Aplin (Max Planck Institute, Radolfzell) and Etienne Danchin (EDB, Toulouse)  
\* Molecular Evolution: Knud Jönsson (National History Museum of Denmark, Copenhagen) and Ludovic Orlando (AMIS, Toulouse) \* Cognition: Alice Auersperg (University of Veterinary Medicine, Vienna) and Audrey Dussutour (CRCA, Toulouse) \* Biodiversity facing global changes: Mike Bruford (Cardiff University) and Camille Parmesan (SETE, Moulis) \* Interspecific interactions: Camille Bonneaud (University of Exeter) \* Ecophysiology and ecotoxicology: Mathieu Giraudeau (MIVEGEC, Montpellier)

As usual, our association wants to limit registration fees for all, and offer accommodation and lunch to all students exhibiting their work during the conference.

Abstract submission and registration will open in December!

Please visit the E&B 2019 conference website for updates: <https://eb2019.sciencesconf.org/>. You can also follow Ecology & Behaviour 2019 on facebook (@EcologyBehaviour2019) and twitter (@EcoBehav2019). Do

not hesitate to share this email with anyone you believe may be interested in attending.

We look forward to seeing you in the Ville Rose!

Maxime Pineaux, for the E&B organising committee (EDB lab, Toulouse)

pineaux <maxime.pineaux@univ-tlse3.fr>

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### UMiami EvolutionaryDemography Jan10-12

Announcing the Sixth Annual Meeting of the Evolutionary Demography Society to be held January 10-12 in Miami, FL at the University of Miami, Coral Gables.

The Evolutionary Demography Society, founded in 2013, is focused on conceptual integration across disciplines, most notably human demography and evolutionary biology (but also ecology, sociology, anthropology, epidemiology, public health). Both demography and evolutionary biology are quantitative studies of population processes. Human populations are currently undergoing profound changes in age-structure, age-patterns of mortality and life expectancy with significant societal and public health consequences.

We are dedicated to hosting a mix of early/late career participants and to providing novel organizational techniques to promote scientific interactions at our conferences across a breadth of fields. The meetings alternate between Europe and North America. Our first annual meeting, in 2013 at the University of Southern Denmark in Odense, Denmark, hosted by Jim Vaupel, attracted more than one hundred participants and subsequent meetings have been of similar size. They were held at Stanford University, Stanford, CA; Lunteren, the Netherlands; the University of Virginia, Charlottesville; and the Domaine Saint Joseph at Sainte-Foy Les Lyon, Lyon, France. Our goal at the meetings is to maximize participation and interactions among researchers.

We do not have concurrent sessions, we have one session with short presentations: Keynote Speakers give 20 min talks (with 5 additional min for questions) and lightning speakers give 5 min “lightning” talks (with 3 min for questions). Posters may be submitted in conjunction with talks or on their own. We have long coffee breaks and ample time for informal interactions. Usually the afternoon of the last day is devoted to Workshops.

You are invited to: (a) pre-register on our meeting in-



formation website, (b) book your hotel through links on our meeting information website, (c) register officially on our fee payment website. Due to payment security issues, we are not permitted to have links between the information and fee payment websites. We are permitted to include both links in an email and provide them here.

MEETING INFORMATION AND PROGRAM WEBSITE < <https://evodemovi.weebly.com/> > : (1) PRE-REGISTER NOW (help us plan and communicate with you): < <https://evodemovi.weebly.com/pre-registration.html> >; (2) BOOK HOTELS NOW (we are competing with the Regatta) TO GET SPECIAL RATES: < <https://evodemovi.weebly.com/lodging.html> >.

REGISTER NOW: MEETING REGISTRATION FEE PAYMENT WEBSITE - (secure payment site not linked to meeting information site): < <http://evodemovi.miami.edu/> > : (1) Registration payment accepted (credit cards only); (2) Registration fee covers coffee breaks, lunches, banquet, transportation between hotel area and meeting venue, and meeting packet; (3a) Now-October 31, 2018: Student - \$35; PostDoc- \$85; Faculty/Senior Researcher - \$175; (3b) After October 31, 2018: Student - \$50; PostDoc - \$105; Faculty/Senior Researcher - \$225.

FREE REGISTRATION for caregivers/dependents: Please follow these two steps: (1) Pre-register < <https://evodemovi.weebly.com/pre-registration.html> >; (2) Send email (subject: EvoDemo6 Guest) to: carolhorvitz@miami.edu

TRAVEL SUPPPORT: Limited support will be available for portions of airfare, hotel, potentially on-site childcare. Students and early career participants who apply early will be prioritized for support. Please be specific about your airfare and child-care needs [the age of the child, the proportion of the \$500 per child fee (the estimate from the on-site child care company ACCENT for 2.5 days) that you can pay] and follow these three steps: (1) Pre-register < <https://evodemovi.weebly.com/pre-registration.html>>, (2) Register to pay for your registration <<http://evodemovi.miami.edu/>>; (3) Send email (subject: EvoDemo6 Travel) to: carolhorvitz@miami.edu

FROM: Carol Horvitz Nutt, President of the Evolutionary Demography Society, Professor, Department of Biology, University of Miami, Coral Gables, FL 33124, email: carolhorvitz@miami.edu

dar2x@virginia.edu

## UZurich EvolBiology Feb7-8

BIOLOGY 19 February 7-8, 2019 University of Zurich, Irchel campus, Switzerland

We are delighted to announce that the next yearly meeting of the Swiss societies of organismal biologists (Swiss Botanical, Systematics, and Zoological Societies) will happen at the University of Zurich, Irchel campus, from 7th to 8th February 2019.

Registration at <https://www.biology19.ch> will open soon.

Biology19 is the largest conference of organismal biology in Switzerland, covering a wide range of topics in evolutionary biology, systematics, and ecology. The main goal is to stimulate exchange between students, researchers and professors across scientific institutions, research groups and disciplines.

The two-day conference will include four plenaries by invited speakers, many oral presentations by early-career scientists and poster sessions. Thursday evening, the traditional Darwin Dinner in honor of Darwin's birthday will feature Barbara König (University of Zurich) as our invited speaker, followed by the now famous Darwin Party.

Invited speakers:

MEGHAN DUFFY University of Michigan, USA

VIRPI LUMMAA University of Turku, Finland

WALTER SALZBURGER University of Basel, Switzerland

TANJA SLOTTE Stockholm University, Sweden

BARBARA KOENIG -Darwin Speaker- University of Zurich, Switzerland

Organizing committee:

Florian Altermatt Wolf Blanckenhorn Frederic Guillaume Anna Lindholm Stefan Luepold Arpat Ozgul Peter Szoevenyi

<frederic.guillaume@ieu.uzh.ch>

Frederic Guillaume <frederic.guillaume@ieu.uzh.ch>

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## GradStudentPositions

AMNH NewYork ComparativeBiology .....	11	UBern GrasslandBiodiversity .....	37
AuburnU BiologyEducationResearch .....	11	UCalgary ExptlMicrobialEvolution .....	37
AucklandU WhaleGenomeScan .....	12	UCalifornia Berkeley CelegansEvolution .....	38
BarllanU SexualNetworks .....	13	UCalifornia Davis HumGenomicsAfrica .....	38
BrighamYoungU PlantEvoDevo .....	13	UCalifornia LA MicrobiomePopGenetics .....	147
FloridaIntlU MarineEvolutionaryBiology .....	14	UCalifornia SantaBarbara PlantEvolutionaryEcol .	39
GeorgeMasonU Virginia ReptileVariation .....	14	UCentralFlorida AvianGenomicsConservation .....	40
GeorgetownU DolphinSocialEvolution .....	15	UCollege London HumanNutrientVariation .....	40
GeorgeWashingtonU MicrobialDiversity .....	15	UColorado Denver EcolEvolution .....	41
IdahoStateU TroutGenomics .....	16	UEdinburgh HostParasiteInteractions .....	42
IndianaStateU EvoDevo CichlidFish .....	17	UEdinburgh PopulationGenomics .....	43
LaurentianU CalgaryZoo FrogConservation .....	17	UFlorida SexualSelection .....	43
LaurentianU EvoBiology .....	18	UFribourg InversionAdaptationGenomics .....	44
LMU Munich ComputationalPhylogenetics .....	131	UGeneva AncientHumanDNA .....	45
LMU Munich ComputPhylogenetics .....	19	UGeorgia BioinformaticsFellowship .....	45
LMU Munich SexualSelection .....	20	UGuelph PlantEvolution .....	46
MaxPlanckInst Tuebingen NematodeEvolBiol .....	21	UIllinois EvolutionaryBiology .....	46
MiamiU PlantEvoDevo .....	21	UKansas DrosophilaGenetics .....	47
MPIO Seewiesen EvolutionCognition .....	22	UKonstanz PlanktonPhylogeneticDiversity .....	48
NorthwesternU CBG PlantConservation .....	22	ULausanne 6 QuantitativeBiology .....	49
Norwich UK AlternativeSplicingEvolution .....	23	ULiverpool HostParasiteInteractions .....	49
OhioStateU EvolutionOfMosquitoBloodfeeding .....	23	UMaine UNewHampshire 5 EvolutionaryGenomics	50
PortlandStateU NematodeMitonuclearEvolution .....	24	UMassDartmouth SpeciationGenomics .....	51
Portugal PlantDiversity .....	25	UNEuchatel Switzerland MicrobialInteractions .....	51
QueensC CUNY EvolutionGeneExpression .....	26	Univ Vermont EvolGenomics .....	52
QueensU Belfast EvolutionGutMicrobiomes .....	27	UNotreDame EcologyEvolutionEnvironment .....	53
StAndrews SocialEvolutionTheory .....	28	UOulu InsectMolSystematics .....	53
StockholmU PlantSystematics .....	28	URegensburg PlantSystematics .....	54
Taiwan EvolutionaryEcology .....	29	UTokyo EvolutionaryDemography .....	54
TexasAMU EvolutionaryBiol .....	30	UUtah EvolutionHostParasite .....	55
TexasAMU EvolutionaryGenomics .....	31	UVermont EpigeneticsThermalTolerance .....	56
TexasAMU PlantSystematicsBiogeography .....	31	UVirginia EcologyEvolutionBehavior .....	56
TexasTechU EvolutionaryGenomicsBirdsAnts .....	32	UWuerzburg ClimateAdaptation .....	57
Tours France InsectInteractionNetworks .....	32	UZH Switzerland PlantEvolutionaryGenetics .....	58
TrentU InvasiveSpeciesEvolution .....	33	VetMedUVienna Austria EvolutionaryAnthropology	58
TrinityC Dublin MolecularEvolution .....	34	Volcani Israel ProtozoaBacteriaSymbiosis .....	59
TuftsU GenomicsSpeciationAdaptation .....	34	WashingtonU PhylogeneticModels .....	59
TulaneU EvolutionaryBiology .....	35	Williamsburg VA PlantEvolutionDevelopment .....	60
UAlabama EvolutionaryIntegrativePhysiology .....	36		
UArkansas NeuroEvoDevo .....	36		

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## AMNH New York Comparative Biology

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

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

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

We also offer Graduate Fellowships for students interested in earning a Ph.D. at one of our partner institutions (Columbia University, CUNY, NYU, Stony Brook and Cornell University), when they are advised by an AMNH curator.

The AMNH Graduate Student Fellowship Program is an educational partnership with selected universities, dedicated to the training of Ph.D. candidates in those scientific disciplines practiced at the Museum. Our current collaborations are with Columbia University,

City University of New York (CUNY), Cornell University, Stony Brook University, and New York University (NYU). The host university in which the student enrolls exercises educational jurisdiction over the students and formally awards the degree. In these partnership programs, at least one Museum curator must serve as a graduate advisor, co-major professor or major professor, and adjunct university faculty member. Each student benefits by having the staff and facilities of both the university and the Museum to support his/her training and research. To be eligible for the AMNH Graduate Fellowship, students must apply to both the host University's Ph.D. program and to the AMNH Graduate Student Fellowships Program. Students already matriculated in a Ph.D. program are not eligible to apply; only new, first-time Ph.D. applicants will be considered.

**SUMMARY OF APPLICATION REQUIREMENTS FOR FALL 2019 APPLICANTS** - Bachelor of Arts or Bachelor of Science or equivalent degree, from an accredited institution - Official transcripts from all undergraduate/graduate institutions attended - GRE (general) results (taken within the past five years - Institution Code 2471 or 1760) - Three letters of support - Statement of Academic Purpose (Essay 1: past research experience [length of up to 500 words] and Essay 2: proposed research interests [length of up to 500 words]) - Interview (Final candidates will be interviewed) - AMNH Faculty sponsor - Application fee of \$50 (Comp Bio Only) - Proficiency in English (TOEFL [100 or higher] or IELTS scores [total 7.0 or higher] are required for non-native English speakers, taken within the past 2 years)

Deadline: December 15, 2018

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

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## AuburnU Biology Education Research

The Biology Education Research lab at Auburn University is looking for graduate students with an interest in Biology Education Research (BER) and STEM equity to begin in Fall 2019.

The Ballen lab conducts investigations into the causes and consequences of gaps in science literacy, and how educators can design their courses to minimize barriers to success. By developing an integrated experimental and theoretical research program we explore how

classroom and social influences shape student learning, personal and professional development, and educational and career trajectories.

Here is our website: <https://balle027.wixsite.com/-cjballen> Here are some examples of broad questions we are addressing in the lab: What geographic, cultural, or institutional barriers predict patterns of attrition among historically underserved students in STEM at the undergraduate level? What types of scalable teaching strategies can instructors employ to reduce gaps in performance and participation? How do research experiences impact developing scientists' personal and professional development and career trajectories? How can we use measures of physiological reactivity to study engagement in an undergraduate STEM classroom setting?

Auburn supports a large community in our Department of Biological Sciences (<http://www.auburn.edu/cosam/departments/biology/index.htm>). Students can apply at the M.Sc. and Ph.D. level. While a background and course work in statistics is preferred, it is not required. Applicants should have a strong biology and analytical background, as demonstrated through transcripts, recommendation letters, or publication record.

Several of the DBS faculty are interested in a co-mentoring model where part of the dissertation would be focused on biology education research and part would be focused on a biology laboratory or field research question. If you are interested in this approach, please contact me and let me know which additional mentors are of interest to you.

Auburn is a fantastic, affordable college town, and DBS is a vibrant and collaborative setting for discipline-based education research. We have great resources here to study education, offering a wide range of opportunities for expanding your skill set.

Application for admission to the DBS graduate program can be found here: <http://www.auburn.edu/cosam/departments/biology/grad/index.htm>. Materials include a CV, personal statement, official transcripts, three letters of recommendation and official GRE score. If you are interested in joining the lab as a graduate student, send me an email at [mjb0100@auburn.edu](mailto:mjb0100@auburn.edu) for more information!

– Cissy Ballen, PhD Assistant Professor Dept. of Biological Sciences College of Sciences and Mathematics Auburn University

350 S College St

Auburn, AL 36849 \*P \*607 279 2625 | \*E \*mjb0100@auburn.edu | Website < [https://-](https://-balle027.wixsite.com/cjballen)

[balle027.wixsite.com/cjballen](https://balle027.wixsite.com/cjballen) >

Cissy Ballen <[mjb0100@auburn.edu](mailto:mjb0100@auburn.edu)>

## AucklandU WhaleGenomeScan

We are looking for a MSc students for the following position:

Functional differences in southern right whale genomes linked to population structure and foraging traditions

Principal supervisor: Dr Emma Carroll [e.carroll@auckland.ac.nz](mailto:e.carroll@auckland.ac.nz), University of Auckland  
Co-supervisors: Assoc. Prof. Rochelle Constantine, Prof. Oscar Gaggiotti (University of St Andrews), Dr Alana Alexander (University of Otago)

Funding: This MSc is fully funded for one year of research, covering both domestic (New Zealand) student fees and a stipend of \$NZ17,000 for one year.

Description: Southern right whales are a large baleen whale species that have undergone a dramatic population bottleneck due to historical whaling and are now recovering in parts of their historical range. The species shows typical baleen whale migratory patterns, moving between winter breeding and socialising grounds and summer feeding grounds. There is genetic and stable isotope evidence that this migratory fidelity shapes population structure across the species distribution. In particular, this behavioural mechanism, in combination with historical environmental processes, is hypothesised to have led to significant genetic differentiation between recovering wintering grounds. Here we seek a MSc student to undertake the first survey of genomic data to look for functional genetic differences between southern right whale wintering grounds and between foraging ground traditions. The research project will be based on the analysis of already-generated, ddRAD and whole genome data and will use genome scan methods to detect regions of the genome that show differences. There is no fieldwork component to this project.

Aims: What are the functional differences at the genome level between southern right whales (1) in different populations and (2) that forage on different prey species or regions?

Candidate Requirements: We seek an enthusiastic, motivated candidate with a genetic/genomic, bioinformatics or molecular ecology background and knowledge of population genetic theory. The ideal candidate would also

have experience with coding, or otherwise being willing to learn, for example, python, R, and/or bash scripting.

We especially encourage students from under-represented groups in STEM (e.g. Māori, Pasifika, lower socio-economic status students, first generation university students, women).

Entry requirements are either BSC(Hons) with a GPA of at least 4 or a PGDipSci in Biological Sciences (for specific PGDipSci requirements please email).

Further information: Prospective applicants are encouraged to contact Emma Carroll [e.carroll@auckland.ac.nz](mailto:e.carroll@auckland.ac.nz) to discuss the project. Starting date either 1 December 2018 or 1 March 2019.

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## Bar-IlanU SexualNetworks

We are looking for a PhD student for a project on sexual networks and alternative mating tactics in the rock hyrax. The student will be supervised by Drs. Amiyaal Ilany and Lee Koren.

The project involves extensive fieldwork 6 months a year in the Ein Gedi Nature Reserve, Israel.

The ideal applicant has a strong background in behavioral ecology, field experience handling wildlife, and data analysis skills.

For more information, please contact Dr. Amiyaal Ilany ([amiyaal@gmail.com](mailto:amiyaal@gmail.com))

Please include a CV and a cover letter with field experience and interests, as well as contact information of up to three academic references.

Application deadline: October 31, 2018.

– Dr. Amiyaal Ilany Senior Lecturer Faculty of Life Sciences < <http://life-sciences.biu.ac.il/en> > Bar-Ilan University < <http://www1.biu.ac.il/indexE.php> >

Consulting Editor, Journal of Comparative Psychology < <http://www.apa.org/pubs/journals/com/> >

Member, IUCN Afrotheria Specialist Group < <https://www.iucn.org/ssc-groups/mammals/afrotheria-specialist-group> >

Lab website: <https://ilany-lab.netlify.com/> Twitter: @amiyaal < <https://twitter.com/amiyaal> >

[amiyaal@gmail.com](mailto:amiyaal@gmail.com)

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## BrighamYoungU PlantEvoDevo

Graduate Position in Evolution of Plant Development  
Brigham Young University Fall 2019

A PhD graduate student position is available beginning Fall 2019 in the Whipple lab, Department of Biology, Brigham Young University. Research interests in the Whipple lab center on the genetic basis of morphological diversity in plants, employing both model and non-model systems (see [whipplelab.byu.edu](http://whipplelab.byu.edu)). Students will use molecular, morphological and genetic approaches to address basic questions in the evolution of plant development. Specific research projects include an analysis of gene networks that jointly regulate leaf growth and inflorescence architecture in maize (Poaceae), as well genetic mechanisms underlying a dramatic shift in floral and inflorescence morphology in *Gilia* (Polemoniaceae).

The successful applicant will be highly motivated with a strong interest in plant development, and demonstrated experience with basic molecular biology techniques (PCR, cloning, sequence analysis, etc.).

Funding for this position is guaranteed through a combination of Teaching Assistantships from the Department of Biology, and Research Assistantships from external NSF research funds and will cover tuition and benefits in addition to a competitive yearly stipend. Particularly qualified students are eligible for a university research fellowship.

BYU is located in Provo, UT, centrally situated in a state renowned for its spectacular outdoor recreational offerings. For the more urban-oriented, diverse cultural and social opportunities are easily accessible in both Provo and nearby Salt Lake City.

Interested applicants should send a CV, transcripts, GRE scores (if available) and a statement of research interests to Clinton Whipple ([whipple@byu.edu](mailto:whipple@byu.edu)). Applications will be screened starting immediately and continue until to Jan 1st 2019. International students with strong credentials are welcome and encouraged to apply.

All application materials and any questions should be directed to: Clinton Whipple Associate Professor Department of Biology Brigham Young University 4102 LSB Provo UT, 84602 USA Email: [whipple@byu.edu](mailto:whipple@byu.edu) Email correspondence is preferred

whipple@byu.edu whipple@byu.edu

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### FloridaIntIU MarineEvolutionaryBiology

The CRUSTOMICS lab at Florida International University in the Department of Biology and Marine Sciences Program is looking for highly motivated graduate students with an interest in evolutionary biology and marine invertebrates.

#### Research Interests

The Bracken-Grissom Lab is fundamentally interested in the evolution of marine invertebrates. Many projects have focused on the Decapod Tree of Life and use a phylogenetic framework to study various aspects of their diversification, ecology, biogeography, and conservation. More recent projects integrate taxonomic and genomic methods to study evolutionary processes and complex traits in extreme environments including the deep sea and aquatic caves. More information on our research can be found here: \*[www.brackengrissomlab.com](http://www.brackengrissomlab.com) Qualifications

Applicants should have a background in evolutionary biology and molecular methods. Experience with invertebrate zoology, phylogenetics, systematics, next generation sequencing methods and/or bioinformatics is a plus. Students would ideally have an M.S. or B.S. degree in Biology or related discipline. Student must be proficient in English (both spoken and written). Our work requires good organizational and computational skills and the ability to work collaboratively as part of a team. Occasional physically demanding fieldwork may also be required to support research.

#### Requirements

The Bracken-Grissom lab is looking for 1-2 PhD graduate student(s) to start in the Fall of 2019. If you are interested in applying for a graduate position in the lab please send [hbracken@fiu.edu](mailto:hbracken@fiu.edu) the following: 1) a CV and 2) a letter of interest describing your research interests, career goals and rationale for pursuing a graduate degree. Graduate students admitted to the program receive guaranteed funding from the Department for up to 4 years. Additional information on the lab's research, the biology department, and marine sciences program can be found here: [www.brackengrissomlab.com](http://www.brackengrissomlab.com) and <http://biology.fiu.edu/> and [www.fiu.edu/~marine](http://www.fiu.edu/~marine). More information on the application process and Graduate School

at FIU can be found here <http://gradschool.fiu.edu/>. Application deadline Jan 5th 2019.

#### Contact Information

Heather Bracken-Grissom, PhD

Assistant Professor

Dept. of Biological Sciences

Florida International University-Biscayne Bay Campus

3000 NE 151 Street, MSB-353

North Miami, Florida 33181, USA

305 919-4190 (Phone)

email: [hbracken@fiu.edu](mailto:hbracken@fiu.edu)

– Heather Bracken-Grissom, PhD Assistant Professor  
Dept. of Biological Sciences Florida International University-Biscayne Bay Campus 3000 NE 151 Street, MSB-353 North Miami, Florida 33181, USA 305 919-4190 (Phone) 305 919-4030 (Fax)

\*CRUSTOMICS: Crustacean Genomics and Systematics Lab\* < <http://heatherbracken.wix.com/-brackengrissomlab> > \* [heather.brackengrissom@fiu.edu](mailto:heather.brackengrissom@fiu.edu) <[Valerie.Hall@fiu.edu](mailto:Valerie.Hall@fiu.edu)> [www.fiu.edu/~marine](http://www.fiu.edu/~marine) Heather Bracken-Grissom <[heather.bracken@gmail.com](mailto:heather.bracken@gmail.com)>

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### GeorgeMasonU Virginia ReptileVariation

A doctoral student research position is available to start Fall 2019 in the lab of Dr. Ylenia Chiari at George Mason University in Fairfax, Virginia. We seek a highly motivated prospective graduate student with an interest in investigating the genetic and environmental determinants of color and color patterns in lizards. The Chiari Lab ([www.yleniachiarit.it](http://www.yleniachiarit.it)) uses integrative approaches from molecular biology to behavior to computational modeling to study the causes and consequences of morphological variation in reptiles.

Successful candidates will have at least basic knowledge of molecular lab techniques, some previous research experience, and a strong interest in evolutionary biology, genetics, and genomics. Some background or experience in handling and breeding reptiles in captivity is encouraged, but not required. Application from traditionally underrepresented groups is encouraged.

Deadline for admission to the PhD program is January 1st 2019. <https://catalog.gmu.edu/colleges-schools/>

[science/systems-biology/biosciences-phd/](#) Full support will be provided for the first two years through a research assistantship. Support is provided in the following years through a teaching assistantship. However, the successful candidate will be expected to apply for graduate fellowships during his/her PhD.

Prospective students should send a short description of their research interests and past research experience along with a resume or CV (including the names of three people who could serve as a reference on your behalf) to [yleniachiaris@southalabama.edu](mailto:yleniachiaris@southalabama.edu). Selection of candidates will begin on October 29, but applications will continue to be reviewed until the end of November 2018.

Ylenia Chiari, PhD

Dr. Ylenia Chiari Assistant Professor Department of Biology University of South Alabama LSCB 121 5871 USA Dr. N.

Mobile, AL 36688 USA Phone: (251) 460-6331 Fax: (251) 414 8220 Email [yleniachiaris@southalabama.edu](mailto:yleniachiaris@southalabama.edu) Lab Webpage <http://www.yleniachiaris.it> Ylenia Chiari <[yleniachiaris@southalabama.edu](mailto:yleniachiaris@southalabama.edu)>

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## GeorgetownU DolphinSocialEvolution

Professor Janet Mann < <https://gufaculty360.georgetown.edu/s/contact/-0033600014RY0bAAG/janet-mann> > (GU) and Dr. Celine Frère < <https://www.celinefrerelab.com/> > (USC) are seeking graduate student (PhD) applicants to Georgetown University to work on a study of maternal effects in wild bottlenose dolphins, funded by the National Science Foundation. Competitive applicants should have a strong quantitative and theoretical background in genetics and behavioral ecology. Refer to <https://biology.georgetown.edu/graduate/applicants> for details. Email Janet Mann [mannj2@georgetown.edu](mailto:mannj2@georgetown.edu) for additional information. Deadline is December 1.

General Project Description: While several studies link sociality to fitness in long-lived mammals, maternal influence on inter- and intra-individual variation in sociality (e.g. dynamic social patterns) and fitness outcomes is relatively unexplored. Recent computational advances allow this project to incorporate multi-level, dynamic variation to advance understanding of how sociality evolved, i.e., transmission pathways. This study system, a 35-year longitudinal study of wild bottlenose

dolphins, provides a unique opportunity to address these questions because of species characteristics, and the size, detail, and long-term nature of the dataset. This project will use: (1) novel quantitative genetics methodologies to unravel the importance of maternal effects on social behavior while accounting for both additive genetic variation and the mothers' social environment; (2) next-generation sequencing combined with demographic data to construct accurate pedigree information from high-density single nucleotide polymorphisms; (3) dynamic social network modeling (social association/interaction matrices) to account for changing social attributes of individuals rather than just static traits. As such, this study will be a comprehensive exploration of how maternal effects impact social traits over the lifespan and across more than one generation within an evolutionary framework. In addition, this is the first study to do so in wild long-lived mammal with extensive maternal social transmission, while accounting for additive genetic variation. The results will provide significant advances by extending our study of the genetic and non-genetic mechanisms of inheritance, which play critical roles in evolution and responses to environmental change.

Celine Frere PhD #SuperstarsofSTEM Senior Research Fellow Office: H1.51 Faculty of Science, Health, Education and Engineering University of the Sunshine Coast 90 Sippy Downs Drive Sippy Downs Queensland 4556 Australia mobile: 0423312893 work: 0754565415 [celinefrerelab.com](http://celinefrerelab.com)

USC, Locked Bag 4, Maroochydore DC, Queensland, 4558 Australia. CRICOS Provider No: 01595D Please consider the environment before printing this email.

Celine Frere <[cfrere@usc.edu.au](mailto:cfrere@usc.edu.au)>

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## GeorgeWashingtonU MicrobialDiversity

A doctoral student position is available in the lab of Dr. Jimmy Saw at the George Washington University (GWU) in Washington, DC. We are currently looking for a highly motivated student who are interested in microbial diversity and evolution to join the research group in Fall of 2019. The student will be able to develop independent research projects of interest in line with those of the lab. We are interested in microbial diversity and evolution in extreme habitats (such as hot springs and hydrothermal vents) but also habitats around that world that are least explored.

We will use 'omics (metagenomics, single-cell genomics, etc), cultivation, microscopy, and laboratory experiments to understand microbial diversity, ecology, and evolution. Focus will be mostly placed on bacterial and archaeal diversity and evolution in extreme habitats. Field trips to collect samples from places such as hot springs and other habitats of interest will be required. Students with background in microbiology, experience in culturing microbes (especially extremophiles) and microscopy, field experience, and/or knowledge of programming languages (such as R and Python) will be highly competitive for this position. To learn more about my past research, please visit this page: <https://scholar.google.com/citations?user=9Vx-JTgAAAAJ&hl=en> Students who are interested in joining the group should email Dr. Jimmy Saw (at jimmysaw@gmail.com) a copy of their recent CV, a brief description of research interests, experiences, and motivation for joining the research group prior to applying to the PhD program. Please include GPA and GRE scores in your CV. While the GPA and GRE scores are factors in the admission process, previous experience, motivation, and passion for research are highly valued. The application deadline for Fall 2019 admissions is December 1st, 2018. The Department of Biological Sciences at GWU provides highly competitive support for successful candidates to the PhD program.

GWU is located in the heart of Washington, DC with close proximity to museums, research institutions, and many other places of interest. To apply, please visit the GWU Department of Biological Sciences website ( <https://biology.columbian.gwu.edu/apply-now> ). You can also read more about the graduate program at: <https://biology.columbian.gwu.edu/graduate-faq> . Fellowships available at GWU can be found below:

<https://www2.gwu.edu/~fellows/ccas.html> <https://www2.gwu.edu/~fellows/fellowships.html> <https://www2.gwu.edu/~fellows/research.html> Jimmy Saw <jimmysaw@gmail.com>

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## IdahoStateU TroutGenomics

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

GRADUATE ASSISTANTSHIP (Ph.D. or M.S. in Biological Sciences) in the Department of Biological Sciences at Idaho State University. A position is available

for a Ph.D. or M.S. student to investigate the genomic and population genetic mechanisms underlying phenotypic diversity in populations of trout inhabiting different environments. The successful candidate will have the opportunity to work collaboratively with geneticists, ecologists, and modelers across different academic institutions and government agencies. The position will contribute to an interdisciplinary research program addressing the National Science Foundation's research priority of assessing the contribution of genetic and environmental factors to phenotypic expression.

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

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

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

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

Applications will be reviewed as they are received until January 30, 2019. Top candidates will be interviewed and asked to formally apply to Idaho State University. Final admission decisions are approved by the Biologi-



cal Sciences Graduate Curriculum Committee and the Graduate School.

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

Janet Loxterman <loxtjane@isu.edu>

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## IndianaStateU EvoDevo CichlidFish

Graduate student (PhD) positions in eco-evo-devo of African cichlid fishes

The Gante Lab (<https://www.indstate.edu/cas/-biology/people/dr-hugo-gante>) in the Department of Biology and The Center for Genomic Advocacy at Indiana State University has openings for highly motivated, talented and passionate graduate students. We use integrated genetic, genomic and computational approaches to study color pattern development and evolution, and the genomics of adaptation. We use freshwater fish as our main model systems, particularly African cichlids, to disentangle the molecular and developmental mechanisms underlying adaptation and speciation. Prospective research projects for incoming graduate students include:

- Color pattern development and evolution. Color patterns are important for mediating social communication, sexual selection and to escape predation. To understand how color patterns develop and evolve in the color pattern-rich African cichlids of the genus *Neolamprologus*, we are combining analyses of differential gene expression between phenotypes, comparative genomics across species and populations along a continuum of genetic and phenotypic divergence, with developmental analyses of pattern formation, including chromatophore cell-cell interactions. We are interested in examining the functions and regulation of candidate color pattern genes in great detail.
- Mechanisms mediating adaptation to extreme environments. Adaptation to new, often extreme environments offers an excellent opportunity to understand the molecular basis of evolutionary (adaptive) phenotypic changes. We are looking at how genomic differences between divergent populations and species translate to differences in phenotypes (e.g., life history, morphology, behavior). We are interested in examining the functions and regulation of genes involved in adaptation in further detail.

Financial support for graduate students is available through research assistantships, teaching assistantships, and fellowships.

Job Requirements:

The applicant should have a BA or BS degree, taken the GRE, and possess a strong undergraduate knowledge of genetics, bioinformatics, and/or developmental biology with relevant lab experience. Possession of a Masters degree or previous research experience, particularly with zebrafish or stickleback, is considered a plus.

How to Apply:

Contact Dr. Hugo Gante directly at [Hugo.Gante@indstate.edu](mailto:Hugo.Gante@indstate.edu) with a statement of interest, a CV, unofficial transcripts, GRE scores, and names and contact information for three references.

Hugo F. Gante, PhD

Assistant Professor

Department of Biology

TCGA V The Center for Genomic Advocacy

Indiana State University

Terre Haute, IN 47809, USA

<http://hugofgante.com>

Hugo

Gante

<[Hugo.Gante@indstate.edu](mailto:Hugo.Gante@indstate.edu)>

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## LaurentianU CalgaryZoo FrogConservation

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

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

captivity on the microbiome of the Leopard frog?

In this context, the student will work by combining fieldwork, population genetics analyses and experiments depending on his/her interests. Good aptitude for fieldwork, molecular ecology skills and some herpetological knowledge are expected as well as good communication skills.

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

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

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

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

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

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

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

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

dlesbarreres@laurentian.ca

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## LaurentianU EvolBiology

Ph.D. Opportunity- Anatomical and Behavioral Responses of Bewick's Swan Populations to Climate Change Impacts in Far-Eastern Siberia: Micro-Evolutionary and Environmental Influences>Contact>Dr. Frank F. Mallory, Department of Biology, Laurentian University, Sudbury, Ontario P3E 2C6;E-mail: fmallory@laurentian.ca

M.Sc. Opportunity-Heavy Metal Contamination in Aquatic Furbearers of the Porcupine River System-Contact Person>Dr. Frank F. Mallory, Department

of Biology, Laurentian University, Sudbury, Ontario P3E 2C6; E-mail: fmallory@laurentian.ca

Frank Mallory <fmallory@laurentian.ca>

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## LMU Munich ComputationalPhylogenetics

PhD Position: Developing new methods and models for robust gene-tree estimation

I invite applications for a doctoral position to develop new methods and models for robust gene-tree estimation in my research group at the GeoBio-Center of the Ludwig-Maximilians-Universität (LMU), München. The position is funded by the DFG Emmy Noether program, and is available for 3 years (according to German funding regulations). The position is full-time and research only (no classes and teaching required). The position should start on 1 January 2018 or as soon as possible thereafter.

My group is broadly working on theory and computational methods for Bayesian inference of phylogeny (<http://www.evol.bio.lmu.de/research/hoehma>). The research directions include phylogeny inference, divergence time estimation, diversification rate estimation and model testing. All of our methods are implemented in the open-source program RevBayes (<http://www.RevBayes.com>) which is the successor software of the popular program MrBayes. The successful applicant will be part of our vibrant RevBayes group and will contribute to further development of the program. There will be opportunities for the successful applicant to work with and visit the research groups of my collaborators in Europe and the USA. Furthermore, I expect the candidate to become actively involved in our RevBayes workshops and hackathons.

I have recently been awarded an Emmy Noether grant from the DFG (German Science Foundation) which will fund at least 3 positions over the next 5 years. This advertisement is for one of these positions and the applicant will start in a young, dynamic and rapidly growing group. My group will be moving to the GeoBio-Center of the LMU Munich, one of Germany's and Europe's top Universities (#32 world-wide; #8 in Europe; #1 in Germany; <https://www.timeshighereducation.com/world-university-rankings/lmu-munich>). The GeoBio-Center is located at the Königsplatz which is in walking distance to the historic city center (Marienplatz) and

English Garden (city park with 3.75 km<sup>2</sup> area). The GeoBio-Center is highly interdisciplinary and consists of researchers from different departments including paleontology, molecular and evolutionary biology, zoology and botany.

The main research topic for the PhD project is robust estimation of gene trees. Today we have several databases with whole genomes which we would like to use to build phylogenetic trees. However, different genes have different evolutionary histories. To be able to understand why gene trees are discordant, we have to be able to estimate gene trees correctly in the first place. Thus, we need to develop realistic models of the substitution process for each gene. For example, we need to develop and test time-reversible and non-reversible substitution processes, lineage-heterogeneous substitution processes, etc. The foundation of these models is already implemented in RevBayes. The PhD student will apply and explore different substitution models and, depending on the results, develop the next steps for robust gene tree inference.

Applicants should have a Master's degree, completed or completion imminent, in evolutionary biology, computer science, mathematics, statistics, or a related field. Some knowledge and experience in programming (C++, Java, Python or R), phylogenetic inference as well as Bayesian statistics is beneficial. Training in these skills will be provided depending on need. The thesis will be written in English. No knowledge of German is required but some basic knowledge will be helpful outside of work. Enthusiasm, determination and the capacity to work independently are essential. Own ideas complementing the current research direction are highly appreciated.

The position will be compensated according to the standard DFG salary scheme (TVL-E13). The salary is very competitive and includes benefits such as health care, pension, unemployment insurance and child support (if applicable).

Further information can be found at (<http://www.evol.bio.lmu.de/research/hoehna>), and questions should be directed to Sebastian Höhna ([phyloinformatics@gmail.com](mailto:phyloinformatics@gmail.com)). Applications, including a current CV, letter of motivation (1 page) and names and contact details of two referees should be sent to Sebastian Höhna before the deadline of 31 October 2018.

Sebastian Hoehna <[phyloinformatics@gmail.com](mailto:phyloinformatics@gmail.com)>

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## LMU Munich ComputPhylogenetics

PhD Position: Developing new methods and models for robust gene-tree estimation

### Final week for applications ###

I invite applications for a doctoral position to develop new computational methods and models for robust gene-tree estimation in my research group at the GeoBio-Center of the Ludwig-Maximilians-Universität (LMU), München. The position is funded by the DFG Emmy Noether program, and is available for 3 years (according to German funding regulations). The position is full-time and research only (no classes and teaching required). The position should start on 1 January 2019 or as soon as possible thereafter.

My group is broadly working on theory and computational methods for Bayesian inference of phylogeny (<http://www.evol.bio.lmu.de/research/hoehna>). The research directions include phylogeny inference, divergence time estimation, diversification rate estimation and model testing. All of our methods are implemented in the open-source program RevBayes (<http://www.RevBayes.com>) which is the successor software of the popular program MrBayes. The successful applicant will be part of our vibrant RevBayes group and will contribute to further development of the program. There will be opportunities for the successful applicant to work with and visit the research groups of my collaborators in Europe and the USA. Furthermore, I expect the candidate to become actively involved in our RevBayes workshops and hackathons.

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The main research topic for the PhD project is robust estimation of gene trees. Today we have several databases with whole genomes which we would like to use to build phylogenetic trees. However, different genes have different evolutionary histories. To be able to understand why gene trees are discordant, we have to be able to estimate gene trees correctly in the first place. Thus, we need to develop realistic models of the substitution process for each gene. For example, we need to develop and test time-reversible and non-reversible substitution processes, lineage-heterogeneous substitution processes, etc. The foundation of these models is already implemented in RevBayes. The PhD student will apply and explore different substitution models and, depending on the results, develop the next steps for robust gene tree inference.

Applicants should have a Master's degree, completed or completion imminent, in evolutionary biology, computer science, mathematics, statistics, or a related field. Some knowledge and experience in programming (C++, Java, Python or R), phylogenetic inference as well as Bayesian statistics is beneficial. Training in these skills will be provided depending on need. The thesis will be written in English. No knowledge of German is required but some basic knowledge will be helpful outside of work. Enthusiasm, determination and the capacity to work independently are essential. Own ideas complementing the current research direction are highly appreciated.

The position will be compensated according to the standard DFG salary scheme (TVL-E13). Note that the position is in Bioinformatics and therefore pays the full 100% salary (compared with the reduced salary in other fields in Germany). The salary is very competitive and includes benefits such as health care, pension, unemployment insurance and child support (if applicable).

Further information can be found at (<http://www.evol.bio.lmu.de/research/hoehna>), and questions should be directed to Sebastian Höhna ([phyloomatics@gmail.com](mailto:phyloomatics@gmail.com)). Applications, including a current CV, letter of motivation (1 page) and names and contact details of two referees should be sent to Sebastian Höhna before the deadline of 31 October 2018. The review process will begin on November 1st and applications will be considered until the position is filled.

Sebastian Hoehna <[phyloomatics@gmail.com](mailto:phyloomatics@gmail.com)>

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## LMU Munich SexualSelection

### PhD Position in Evolutionary Behavioral Ecology

At the Behavioural Ecology group of the Ludwig Maximilians University of Munich we are seeking a PhD student who is eager to study reproductive trait evolution in field crickets. The project specifically aims at understanding the role of pre- and post-mating sexual selection in shaping male traits, from ejaculates to behavior. The position is funded by the Deutsche Forschungsgemeinschaft (DFG) and will run for 3 years, starting from January 2019.

**Description:** The project will make use of the field cricket *Gryllus bimaculatus* as an insect model system to understand how sexual selection shapes complex male phenotypes by quantifying the relative contribution of pre- and post-mating selection to male reproductive fitness and key reproductive traits (behaviour, morphology, and ejaculates) across changing social environments. The use of experimental evolution lines will be core to the study, involving multiple approaches and covering a diverse array of techniques such as behavior assays, sperm trait analyses, and molecular paternity assignment. The work will be entirely lab based with yearly field trips to collect animals.

**Requirements:** The candidate should have a Masters degree. Students with various skill sets are encouraged to apply but a background in behavioral ecology and evolutionary biology is essential. Experience with molecular tools is desirable, as well as experimental work with arthropods. We are seeking for a student willing to work independently and keen to join a highly international work group.

**Application (in English):** The candidates should provide - CV - Motivation letter with brief description of experiences relevant to the research project - Relevant study certificates and record of exams - 2 letters of recommendation (preferably from Bsc and Msc supervisors)

**Deadline:** Please merge all files in a single pdf and submit to [cristina.tuni@bio.lmu.de](mailto:cristina.tuni@bio.lmu.de) latest by November 15th 2018.

– Dr. Cristina Tuni Research Associate

Behavioural Ecology LMU München/Department Biologie II Großhaderner Str. 2 82152 Planegg-Martinsried  
Room C 02.054 Email: [cristina.tuni@bio.lmu.de](mailto:cristina.tuni@bio.lmu.de)

[http://www.behavioural-ecology.bio.lmu.de/-people/assistant\\_prof/tuni/](http://www.behavioural-ecology.bio.lmu.de/-people/assistant_prof/tuni/) Cristina  
<cristina.tuni@biologie.uni-muenchen.de>

Tuni

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## MaxPlanckInst Tuebingen NematodeEvolBiol

The Max-Planck Institute for Developmental Biology, Tuebingen, Germany has an open PhD position in the Evolutionary Biology Department

Our team: We are a highly interdisciplinary team working on the interface between molecular biology, developmental biology, population genetics, ecology, and evolutionary biology. Our model system is a nematode related to *Caenorhabditis elegans* which is one of the most important model organism in biomedical research. Our lab has established a second nematode species, *Pristionchus pacificus*, as model for comparative studies with *C. elegans*. Our current focus is on studying how environmental cues influence developmental decisions and how these processes drive speciation and genome evolution. To this end, we are investigating chemical signaling between nematodes, interactions with bacteria and we try to get mechanistical insights into the genetic basis of these and various other traits. Our Evolutionary Genomics and Bioinformatics group integrates analysis of next generation sequencing data and statistical analysis to find associations between genotype and phenotype and provides comparative and functional genomic analyses for further characterizing regulatory networks and selective forces acting on the underlying genomic loci.

Your profile: We are looking for a highly motivated student with a Masters or equivalent degree from any biomedical field. The applicant must be willing to acquire basic computational skills (familiarity with a command line interface and good knowledge in one scripting language) and spend at least 50% of the time in the dry lab. Furthermore, excellent communication skills are essential to successfully interact in this highly interdisciplinary environment.

Our offer: We have one open PhD position (initial contract for three years with salary according to the German public service pay scale) in the Evolutionary Genomics and Bioinformatics Group. This includes access to the working environment and resources of one of the world's most successful organizations in basic research.

To apply: Please send coverletter, CV, and name and contact details of two references to chris-

tian.roedelsperger@tuebingen.mpg.de

Further information: <http://www.sommerlab.org/>  
<http://www.eb.tuebingen.mpg.de/> Christian  
Roedelsperger Evolutionary Genomics and Bioinformatics Group Department for Evolutionary Biology Max-Planck Institute for Developmental Biology Max-Planck-Ring 9, 72076 Tuebingen, Germany Tel.: +49 7071 601 440 Email: christian.roedelsperger@tuebingen.mpg.de <http://www.sommerlab.org/research/evolutionary-genomics-and-bioinformatics.html> Christian Rödelsperger  
<christian.roedelsperger@tuebingen.mpg.de>

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## MiamiU PlantEvoDevo

The Baker Lab (<https://rlbakerlab.com>) in the Biology Department at Miami University of Ohio is recruiting highly motivated students seeking M.S. or Ph.D. degrees (multiple positions available) to study eco/micro evolutionary developmental biology. Research in the Baker Lab includes work on locally adapted wildflowers and leveraging evo-devo approaches for sustainable agriculture.

Preferred candidates will have an enthusiasm for learning and interest in botany, evolution, ecology, genetics, and/or transcriptomics. The Baker Lab values diversity, inclusivity, and equity. Students from diverse backgrounds are encouraged to apply, as are students who participated in research as undergraduates. NSF Research Experiences for Undergrads (REU) or McNair Scholars are highly encouraged to apply.

Successful applicants will have tuition waived and at least one year of support as a research assistant. Teaching assistantships are guaranteed throughout graduate studies (2 years total for M.S. or 4-6 years total for Ph.D.) as well as summer support.

Interested applicants should contact Dr. Rob Baker at [robert.baker@miamioh.edu](mailto:robert.baker@miamioh.edu). Applicants will need to submit a personal statement, CV, 3 letters of recommendation, GRE scores, proof English proficiency (if applicable), and baccalaureate transcripts via <http://miamioh.edu/graduate-school/admission/>. Miami University is located in Oxford, Ohio. Oxford has been rated the nation's #1 college town while still offering an affordable cost of living. Oxford is approximately one hour from both Cincinnati and Dayton, and two hours from Columbus. Living in Oxford will give you access to a number of exciting opportunities such as weekly

farmer's markets, summer concerts, performing arts, sports, museums, lectures, and special events. Nearby Hueston Woods State Park offers 3,000 acres of outdoor recreation including hiking, fishing, canoeing, mountain biking, and fossil hunting.

-Rob

Robert L Baker Assistant Professor Department of Biology Miami University 700 E High St. Oxford, OH 45056

Miami EEBB & CMSB graduate program affiliate

Email: [robert.baker@miamioh.edu](mailto:robert.baker@miamioh.edu) URL: <https://rbakerlab.com> Rob Baker <[bakerr2@miamioh.edu](mailto:bakerr2@miamioh.edu)>

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## MPIO Seewiesen EvolutionCognition

Announcement

PARROT COGNITION (TENERIFE)

MASTER PROJECTS / VOLUNTEER RESEARCH ASSISTANTS

Comparative Cognition Research Group, Max-Planck Institute for Ornithology, Tenerife, Spain

The Max-Planck Comparative Cognition Research Group (CCRG) <https://www.orn.mpg.de/Comparative-Cognition-Research-Group-von-Bayern> invites applications of Masters students and volunteer research assistants. The CCRG forms part of the collaboration between the Max-Planck Institute for Ornithology, Seewiesen, Germany, and the Loro Parque Fundación (LPF), Tenerife, Spain. We are currently running various comparative research projects on social and physical cognition in parrots. Interested candidates are encouraged to contact us to enquire about the ongoing projects. Successful applicants can expect to gain a solid insight in the field of Animal Cognition/Experimental Psychology and gain experience in working with psittacids in a dynamic, international research environment. The research is carried out on captive parrots of the LPF, which holds the largest parrot collection and gene reserve in the world (ca. 350 subspecies) for conservation and research purposes.

Logistics:

Voluntary research assistant position /Master Project starts on 1<sup>st</sup> December 2018. The position requires a minimum of 4 months, but ideally 6 months, continuous

commitment at the research station in Tenerife, Spain. Free accommodation in a shared student apartment can be provided. Successful applicants will be responsible for their own transportation expenses to and from the research station (Puerto de la Cruz, Tenerife, Spain).

Important skills/qualifications:

Successful candidates will have: \* completed a degree in Biology or any related field \* a strong interest in comparative cognition \* high motivation and commitment to the project \* reliability, efficiency and an ability to work independently \* confidence to interact with animals \* previous research experience \* good verbal and written English skills \* initiative to develop the project \* good team work attitude and social skills (shared accommodation between 3 students)

To apply: Please send your CV and a cover letter reporting any relevant experience you have and motivation to participate in the project to Dr. Auguste von Bayern ([avbayern@orn.mpg.de](mailto:avbayern@orn.mpg.de)) and Dr. Anastasia Krasheninnikova ([akrashe@orn.mpg.de](mailto:akrashe@orn.mpg.de)). Contact details of 2 referees may be requested. Closing date for the applications is 10.11.2018.

Anastasia Krasheninnikova <[anastacia.k@web.de](mailto:anastacia.k@web.de)>

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## NorthwesternU CBG PlantConservation

PLANT BIOLOGY AND CONSERVATION

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

To learn more, contact program director, Nyree Zerega ([nzerega@chicagobotanic.org](mailto:nzerega@chicagobotanic.org)) or visit our website: <http://www.plantbiology.northwestern.edu/> Application deadlines: PhD: December 1, 2018 (fully funded) MS (thesis-based): February 15, 2019 (schol-

arships available) MS (internship-based): Applications will be reviewed beginning February 15 and review will continue through April 30, 2019. Admissions are on a rolling basis.

Nyree J C Zerega <n-zerega@northwestern.edu>

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## Norwich UK Alternative Splicing Evolution

We offer a highly collaborative PhD project between three research groups (Haerty: bioinformatics, Wheeler: cell and developmental biology, Edwards: developmental and molecular biology) combining computational biology and experimental developmental biology to investigate the diversity and functional during Vertebrate development of alternatively spliced transcripts originating from genes of the ADAMTS (A Disintegrin and Metalloproteinase with /thrombospondin type I motifs) family. The PhD student will gain expertise in computational biology, large datasets analysis, transcriptomics, arising long read sequencing technologies, genetics, microscopy and developmental biology gaining highly transferable skills.

Nearly all the genes in human undergo alternative splicing, the process through which different transcripts are generated from a single gene. Despite the observation of the universality of alternative splicing in Eukaryotes, tissue and developmental stage specific regulation of splicing, and the importance of this mechanism in fundamental biological processes, much remain to be discovered regarding the function of alternatively spliced transcripts.

The aim of the project is to provide a novel understanding of the importance and regulation of alternative splicing in the ADAMTS gene family during development. ADAMTS are secreted enzymes with roles in tissue morphogenesis and patho-physiological remodelling. The student will apply combined computational and experimental approaches to annotate and functionally characterize transcripts through in-situ expression assays and gene manipulations in *Xenopus*.

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

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

For further information please contact Wilfried Haerty (wilfried.haerty@earlham.ac.uk)

Application deadline: November 26th 2019  
To apply, please visit our website: <http://www.biodtp.norwichresearchpark.ac.uk>  
Wilfried Haerty Group Leader Norwich Research Park Norwich Norfolk NR4 7UG +44 (0) 1603 450 974 wilfried.haerty@earlham.ac.uk [www.earlham.ac.uk](http://www.earlham.ac.uk) "Wilfried Haerty (EI)" <Wilfried.Haerty@earlham.ac.uk>

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## Ohio State U Evolution Of Mosquito Bloodfeeding

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

Lab environment: The Meuti lab is located on the

Columbus campus of The Ohio State University. The Meuti Lab is within the Entomology Department, one of the top entomology departments in the country, and is part of a Mosquito Working Group, with other leading experts. The department is close-knit, collegial and collaborative, and students in the lab have access to the all of the research equipment of a large, major research institution. Columbus is the 16th largest city in the USA and has many of the amenities of a large city (vibrant art and music scene, night life), but the city is still small enough to travel easily and the people are kind and helpful. The newly renovated lab space has designated areas for insect rearing, dissection and microinjection, processing and extracting samples, and performing molecular and PCR-based work. Graduate and undergraduate students work closely together and receive excellent mentorship to prepare them for a variety of careers in public health, medicine, industry and academia.

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

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

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

- (a) GPA,
- (b) GRE scores and percentiles,
- (c) degrees earned and relevant coursework,
- (d) publications,
- (e) research presentations,
- (f) awards/scholarships/grants, and
- (g) other relevant skills/qualifications.

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

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

Megan E. Meuti, PhD Assistant Professor College of

Food, Agriculture and Environmental Sciences

Department of Entomology

E-mail: [meuti.1@osu.edu](mailto:meuti.1@osu.edu)

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

Physical address: Room 232C Howlett Hall

2001 Fyffe Rd.

Mailing address: Room 216 Kottman Hall

2021 Coffey Rd.

Columbus, OH 43210

"Nicol, Megan" <[nicol.114@osu.edu](mailto:nicol.114@osu.edu)>

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## PortlandStateU NematodeMitonuclearEvolution

Available at Portland State University, Portland, Oregon: We are seeking a highly motivated and enthusiastic MS or PhD student to work on a National Science Foundation-funded project that uses experimental genomics in *C. elegans*\* nematodes to study mitonuclear evolution and the impact of sexual system on mitonuclear adaptation.

\*Planned start date:\* September 2019.

\*Project Description: \*Energy metabolism in nearly all eukaryotic life forms relies on coordinated interactions among gene products encoded by both mitochondrial and nuclear genomes, and thus depends upon inter-genomic coevolution. Neither the processes maintaining this coevolution nor its downstream evolutionary consequences are well understood. These consequences were recently hypothesized to include the evolution and maintenance of sexual reproduction. This project leverages the expertise and resources of three research groups to provide the direct, non-retrospective tests of major hypotheses to explain mitonuclear genome coevolution. These hypotheses predict that integration of the two genomes is achieved primarily by fixation of nuclear mutations that compensate for the deleterious effects of previously acquired mitochondrial mutations, and that this process will favor sexual recombination among nuclear chromosomes. We will apply experimental genomics with *Caenorhabditis elegans*\* nematodes to study evolutionary process within the context of the mitochondrial electron transport chain (ETC), the proper functioning of which relies on the maintenance of fa-



avorable mitonuclear epistatic interactions. The project will take full advantage of the powerful *C. elegans*\* system to: 1) Determine the impact of sexual system on the tempo and patterns of mitonuclear adaptation. *C. elegans*\* strains containing deleterious mitochondrial and nuclear-encoded ETC mutations will undergo laboratory adaptation in replicate populations experiencing obligate selfing, facultative outcrossing, or obligate outcrossing. This design also permits examination of how rates of sexual outcrossing evolve in response to these conditions. 2) Determine the evolutionary dynamics, functional characteristics and sex-specific effects of individual mitonuclear mutations. Genomic, bioinformatic and phenotypic analyses will determine the molecular bases and functional underpinnings of mitochondrial and nuclear mutations available to mask the effects of deleterious ETC mutations, and reveal the relationship between rates of outcrossing and mitonuclear adaptation.

**\*Location\*:** This project will be conducted under the direct supervision of Dr. Suzanne Estes with informal co-supervision from Drs. Vaishali Katju and Ulfar Bergthorsson (Texas A&M University). The work is based at the Department of Biology at Portland State University, located in the heart of downtown Portland, Oregon. The PSU Biology Department < <https://www.pdx.edu/biology/> >, which houses the Center for Life in Extreme Environments (CLEE) < <https://www.pdx.edu/extreme-environments/> >, has 21 research faculty and over 65 graduate students. Our faculty strive to take an integrative approach to biology, encompassing all levels of biological organization from molecules to ecosystems. We collaborate and share facilities with other science departments and with research faculty at Oregon Health & Science University, a medical school and teaching hospital located adjacent to PSU. This close proximity helps to foster interdisciplinary research and creates a vibrant research culture that ensures support and training for the next generation of evolutionary biologist.

**\*Requirements\*:** We are looking for a biology graduate who has a strong interest in evolutionary and molecular biology. Some practical experience in molecular, bioinformatic and/or *C. elegans*\* husbandry techniques is highly desired, but additional training will be provided. The successful candidate will be enthusiastic, highly motivated, independent, and have a relevant bachelors degree. The applicant must meet standard Portland State University graduate admissions and language requirements, details of which can be found here: <https://www.pdx.edu/graduate-admissions/apply>. Note: ONLY US citizen or permanent resident applicants are eligible for this studentship.

**\*Funding Notes\*:** \*The successful candidate will receive

a full studentship including tuition, fees and an annual living stipend of \$24,000 for up to 4 years for PhD students. Funds will also be available for research expenses and conference travel. Support beyond this time period may be available through a PSU departmental Teaching Assistantship.

**\*Deadlines and Contact\*:** \*The deadline for application is \*February 1, 2019\*. Please contact Dr. Suzanne Estes at [estess@pdx.edu](mailto:estess@pdx.edu) prior to this with informal enquiries.

Suzanne Estes, PhD

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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>

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## Portugal PlantDiversity

Dear Colleagues,

I would like to inform you about the call for applications for a research fellowship (MSc holder) in Biological Sciences/ Sustainable Management of Resources at the Research Center in Biodiversity and Genetics Resources (CIBIO-InBIO), Vairão, Portugal, which will be open until October 18th, 2018.

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

Thank you so much!

All the best,

CIBIO-InBIO's Science Communication and Outreach Office

CIBIO - Centro de Investigação em Biodiversidade e Recursos Genéticos/ InBIO Laboratório Associado, Universidade do Porto

Campus de Vairão

Rua Padre Armando Quintas

4485-661 Vairão

Portugal

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Research fellowship - MSc holder

Reference: ICETA 2018-60

Link to the call - (<http://www.eracareers.pt/-opportunities/index.aspx?task=global&jobId=104266>)

A Research fellowship - MSc holder is now open for applications at ICETA (CIBIO-InBIO - Reference ICETA 2018-60) in the context of the Project "FARSYD - FARming Systems as tool to support policies for effective conservation and management of high nature value farmlands" (PTDC/AAG-REC/5007/2014 - POCI-01-01-0145-FEDER-016664) granted by national funds by FCT/MCTES (PIDDAC) and co-funded by FEDER funds through the Operational Programme for Competitiveness Factors (POFC)- COMPETE.

Scientific areas: Biological Sciences/Sustainable Management of Resources.

Admission requirements: Candidates must hold a MSc. degree in Environmental and Biological Sciences, or related fields, and proven research experience in the field of ecological or environmental data management and/or modelling. Knowledge and/or proven experience in sampling design and advanced analysis of environmental and biological data (e.g. ArcGIS, Quantum GIS) and statistical analysis and tools (R environment) will be valued. Previous experience on scientific dissemination of results, namely publications in peer reviewed journals, and participation in scientific meetings are desirable. The candidate is expected to exhibit initiative, enthusiasm, good verbal and written communication skills in a scientific context and teamwork skills.

Project overview and workplan: FARSYD aims to tackle the relation between farming systems and biodiversity and ecosystem services in farmlands with high nature value (HNVf), whilst assessing trade-offs between driving forces behind land-use change, and the safeguard of the natural and social capital underlying such farmlands. In collaboration with FARSYD team members, the grant holder will be responsible for:

- i) support the design and implementation of field surveys to collect data on plant diversity and habitats;
- ii) management and geo-statistical analysis of biological (plants and vegetation) and environmental data;
- iii) analyse the variation of plants and habitats in farming systems under distinct management regimes.

The grant holder will also support the organization and participate in project meetings, and in the dissemination of project results (national and international conferences). The successful candidate must have initiative, responsibility, good verbal and written communication skills in both English and Portuguese, good communication and teamwork skills.

Keywords: Agrobiodiversity; Farmlands; High Nature

Value farmlands; Policy impacts

Legislation framework: A fellowship contract will be celebrated according to the regulations defined by FCT "Regulations for Advanced Training and Qualification of Human Resources", in accordance with Law 40/2004, of 18 August, as amended and republished by Decree-Law No. 202/2012 of 27 August, and as amended by Decree-Law No. 233/2012 of 29 October and by Law No. 12/2013, of 29 January, and Decree-Law No. 89/2013 of 9 July, to Fellowships Regulation of FCT < <http://www.fct.pt/apoios/bolsas/docs/-RegulamentoBolsasFCT2015.pdf> > ([www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf](http://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf)), and to Fellowships Regulation of ICETA approved by FCT.

Work place: The work will be conducted at CIBIO-InBIO, UP - Centro de Investigação em Biodiversidade e Recursos Genéticos, Universidade do Porto, Campus de Vairão, Rua Padre Armando Quintas, 7, 4485-661 Vairão, and in CIBIO-InBIO pole in Lisbon (Instituto Superior de Agronomia) under the scientific supervision of Doctor Ângela Lomba and Doctor Francisco Moreira, respectively.

Fellowship: The fellowship will have a duration of 6 months expected to start November 2018.

Salary: Monthly stipend is euro 980 according to

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

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## QueensC CUNY EvolutionGeneExpression

Doctoral student opportunities are available for highly motivated and independent PhD students in the Dennehy Lab (<https://dennehylab.org/>) at Queens College of the City University of New York (<http://www.qc.cuny.edu/Pages/home.aspx>) to work on an NIH-funded project on the evolution of gene expression control mechanisms using a bacteriophage model system ([https://projectreporter.nih.gov/project\\_info\\_description.cfm?aid=67413&icde7245771](https://projectreporter.nih.gov/project_info_description.cfm?aid=67413&icde7245771)).

The project involves the manipulation of phage gene expression and gene expression regulatory mechanisms

to understand how control strategies that buffer randomness in gene expression affecting lysis time and macromolecular assembly evolve. We are recruiting researchers with diverse backgrounds, but experience with phages/microbiology is desirable. See our modeling paper in PNAS for more details: Ghusinga K, Dennehy JJ & Singh A. 2017. First-passage time approach to controlling noise in timing of intra-cellular events. Proceedings of the National Academy of Sciences USA 114: 693V698. < <https://dennehylab.org/pw/c0nt3nt/uploads/2017/01/2017-Ghusinga-et-al.-PNAS.pdf> >

Students admitted to the CUNY Biology doctoral program (<https://www.gc.cuny.edu/Page-Elements/Academics-Research-Centers-Initiatives/Doctoral-Programs/Biology>) receive an admissions package that guarantees a \$30,000 annual stipend, health insurance, and tuition remission for five years and no teaching responsibilities in the first year.

Apply by January 1st 2018 at <https://www.gc.cuny.edu/Prospective-Current-Students/Prospective-Students/Admissions> . Email [john.dennehy@qc.cuny.edu](mailto:john.dennehy@qc.cuny.edu) for more information.

John J. Dennehy, PhD Professor of Biology Deputy Executive Officer, Biology PhD Program Queens College and The Graduate Center of CUNY [john.dennehy@qc.cuny.edu](mailto:john.dennehy@qc.cuny.edu) Office SB D322 (718) 997-3411 Lab SB D343 (718) 997-3419 [dennehylab.org](http://dennehylab.org) [ougr.qc.cuny.edu](http://ougr.qc.cuny.edu) <https://twitter.com/DrJDennehy> John Dennehy <[john.dennehy@qc.cuny.edu](mailto:john.dennehy@qc.cuny.edu)>

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## QueensU Belfast EvolutionGutMicrobiomes

A funded PhD project is available in the Creevey group at Queen's University Belfast, UK on the microbial ecology of vertebrate gut microbiomes. Open to students with biology/computer/bioinformatic backgrounds.

Project Title: What are the key ecological principles underlying vertebrate gut microbiomes? Apply here: <https://www.findaphd.com/search/ProjectDetails.aspx?PJID106> Deadline: Monday 5th November 2018.

Project Description Gut microbiomes are complex ecosystems that, when stable, promote disease resistance and productivity in the host. While much of the recent research in gut microbiomes has focused on the changes that occur in gut microbial communities in re-

sponse to fluctuations in the environment or caused by disease, little is known about the factors that promote stability in healthy microbiomes.

This project will initially use the rumen microbiome to investigate this phenomenon. Found in the first stomach chamber of ruminants such as cattle and sheep, this highly complex microbial community is essential to the survival of its host as it breaks down complex carbohydrates into nutrients vital for the host's survival. We will use computational approaches to investigate how ecological and evolutionary principles developed for understanding macro-communities can further our understanding of stability in microbial communities in the rumen. This will then be extended to other gut ecosystems to investigate whether the same principles apply across other vertebrates.

This is a computational project and is suitable both for biologists keen to learn bioinformatics or computational students keen to work with biological data. Successful applicants will join the Ecological and Evolutionary Genomics group under the supervision of Professor Chris Creevey (<http://www.creeveylab.org>).

Research aims: To understand the ecological principles underlying gut microbiome homeostasis we need to know:

Â How responses of the gut microbiome to external perturbations cause variable degrees of deviation from homeostasis.

Â Which homeostatic responses may be competitively advantageous for transient perturbations.

Â How functional (genes) and compositional (species) factors drive retention and recuperation of homeostasis.

Â Whether the host exerts sufficient influence to promote homeostasis in the gut microbiome and which factors in the microbiome are most associated.

Funding Notes:

This project is funded by the Department for the Economy (DfE). Only UK and EU students are eligible to apply. Full information on eligibility criteria is available from the DfE website: [View Website](#)

Academic requirements:

A 2.1 UK Honours degree (or equivalent) in a relevant subject is required.

Chris Creevey <[chris.creevey@qub.ac.uk](mailto:chris.creevey@qub.ac.uk)>

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## St Andrews Social Evolution Theory

Natural selection explains the appearance of design in the living world. But at what level is this design expected to manifest? Gene, individual, society? And what is its function? Social evolution provides a window on this problem, by pitting the interests of genes, individuals and societies against each other.

I invite applications for a fully-funded 3.5 year PhD studentship in my research group at the School of Biology, University of St Andrews, UK. I'm looking for a biology graduate who has a strong interest in social evolution theory, or an economics / mathematics / philosophy / physics graduate with a strong interest in social behaviour.

Current research in my lab involves development of general theory using kin selection, multilevel selection, game theory and theoretical population genetics approaches and application of mathematical and simulation models that are tailored to the biology of real organisms, from microbes to insects to humans (see <http://synergy.st-andrews.ac.uk/gardner/> for more details). To this end, I strongly encourage interactions within the wider grouping of theoretical and empirical biologists in St Andrews, as well as with collaborators further afield.

If social evolution really fascinates you, and you are a careful thinker, then you will flourish in the type of project that I enjoy supervising.

Please direct informal enquiries to Prof Andy Gardner ([andy.gardner@st-andrews.ac.uk](mailto:andy.gardner@st-andrews.ac.uk), @drandygardner). For more details, please visit <https://www.findaphd.com/-search/ProjectDetails.aspx?PJID=101171> Best wishes Andy Gardner  
X Prof Andy Gardner School of Biology University of St Andrews Dyers Brae St Andrews KY16 9TH United Kingdom

Email. [andy.gardner@st-andrews.ac.uk](mailto:andy.gardner@st-andrews.ac.uk) Web. <http://synergy.st-andrews.ac.uk/gardner/> Twitter: @drandygardner Tel. +44 (0) 1334 463 385 Fax. +44 (0) 1334 463 366

Andy Gardner <[andy.gardner@st-andrews.ac.uk](mailto:andy.gardner@st-andrews.ac.uk)>

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## StockholmU Plant Systematics

Graduate position/PhD position in Plant Systematics at Stockholm University

Closing date: 5 November 2018.

We have an opening for a highly motivated graduate fellow to work on the research project "Genome evolution in parasitic plants" in the group of Dr. Gitte Petersen at Stockholm University.

The complete ad with information on how to apply is available on the Stockholm University webpage: <https://www.su.se/english/about/working-at-su/-phd?cache=1%27> Project description: The Department of Ecology, Environment and Plant Sciences invites applications for a four-year PhD position part of the project Genome evolution in parasitic plants. Plant parasitism, where one plant obtains some or all of its nutrients and water from a host plant, has evolved multiple times within angiosperms. One of the goals of the current project is to compare organelle genomes across the diversity of parasitic angiosperms to uncover patterns potentially related to a parasitic lifestyle. Existing research has shown large changes in the chloroplast genomes of parasitic and mycoheterotrophic plants, likely as a result of the decreased need for photosynthesis in the parasite. An outstanding question surrounds whether there are shared patterns of evolution in the mitochondria of parasites. One clade of interest, the Santalales, have shown substantial reductions in mitochondrial gene content (specifically within mistletoe, *Viscum* spp.), and the successful applicant would be tasked with tracing the evolution of this and other mitochondrial patterns through the Santalales. The position would involve de novo assembly of mitochondrial (and potentially chloroplast) genomes, targeted sequencing of mitochondrial genes, and comparative analyses in a phylogenetic context.

Qualification requirements: In order to meet the general entry requirements, the applicant must have completed a second cycle degree, completed courses equivalent to at least 240 higher education credits, of which 60 credits must be in the second cycle, or have otherwise acquired equivalent knowledge in Sweden or elsewhere.

In order to meet the specific entry requirements, the general syllabus for doctoral studies in the field of Plant Systematics stipulates that applicants must have com-

pleted at least 60 higher education credits in the second cycle, of which 15 credits must be from a course in Plant Systematics, and 30 credits from a project in Plant Systematics. Applicants may also have otherwise acquired equivalent knowledge in Sweden or elsewhere. The qualification requirements must be met by the deadline for applications.

**Selection:** The criteria used in the selection for admittance to research training in Plant Systematics are knowledge of theory and applications in the research field, ability to communicate orally and in writing, knowledge of English, creativity, initiative, independence and collaboration ability. Hands-on experience with Next Generation Sequencing and bioinformatics tools will be considered special merits, as well as good knowledge of phylogenetics. Admission Regulations for Doctoral Studies at Stockholm University are available at: [www.su.se/rules](http://www.su.se/rules). **Terms of employment:** Only a person who will be or has already been admitted to a third-cycle programme may be appointed to a doctoral studentship. The term of the initial contract may not exceed one year. The employment may be extended for a maximum of two years at a time. However, the total period of employment may not exceed the equivalent of four years of full-time study. Doctoral students should primarily devote themselves to their own education, but may engage in teaching, research, and administration corresponding to a maximum of 20 % of a full-time position. Please note that admission decisions cannot be appealed. Stockholm University strives to be a workplace free from discrimination and with equal opportunities for all.

**Contact:** For more information, please contact project leader Gitte Petersen, telephone: +46 8 16 43 97, [gitte.petersen@su.se](mailto:gitte.petersen@su.se). Further information about the position can be obtained from the Subject Representative, Professor Catarina Rydin, telephone: +46 8 16 12 15, [catarina.rydin@su.se](mailto:catarina.rydin@su.se).

**Application:** Apply for the position at Stockholm University's recruitment system by clicking the "Apply" button. It is the responsibility of the applicant to ensure that the application is complete in accordance with the instructions in the job advertisement, and that it is submitted before the deadline.

Closing date: 05/10/2018

Gitte Petersen <[gitte.petersen@su.se](mailto:gitte.petersen@su.se)>

## Taiwan Evolutionary Ecology

Behavioral Ecology and Evolutionary Ecology PhD positions available in Taiwan

Research projects:

\*1. **Interaction between two damselfly subspecies in their contact zone\***

The two morphologically distinct damselfly subspecies, the *Psolodesmus mandarinus mandarinus* and *P. m. dorothea*, co-distribute in the central-north Taiwan. From our previous investigation in their allopatric populations, we are on our way disentangling how natural and sexual selection may have caused and enhanced their divergence. In this current project, the aim is to focus on their contact zone(s) to further examine if these factors actually play a role in their speciation process.

\*2. **The evolution of avian mating systems\***

The avian mating systems are highly diverse either within or between taxa. The aim of this project is to investigate the potential causes of the diversity of avian mating systems.

Requirements:

1. A MSc degree in Biology, Ecology, Evolution or Statistics.
2. Highly motivated students who are able to work independently for his/her own project and also able to collaborate with other team members.
3. Specific preferences for each project
  - a. For project one, students who are able to and are enthusiastic to conduct long-term field behavioral observation yet understand the observed phenomena under an evolutionary scale are preferred.
  - b. For project two, students with strong statistical background are preferred.

Scholarship possibility:

A PhD scholarship is open to apply for students lecturing in universities in South Asia and South-east Asia without a PhD. This scholarship provides 25,000 NTD/month/student for up to 3 years (but the tuition fee is not waived). Further funding may be applied and/or discussed. Students outside of this limitation but with own funding (even partially) are also welcome to contact Dr Yu-Hsun Hsu for other potential funding

source.

How to apply:

Students interested in either one of the projects please send the following documents to Dr Yu-Hsun Hsu (yuh-sunhsu@mail.ncku.edu.tw) before 2nd Nov 2018:

1. CV
2. The name and contact info of two referees
3. A one-page research statement with your previous research experience and your research interests (please refer to the project you would like to apply to and why you are suitable for it)

Contact:

Dr Yu-Hsun Hsu, yuh-sunhsu@mail.ncku.edu.tw

Research website: <https://sites.google.com/site/yuh-sunhsu/> Department of Life Science, National Cheng-Kung University

Website: <https://www.bio.ncku.edu.tw/english> Yu-Hsun Hsu PhD. Assistant Professor Department of Life Sciences National Cheng Kung University, Taiwan Email: yuh-sunhsu@mail.ncku.edu.tw Tel: +886-6-2757575 ext. 58132 Website: <https://sites.google.com/site/yuh-sunhsu/>

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## TexasAMU EvolutionaryBiol

\*To:\*prospectivePhD Students

\*From:\*Ecology and Evolutionary Biology (EEB) Doctoral Program, Texas A&M University

\*Re:\*PhD positions at Texas A&M and visiting Travel Grants

\*\_Why should you consider obtaining a PhD at Texas A&M University?\_\*The Ecology and Evolutionary Biology (EEB) Program at Texas A&M is a relatively new doctoral program at one of the largest and best-funded universities in the United States. It has a strong mixture of nationally and internationally recognized junior and senior faculty working across the globe on a diverse range of basic and applied research, spanning physiological, population, community, ecosystem and landscape ecology, genetics, genomics, behavior, and systematics (\*to learn about our /\*\*faculty visit\*: <http://eeb.tamu.edu/people/faculty/>). Support for graduate study is available through multiple sources, including teaching assistantships, research fellowships, and inter-

nal merit fellowships. Texas A&M University is positioned at the interface of the Neotropics and Nearctic, in Blackland Prairie and Post Oak Savannah habitat, which supports great species diversity and a wealth of research opportunities with great climate during the academic year. Its location also provides a good base for access to a broad range of habitats and research sites. Additionally, its proximity to Austin, Dallas, Houston, and San Antonio offers easy air travel and a cultural component to a whole graduate experience.

\*The Ecology and Evolutionary Biology Doctoral Program at Texas A&M is pleased to announce the availability of travel grants for prospective PhD students.\*These travel grants, which will be awarded on a competitive basis, will cover the costs of a domestic flight to and from College Station, hotel accommodations while in College Station, plus a /per diem/ for meals. The aim of the travel grant is to provide prospective PhD students the opportunity to:

with faculty and meet current graduate students

the department and campus to learn about available resources and facilities

College Station and its surrounding areas

\*Travel grants will be awarded in January with travel scheduled for February 3-5, 2019. \*Travel grant awardees will spend time together during their visit, thus gaining immediate insights into their future cohort.

\*\_How to apply?\_\*\_\*/To be considered for a travel grant/\*, prospective PhD students first need to contact Dr. Jason Martina, the EEB Program Coordinator (email: [jpmartina@tamu.edu](mailto:jpmartina@tamu.edu) <<mailto:rhapas@tamu.edu>>; phone: 979 845-2114). \*\_\*/To receive a travel grant/\*, an official Graduate Application package must be submitted to the EEB Program. For additional information about the EEB Program and the graduate application process please visit:<http://eeb.tamu.edu>\*/\_\* \*/\_\*

\*For consideration for PhD merit fellowships, your application needs to be received by December 15, 2018\*

– Jessica E. Light Associate Professor and Curator of Mammals Department of Wildlife and Fisheries Sciences Biodiversity Research and Teaching Collections Texas A&M University College Station, TX 77843 979-458-4357 <http://www.jessicalight.org/>

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## TexasAMU EvolutionaryGenomics

### PhD/MS Positions in Evolutionary Genomics

The Casola lab at Texas A&M University seeks applicants interested in pursuing a MS or PhD in evolutionary genomics. We use bioinformatics, comparative genomics and phylogenetics to study molecular evolution and adaptation in forest trees, forest pests, and other organisms. Current research focuses on gene family evolution and gene copy-number variants in conifers and we are starting to work on bark beetle genomics in collaboration with Dr. Heath Blackmon. Enquires about other research avenues within the scope of evolutionary genomics are welcome.

Prospective students should email a short description of research interests and a CV to Claudio Casola (ccasola@tamu.edu). Students are encouraged to get in touch as soon as possible and to apply before December 15 in order to be eligible for departmental and college funding opportunities. Check out information for prospective students for graduate degrees in Ecosystem Science and Management (ESSM) or in Ecology and Evolutionary Biology (EEB). <https://essm.tamu.edu/academics/graduate/-prospective/application/> <https://eeb.tamu.edu/-graduate-program/prospective-students-2/> Dr. Claudio Casola Assistant Professor Department of Ecosystem Science and Management Texas A&M University <https://agrillife.org/casolalab/> ccasola@tamu.edu

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## TexasAMU PlantSystematicsBiogeography

### PhD and MS graduate positions in Plant Systematics and Biogeography

Multiple PhD and MS graduate student positions are available in the Spalink Lab at Texas A&M University beginning in Fall 2019. Lab research concentrates on the intersection of evolution, ecology, and geography with an emphasis on modeling the roles of time, space, and form in the diversification and maintenance of life. The lab's ultimate goal is to merge our understanding of

the evolutionary history of plant lineages with observed patterns of biodiversity within and across landscapes. In observing diversity around the world in the context of global change, we ask: What is here? Why is it here? Where is it going? Projects in the Spalink Lab range from analyzing the dynamics of genetic diversity within species to the evolution of entire orders, and from regional patterns of community assembly to the global structure of phylogenetic, functional, and morphological diversity. Students with interests in a wide variety of taxonomic groups and geographic localities are welcomed to apply.

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

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

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

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

Interested applicants should contact Dr. Daniel Spalink (dspalink@tamu.edu) and provide a description of your research interests and a CV/resume. Initial screening of students will begin immediately. For full consideration, applications are due February 15. However, we strongly recommend applying by December 15 to ensure full consideration for departmental and college fellowship opportunities. The Department of Ecosystem Sciences and Management, EEB, and the College of

Agriculture and Life Sciences have many opportunities for fellowships, research assistantships, and teaching assistantships. Details regarding the application process can be found at <https://essm.tamu.edu/academics/-graduate/prospective/application/> (ESSM) and at <https://eeb.tamu.edu/graduate-program/prospective-students-2/> (EEB).

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

“Spalink, Daniel” <dspalink@exchange.tamu.edu>

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## TexasTechU EvolutionaryGenomicsBirdsAnts

The Manthey lab in the Department of Biological Sciences at Texas Tech University is recruiting highly-motivated individuals for graduate studies (PhD or MS) in genomics to begin in Summer or Fall 2019. We use computational biology, fieldwork, and labwork to answer fundamental questions in evolution, ecology, and conservation biology.

The major themes of our current research are: (1) evolutionary genomics and transposable element evolution in woodpeckers, (2) genomics of Ethiopian highland birds, (3) ant and microbe co-evolution and genomics. Graduate students would be expected to develop novel research questions under these broad themes. For more information about the lab's research and opportunities, please check our site: <https://mantheylab.org/> We have financial support for multiple students through research and teaching assistantships, including additional summer support and research funds.

Interested individuals should email a CV/resume to Dr. Joseph Manthey ( [jdmanthey@gmail.com](mailto:jdmanthey@gmail.com) or [joseph.manthey@ttu.edu](mailto:joseph.manthey@ttu.edu)), as well as a short description of how your interests and the research topics of our research group complement each other.

The Department of Biological Sciences has a strong and dynamic group of scientists with a focus in ecology and evolutionary biology. The department has strengths in multiple areas of genomics, bioinformatics, and specialized disciplines of ecology and evolutionary biology. The departmental website can be found here: <http://www.depts.ttu.edu/biology/> ~Deadline for applications~ Our department has year-long open admissions but has deadlines to be considered for schol-

arships and fellowships. For Fall 2019, this deadline is January 15, 2018. Please find all application details here: <http://www.depts.ttu.edu/biology/academics/-graduate/prospective-students/> All qualified applicants are encouraged to contact me and apply. While academic and GRE scores have a role in admissions, motivation, passion, and research experience are highly valued. Texas Tech University is an Equal Opportunity Employer, and we welcome applications from all qualified persons and will ensure that all applicants are treated fairly, equally, and respectfully.

Joseph D. Manthey, Ph.D. Assistant Professor,  
Biological Sciences Texas Tech University Email:  
[jdmanthey@gmail.com](mailto:jdmanthey@gmail.com) | [joseph.manthey@ttu.edu](mailto:joseph.manthey@ttu.edu)  
<https://mantheylab.org/> Joseph Manthey  
<[jdmanthey@gmail.com](mailto:jdmanthey@gmail.com)>

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## Tours France InsectInteractionNetworks

Temporal dynamics of insect assemblages and interactions in oilseed rape crops

Background:

Among the potential solutions for a sustainable agriculture, the concept of ecological intensification is particularly promising. It hinges on the hypothesis that by acting on populations and diversity of service providers, it is possible to increase the multi-functionality of ecosystems. To fully deploy an ecological intensification strategy and ensure optimum delivery of ecosystem services, a better understanding of the underpinning mechanisms shaping not only biodiversity but also interaction networks and their associated services is needed. In agroecosystems, regulatory services such as animal pollination and biological control of pests are particularly important because they have the potential to maintain or increase crop production while reducing chemical inputs. These services are based not only on key species but also on their trophic interactions.

The aim of this internship is to describe of the temporal dynamics of species assemblages and interaction networks involving key species of regulatory services in oilseed rape (OSR) crops.

Tasks:

The research will involve monthly collection of samples in the field (carabids, aphid mummies and possibly pollen pellets from beehives) between March and



July, specimen identification and preparation those samples for next generation sequencing (illumina platform). Fieldwork will be take place in Chize (Centre d'étude Biologique de Chize). Laboratory work including insect identification, dissection of carabids, DNA extraction, DNA amplification and DNA purification, will take place in Tours (Institute de Recherche sur la biologie de l'Insecte). After preparation, the samples will be sent to an external platform for high-throughput DNA sequencing. If the sequencing data are obtained before the end of the internship, the student will have the opportunity to perform basic bioinformatic analyses to reconstruct trophic interactions networks.

Requirements:

- The student will be comfortable in the field and in a molecular laboratory
- Basic knowledge about insect taxonomy and utilisation of identification keys
- Driving licence + personal vehicle
- Experience in DNA extraction and PCR would be appreciated

Skills to be learned:

The student will learn about field experimental design, field-collection of invertebrates and the different steps required for the preparation of samples prior to high-throughput DNA sequencing. Depending on the time required to obtain sequencing data, the student may also have the opportunity to learn some basic bioinformatic skills.

Additional information

This internship is part of the ANR-funded project IMAgHO (Increasing the Multifunctionality of Agroecosystems by Harnessing fOod webs) and may be followed by a PhD position starting in September 2019 in Tours. Prospective applicants are encouraged to contact Stephane Boyer ([stephane.boyer@univ-tours.fr](mailto:stephane.boyer@univ-tours.fr)) to discuss the project. Starting date: January to February 2019; duration: 6 months; stipend: 568 euros net per month.

Supervisor:

Stephane Boyer ([stephane.boyer@univ-tours.fr](mailto:stephane.boyer@univ-tours.fr))

Institut de Recherche sur la Biologie de l'Insecte, Université de Tours, Campus de Grandmont, Batiment I, bureau S050 Cheers, Stephane.

Image result for logo irbi

Professor Stephane Boyer Editor in Chief of Rethinking Ecology

Insect Biology Research Institute (IRBI) - UMR 7261

CNRS / Tours University

Parc Grandmont, Avenue Monge, 37200 Tours, FRANCE

Email [stephane.boyer@univ-tours.fr](mailto:stephane.boyer@univ-tours.fr) | Tel +33 2 47 36 74 55

my websites <http://stephaneboyer.wixsite.com/research> | <http://www.nzmolecol.org> | <http://spider.r-forge.r-project.org> find me on ResearchGate | GoogleScholar | ImpactStory | Publons | Mendeley | ORCID

my twitter account @Zelpapang

my journal <http://rethinkingecology.pensoft.net/> Stephane Boyer <[stephane.boyer@univ-tours.fr](mailto:stephane.boyer@univ-tours.fr)>

## TrentU InvasiveSpeciesEvolution

Graduate student research into hybridization, inbreeding, and invasive species

Surprisingly little is known about the extent to which inbreeding depression impacts wild populations, although we do know that stress typically increases the negative effects of inbreeding. Rapidly changing environments, including novel competition from alien invasive species, provide potential stressors to plant species that regularly inbreed and may have not previously experienced ill effects from this inbreeding. Cattails (*Typha* spp.) in eastern North America include native and introduced species, but the most invasive taxon is the hybrid *T. x glauca*. The parental species (*T. latifolia* and *T. angustifolia*) have the potential to inbreed, but we don't know how common inbreeding is, or whether it leads to a reduction in fitness. Hybrids, on the other hand, have very high levels of genetic diversity and even when inbred should be less likely to experience inbreeding depression, at least in the F1 generation.

Using a combination of field work, experimental gardens, and genetic work, up to two grad students (MSc or PhD) will investigate the effects of inbreeding and outbreeding in natural populations of *T. latifolia*, *T. angustifolia*, and *T. x glauca* and test a number of hypotheses that can help to explain the dominance and invasion of southern Ontario wetlands by hybrid cattails. There is the option here to also include aspects of community and ecosystem diversity and genetics. For more information see <https://people.trentu.ca/~joannafreeland/index.html> If you are interested in these types of projects, please send me an e-mail ([joannafreeland@trentu.ca](mailto:joannafreeland@trentu.ca)) and include

your c.v., a copy of your transcripts (unofficial is okay), and a statement of your research interests

Joanna Freeland <joannafreeland@trentu.ca>

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## TrinityC Dublin MolecularEvolution

PhD studentship in Molecular Evolutionary Genetics (4 years)

Applications are invited for a PhD studentship position in Prof Aoife McLysaghts research group at the Smurfit Institute for Genetics, Trinity College Dublin. The position is funded for 4 years, starting either in March 2019, or September 2019.

This is a primarily computational biology project about molecular evolution, but there will be some opportunities for wet-lab molecular biology.

The fellowship is part of our new European Research Council-funded project DOUBLEEXPRESS, whose aim is to explore the complex relationship between gene duplicability and gene expression and how this may something be linked to disease risk. Some of the ideas behind this are described in a recent paper : Rice, Alan M, and Aoife McLysaght. 2017. "Dosage-Sensitive Genes in Evolution and Disease." *BMC Biology* 15 (1). BioMed Central: 78. doi:10.1186/s12915-017-0418-y.

You will be part of a team that will comprise three post-doctoral researchers and four PhD students. Working on this project will require ingenuity, flexibility, initiative, and the ability to devise new approaches. The research will involve writing scripts (for example in Python), handling large amounts of genomic data, and carrying out statistical analysis. The molecular biology work will involve yeast experimental genetics.

Applicants must have completed a BSc (Hons) or equivalent degree in Genetics or a molecular biology discipline. An interest in molecular evolution and bioinformatics is essential. Computer programming or bioinformatics experience is useful.

Stipend: æ18,000 per annum, plus academic fees.

Information about our lab is available at [www.gen.tcd.ie/molevol](http://www.gen.tcd.ie/molevol) Applicants should email a cover letter and CV (including contact details for two referees) to [aoife.mclysaght@tcd.ie](mailto:aoife.mclysaght@tcd.ie)

Closing date: 7 January 2019, at 17.00 hrs (Irish Time)

Aoife Mc Lysaght <MCLYSAGA@tcd.ie>

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## TuftsU GenomicsSpeciationAdaptation

Research Area: Genomics of Speciation and Climate Adaptation

The Dopman Lab at Tufts University is seeking to recruit M.S. & Ph.D. students interested in the genomics of speciation and climate adaptation. The long-term goal of our research is to understand the mechanisms by which organisms adapt to changing environments or split into genetically isolated populations, central issues for understanding the origin and persistence of biodiversity.

We investigate the genetic, environmental, and demographic factors influencing hybridization and fit to the environment. Working with insects, our approaches commonly involve a combination of field observation, experimentation in controlled environments, and bioinformatics. Projects on speciation use hybridizing populations to understand the genetic basis and evolution of biological timing (seasonal and daily) and mating behavior. Current work on climate adaptation focuses on seasonal timing, its genetic repeatability, and its influence on fitness and population persistence.

An undergraduate background in molecular genetics, genomics, evolution, or ecology is preferred, as is prior research experience. Highly relevant experience includes application of molecular genetic techniques or analysis of genome data. Students must also have the ability to work with others and a sense of humor, both of which are needed to make science fun and worthwhile.

The Dopman Lab (<http://ase.tufts.edu/biology/labs/-dopman>) is in the Department of Biology (<http://ase.tufts.edu/biology/>) and is a member of Tufts Collaborative Cluster in Genome Structure and Developmental Patterning. The Cluster focuses on genome to organism research and is located on the main campus in Medford, MA. With two additional campuses (Boston and Grafton), other research universities (Harvard, MIT, BU), and the vibrant city of Boston all within reach, Medford and Tufts are ideal places to live and work.

For more information, please email Erik Dopman ([erik.dopman@tufts.edu](mailto:erik.dopman@tufts.edu)). Applications to the graduate program are due on December 1, with departmental review occurring shortly thereafter. Later applications may also be considered. For more information on the

graduate program, see <http://ase.tufts.edu/biology/-graduate> Erik.Dopman@tufts.edu

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## TulaneU EvolutionaryBiology

The Department of Ecology and Evolutionary Biology at Tulane University (<http://www2.tulane.edu/sse/eebio/>) in New Orleans encourages applications to our Ph.D. program and BELOW our M.Sc. program.

Our department houses a dynamic and collegial team of researchers, educators, and students. We have established research strengths in coastal and tropical systems, with interests that include animal behavior, community ecology, conservation biology, evolutionary biology, physiological ecology, population genetics and genomics, tropical ecology, and urban ecology. A high proportion of students have received competitive fellowships from the National Science Foundation and other sources, with most students going on to high quality post-doctoral fellowships, faculty positions, and jobs in industry and governmental and non-governmental agencies.

We are committed to promoting diversity in STEM. The proportion of doctoral students from under-represented groups in STEM in our program far exceeds the national average, and we particularly welcome applications from members of groups that are traditionally under-represented in the field of Ecology & Evolutionary Biology.

Research faculty currently accepting Ph.D. students are:

Dr. Hank Bart (<http://people.tubri.org/hank/>), whose research interests focus on ecology and systematics of freshwater fishes and amphibians

Dr. Keith Clay, whose research interests focus on symbiotic interactions and their effect on larger scale ecological and evolutionary processes, utilizing a variety of systems from vertebrates to bacteria, with an emphasis on plants and fungi.

Dr. Emily Farrer (<https://emilyfarrer.wordpress.com>), whose research interests include plant ecology, plant-microbe interactions, global change biology, invasive species, wetland ecology, population genetics, and botany

Dr. Kathleen Ferris (<https://kathleengferristulane.wordpress.com>), whose research addresses quantitative and population genetics of natural plant populations, speciation, and plant ecology

Dr. Alex Gunderson (<http://www.physiological ecology.com>), who works with physiological and evolutionary ecology, global change biology, and herpetology

Dr. Jordan Karubian (<http://karubian.tulane.edu>), who works in tropical ecology and conservation, animal behavior, and urban ecology

Dr. Caz Taylor (<http://caz.tulane.edu>), whose research focuses on population biology of migratory species, urban, and wetlands ecology.

Prospective students are encouraged to reach out directly to faculty members who they would be interested in working with. For more general inquiries, please contact Graduate Studies Coordinator, Dr. Jordan Karubian at [jk@tulane.edu](mailto:jk@tulane.edu).

EEBIOL <[eebiol@tulane.edu](mailto:eebiol@tulane.edu)>

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Department of Ecology and Evolutionary Biology in the School of Science and Engineering at Tulane University (<http://www2.tulane.edu/sse/eebio/>) encourages applications to our MS program, a one-year, non-thesis MS program.

The Plus One degree program is designed for students who are interested in seeking employment with environmental agencies of federal, state, and municipal government; non-governmental organizations; and in private industry, including environmental consulting firms. The program also will be useful for students planning to enter more advanced professional degree programs (e.g., law, public health, medicine, veterinary medicine, natural resources management) and for students intent on pursuing additional academic training (e.g., Ph.D. degree programs). The program is also useful for students seeking to strengthen teaching skills and pedagogy for a future career in education.

Students have freedom to design the program to meet their educational and professional needs, but typically elect to pursue one of three tracks in the program:

- (1) Research, in which students work closely with a tenured or tenure-track faculty mentor, with the goal of strengthening research capacity and potentially producing a peer-reviewed publication; these students typically use this track as a stepping stone to a Ph.D. program in Ecology and Evolutionary Biology or a related field.
- (2) Pedagogy, in which students work closely with one or more teaching faculty mentors, with the goal of strengthening teaching experience and skills, including the option to serve as an Teaching Fellow in EBIO 1010, Diversity of Life; these students typically go on to teach at the high school or elementary school level or otherwise

engage in educational

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Interested students should contact Dr. Stephen Secor at [ssecor@ua.edu](mailto:ssecor@ua.edu). Graduate applications are reviewed continuously, however it encouraged that applications be received by December 1st. On-line application information is available at <http://graduate.ua.edu>. Stephen M. Secor Professor Department of Biological Sciences University of Alabama Tuscaloosa, AL 35487 [ssecor@ua.edu](mailto:ssecor@ua.edu)

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## UAlabama EvolutionaryIntegrativePhysiology

UAlabama.EvolutionaryIntegrativePhysiology

The Secor Laboratory of Evolutionary and Integrative Physiology (<http://ssecor.people.ua.edu>) in the Department of Biological Sciences (<http://bsc.ua.edu>) at the University of Alabama is seeking Masters and PhD students for the fall semester of 2019.

I am seeking highly motivated and qualified students interested in exploring the integrative and evolutionary mechanisms underlying phenotypic flexibility of organs and tissues. NSF and NIH-funded programs will allow students to explore the cellular and molecular mechanism underlying the regulation of intestinal form and function, the evolution of digestive responses to feeding and fasting, the adaptive interplay between feeding habits and digestive physiology, and the capacity and mechanisms of tissue remodeling.

The work is largely with reptiles with a focus on both infrequently-feeding (e.g., boas, pythons) and frequently-feeding (e.g., water snakes, alligators) species. However, students can develop projects to examine other adaptive physiological responses in invertebrates, fishes, and amphibians. Prospective PhD students should have their MS (although not necessary), to have demonstrated writing proficiency, and be familiar with potential research organism(s).

Full-year support is provided for all graduate students and includes graduate teaching assistantships and summer supplements. Tuition is waived for graduate teaching assistants. Research and travel funds are available from my lab, the department, and the Graduate College.

The University of Alabama (<https://www.ua.edu>), located in Tuscaloosa, Alabama, is one of the fastest growing 4-year PhD-granting universities in the country. The area provides ample housing, entertainment, sporting events, and outdoor recreation.

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## UArkansas NeuroEvoDevo

The Nakanishi lab at the University of Arkansas seeks applicants interested in pursuing a MS or PhD in evolutionary developmental biology of animals. Current research efforts of the lab are focused on reconstructing deeply conserved mechanisms of how nervous systems develop and function by using cnidarians 'V sea anemones and jellyfish in particular. Student's research projects may involve gene expression analyses (e.g. in situ hybridization and immunohistochemistry), reverse genetics (e.g. CRISPR-Cas9), embryology (e.g. descriptive morphology, cell-lineage tracing and tissue transplantation), genomics (e.g. RNA-seq and ChIP-seq), and advanced microscopy (confocal and electron microscopy, and live-cell imaging). Research and teaching assistantships are available.

Start dates are flexible.

Requirements: Bachelor's degree in biology or related field. The ideal candidate will have a strong interest in evolutionary biology, and experiences in molecular biology, developmental biology, neurobiology, genomics/bioinformatics and/or microscopy techniques. Knowledge of invertebrate zoology is a plus but not required.

Please contact Nagayasu Nakanishi ([nnakanis@uark.edu](mailto:nnakanis@uark.edu)) before submitting a formal application to U of A Graduate Admission.

Nagayasu Nakanishi, Ph.D Assistant Professor Department of Biological Sciences University of Arkansas Fayetteville, AR 72701 479-575-2031 (office) 479-575-7393 (lab) [nnakanis@uark.edu](mailto:nnakanis@uark.edu) <https://wordpressua.uark.edu/nakanishi-lab/> [nnakanis@uark.edu](mailto:nnakanis@uark.edu)

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## UBern GrasslandBiodiversity

1 PhD position for conservation biologist/restoration ecologist at the University of Bern, Switzerland.

Restoring grassland biodiversity: from degraded, species-poor to integral stable-state ecosystems

There have been rapid changes in land-use in the past decades in mountain agro-ecosystems, and they are still ongoing. Where land is accessible to farming machinery, grassland management has been massively intensified, causing a dramatic collapse of biodiversity. This project will experimentally investigate - full-block design with random allocation of treatment to field - the resilience of grassland to a relaxation of management intensity, i.e. how they progressively return to biodiversity-richer stable states. More specifically, we shall compare the biodiversity resilience of intensified grasslands situated in landscapes dominated either by high-intensity grasslands or by low-intensity grasslands. In particular, we expect the former to be much more difficult to restore than the latter and will look for tipping points that may guide future restoration projects.

The PhD candidate will collect baseline data (before interventions) and monitor subsequent biotic and abiotic environmental changes (following experimental manipulation) using a series of biodiversity metrics such as plant and invertebrate species richness, diversity indices, functional traits, community composition, in parallel to agricultural output metrics such as hay productivity and quality. The reliance on a full block design will enable avoiding the caveats and biases typically encountered in mere observational studies, notably those caused by unavoidable confounding environmental factors such as landscape naturalness. The ultimate objective of this research is to provide end-users, notably farmers and authorities, with easily implementable, evidence-based recommendations for future grassland restoration strategies that maximize the return on investment of the agricultural subsidies targeting biodiversity. The experiment will start in 2019 and is foreseen to run 3-7 years, with the PhD candidate engaged in its first phase.

The candidate must hold a MSc degree, show a strong interest in agro-ecology and master modern analytical techniques and statistical software. Knowledge of grassland indicator taxa would be advantageous though not prerequisite. English literacy is important, while knowledge of German and French would represent a real asset,

notably for dealing with farmers.

Start: January or February 2019; duration: 3 years. Salary according to SNSF rules. Note that the PhD student will be hosted in Sion during the field season (May to August) and that a driving licence is compulsory. Email your letter of motivation with CV, list of publications, summary of MSc thesis, as well as two references (name, institutional address, email and phone number) to [jean-yves.humbert@iee.unibe.ch](mailto:jean-yves.humbert@iee.unibe.ch).

Application deadline: 14 November 2018. Interviews in Bern on 30 November 2018.

PD Dr Jean-Yves Humbert University of Bern

Institute of Ecology and Evolution

Office: Erlachstrasse 9a Trakt 2

Mail: Baltzerstrasse 6, CH-3012 Bern Tel. +41 31 631 31 73

[jean-yves.humbert@iee.unibe.ch](mailto:jean-yves.humbert@iee.unibe.ch)

[http://www.cb.iee.unibe.ch/about\\_us/-pd\\_dr\\_humbert\\_jean\\_yves/index\\_eng.html](http://www.cb.iee.unibe.ch/about_us/-pd_dr_humbert_jean_yves/index_eng.html)

“[jean-yves.humbert@iee.unibe.ch](mailto:jean-yves.humbert@iee.unibe.ch)”

<[jean-yves.humbert@iee.unibe.ch](mailto:jean-yves.humbert@iee.unibe.ch)>

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## UCalgary ExptlMicrobialEvolution

Jeremy Fox and Peter Dunfield have a joint opening for an MSc student starting in Sept. 2019 to work on experimental evolution of facultative methanotrophy in microbes. Most bacterial species are either obligate methanotrophs, or cannot use methane as a C source at all, suggest a strong evolutionary trade-off between methanotrophy and use of other C sources. The existence of facultative methanotrophs thus represents an evolutionary puzzle.

The Fox lab pursues fundamental research in ecology and evolution, using microbial microcosms as model systems.— The Dunfield lab has discovered several new methanotrophic species and developed culture protocols for methanotrophs, and whole genome sequences are now available. This provides the foundation for long-term experimental evolution of methanotrophs in controlled environments with different C sources, to test for the hypothesized trade-off and identify conditions under which facultative methanotrophy would be favored by selection.

Guaranteed financial support (minimum \$23,000

CAD/year) is available, in addition to financial support for research, conference travel, etc.

The ideal candidate will have some experience with standard microbiological and/or genetic techniques, and an interest in evolutionary questions. All interested candidates will be considered.

The University of Calgary is one of Canada's leading research universities. Calgary is a safe, vibrant city of over 1 million people, located close to the Canadian Rockies with all the opportunities for recreation that implies. The Dept. of Biological Sciences (<http://bio.ucalgary.ca>) is the largest department on campus, comprising over 50 faculty and 190 graduate students.

Interested students should contact Jeremy Fox ([jefox@ucalgary.ca](mailto:jefox@ucalgary.ca)) and Peter Dunfield ([pfdunfie@ucalgary.ca](mailto:pfdunfie@ucalgary.ca)), including a cv, transcript (unofficial is fine), and contact details for at least two references.

Jeremy Fox

Professor

University of Calgary

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<https://www.avg.com>

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## UCalifornia Berkeley CelegansEvolution

Potential graduate students are welcome to apply to the lab of Michael Shapira in UC Berkeley's department of Integrative Biology (<https://ib.berkeley.edu/labs/shapira/>).

We have recently established *C. elegans* as a new model for studying Host-Microbiota Interactions and we are interested (not exclusively) in using it to characterize factors that shape microbiota composition, microbiota contributions to host evolution, and host-microbiota dynamics during aging. Motivated students with solid background in Biology and interest in the interface between evolution biology and molecular genetics are welcome to apply.

Please contact Michael Shapira directly prior to the December application deadline: [mshapira@berkeley.edu](mailto:mshapira@berkeley.edu)

Michael Shapira UC Berkeley Department of Integrative Biology Valley Life Sciences Bldg room 5155A Berkeley, CA 94720-3140 (510) 643-2579

[mshapira@berkeley.edu](mailto:mshapira@berkeley.edu)

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## UCalifornia Davis HumGenomicsAfrica

A new graduate student (PhD) position is available in the Henn Lab at UC Davis in the Dept. of Anthropology and Genome Center. The Henn Lab specializes in human population genetics/genomics and human evolution. Much of our research involves field collection of samples from southern Africa, next-generation sequencing of human genomes and modeling evolution (both phenotype and history) in African populations. Visit us at <http://hennlab.ucdavis.edu/> We seek a graduate student to lead research projects related to African demographic history using next-generation sequence data. Computational training will be provided. Opportunities to participate in workshops, develop independent projects and travel will be available; we have many collaborators both in the US and internationally. UC Davis is an outstanding environment for both anthropology and genomics, with newly renovated Henn Lab office space for graduate students. Students can apply through either the Department of Anthropology or the Integrative Genetics and Genomics Graduate Program. Funding provide through a combination of TA-ships, research stipends and includes summer funding. Please contact Dr. Henn before applying to help ensure you apply to the right program and have the best chance of successful admission.

Brenna M. Henn

Associate Professor Department of Anthropology  
Genome Center Lab / Office: 207 / 211 Young Hall  
One Shields Ave. CA 95616 University of California  
(UC), Davis [hennlab.ucdavis.edu/](http://hennlab.ucdavis.edu/)

[bmhenn@ucdavis.edu](mailto:bmhenn@ucdavis.edu)

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## UCalifornia LA MicrobiomePopGenetics

Graduate student: UCLA.PopulationGenetics/Microbiome

Graduate student position at UCLA in population genetics/evolutionary dynamics of the microbiome A PhD

position starting in Fall 2019 is available in the lab of Dr. Nandita Garud in the Department of Ecology and Evolutionary Biology at the University of California, Los Angeles. We are broadly interested in understanding the evolutionary dynamics of natural populations with a current focus on the microbiome. The lab develops statistical and computational methods to gain insight into evolutionary processes from population genomic data.

Students will have substantial input in the specific nature of their research project. However, the project should broadly fit within the lab's goals of learning about adaptation in natural populations and evolutionary dynamics in the microbiome. As this is a computational lab, prior experience in programming in R, Perl, or Python, and shell scripting is preferred.

Additional information can be found at: <http://garud.eeb.ucla.edu> The Ecology and Evolutionary Biology department at UCLA offers a cutting-edge research environment with many opportunities for collaboration. The lab will have affiliations with the Microbiome Center at UCLA and the Institute for Quantitative and Computational Biology at UCLA.

Interested candidates should apply to the EEB program at UCLA by December 1 and specify Nandita Garud as a Prospective Faculty Advisor ([https://www.eeb.ucla.edu/grad\\_onlineappl.php](https://www.eeb.ucla.edu/grad_onlineappl.php)). Direct inquiries are also welcome at [nandita.garud@gmail.com](mailto:nandita.garud@gmail.com).

Nandita Garud <[nandita.garud@gmail.com](mailto:nandita.garud@gmail.com)>

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## UCalifornia SantaBarbara PlantEvolutionaryEcol

The Mazer lab in the Department of Ecology, Evolution and Marine Biology at the University of California, Santa Barbara is recruiting one or two highly motivated PhD students to conduct collaborative and independent research to investigate the process and outcome of adaptive evolution within and among populations of the annual forb, *Nemophila menziesii* (Baby Blue Eyes, Boraginaceae). We are particularly interested in the evolution of fitness-related traits such as seed mass, germination time, flowering time, flower size, and integrated water use efficiency. We particularly welcome students experienced with field biology, the measurement of natural selection on reproductive traits, and quantitative evolutionary

genetics.

Incoming students will participate in (and earn funding from) a recently funded NSF grant ("Evolutionary adaptation to intensifying drought across a geographic gradient: a comprehensive evaluation of Fisher's Fundamental Theorem", with Dr. Amber Nashoba and Dr. Ruth Shaw) in which we are using quantitative genetic methods to test predictions derived from Fisher's Fundamental Theorem in wild populations of *N. menziesii* distributed across an aridity gradient in California.

Incoming students will also be invited to conduct independent research of their own design that extends beyond the scope of the research supported by this grant. Promising areas of research include (but are not restricted to):

- (a) the ecological and evolutionary significance of variation within and among populations in prospective fitness-related traits such as flowering time, flower size, herkogamy and dichogamy, pollen performance, seed size, and sex allocation;
- (b) pre- and post-pollination sexual selection on primary and secondary sexual traits;
- (c) the functional significance of variation in floral and vegetative pigments, including UV reflectance/absorption;
- (d) the evolution of phenotypic plasticity in life history and morphological traits; and
- (e) the causes and consequences of variation in water use efficiency across an aridity gradient.

Funding packages offered to highly competitive candidates will include a combination of Graduate Research assistantships, Teaching Assistantships, Block Grants, and UCSB-funded graduate fellowships. Students who have already earned a Master's degree in Botany or Plant Ecology or who have applied for a NSF Graduate Research Fellowship are particularly welcome. UCSB and EEMB strongly encourage and welcome applicants who contribute to the diversity of the student community.

Prospective students interested in exploring this opportunity may write directly to: Professor Susan Mazer ([sjmazer@ucsb.edu](mailto:sjmazer@ucsb.edu)). More detail about the Mazer lab can be found at: [labs.eemb.ucsb.edu/mazer/susan](http://labs.eemb.ucsb.edu/mazer/susan) Graduate students may apply electronically to UCSB's Graduate Division via the following URL: <https://www.graddiv.ucsb.edu/eapp/Login.aspx> Susan Mazer President, California Botanical Society Director, California Phenology Project Professor of Ecology & Evolutionary Biology Department of Ecology, Evolution &

Marine Biology University of California, Santa Barbara  
Santa Barbara, CA 93106

cell: 805-729-3980 office: 805-893-8011 FAX: 805-893-2266 mazer@lifesci.ucsb.edu

website: <https://labs.eemb.ucsb.edu/mazer/susan/> Susan Mazer <sjmazer@ucsb.edu>

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## UCentralFlorida AvianGenomicsConservation

University of Central Florida, Department of Biology  
PhD position in Avian Evolutionary and Conservation Genomics

Inquiry deadline: November 30, 2018

Application deadline: January 15, 2019

The Hoffman and Savage labs invite applications for a joint PhD position working on a funded project focused on genomics and conservation of endangered Florida scrub jays.

Starting date: August 2019

Duration: 4-6 years

Compensation: Graduate Teaching Assistantship (GTA) stipend during Fall and Spring semesters; Graduate Research Assistantship (GRA) stipend for at least the first two summers.

Project Overview:

Construction and other causes of habitat loss have led to destruction and fragmentation of suitable habitat for *Aphelocoma coerulescens*, the Florida scrub-jay (FSJ). In the past, translocation has been used as a management strategy for mitigating negative impacts to many wildlife populations, including FSJ populations. However, translocation may not be the ideal solution given that translocation itself can have negative impacts, particularly for FSJs which exhibit complex social behavior that may cause difficulty in surviving and reproducing at the site of translocation. An alternative approach could be to passively manage FSJs following habitat loss, assess whether they relocate on their own, and if so, determine whether their survival and reproduction is based on genomic compatibility with resident birds. We are conducting a systematic analysis of the benefits of these two strategies - passive management versus active translocation - by conducting four years of monitoring and banding FSJs and collecting a variety of samples

for genetic, genomic, immunity, and health assessments. Ultimately, we will incorporate functional and population genomics, measures of immunity and disease, and survival/recruitment parameters to integrate structured decision making (SDM) to assess the long-term feasibility of passive compared to active translocation when FSJs suffer habitat loss.

Dissertation topics and required skills:

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

Inquiries should be directed to Anna Savage ([anna.savage@ucf.edu](mailto:anna.savage@ucf.edu)) and Eric Hoffman ([eric.hoffman@ucf.edu](mailto:eric.hoffman@ucf.edu)) by November, 2018.

The link below provides instructions on how to apply to the UCF Biology PhD program.

<https://sciences.ucf.edu/biology/graduate-program/-phd-program/> Eric Hoffman

Associate Professor and

Undergraduate Program Coordinator

UCF Department of Biology

Eric Hoffman <[Eric.Hoffman@ucf.edu](mailto:Eric.Hoffman@ucf.edu)>

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## UCollege London HumanNutrientVariation

Discovery and interpretation of human genomic variation contributing to micronutrient deficiency disorders

We are seeking a PhD student to work in a genomic medicine project in Dr. Castellano's group using population approaches. The aim of the project is to understand the genetic architecture of micronutrient deficiencies. That is, to characterize the number, age and type of



genetic variants, their population frequencies and the magnitude of their contribution to the risk of micronutrient deficiency or toxicity in humans today. Such deficiencies have been pervasive in human history and may have resulted in old and common genetic variants contributing to disease risk.

Please, see the ad for details.

Informal inquiries can be sent to Sergi Castellano (google scholar) at [s.castellano@ucl.ac.uk](mailto:s.castellano@ucl.ac.uk).

– Sergi Castellano University College London (UCL) Genetics and Genomic Medicine Programme UCL Great Ormond Street Institute of Child Health UCL Genomics 30 Guilford Street London, WC1N 1EH, UK Tel: +44 (0) 207 905 2108 SelenoDB database Scholarly works

“Castellano Hereza, Sergi” <[s.castellano@ucl.ac.uk](mailto:s.castellano@ucl.ac.uk)>

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## UColorado Denver EcolEvolution

The graduate program in Integrative Biology at the University of Colorado, Denver is currently recruiting PhD and Masters students for Fall, 2019. The program takes a multidisciplinary training approach, with departmental strengths in behavioral, spatial, and microbial ecology, evolutionary and comparative genomics, and developmental biology. The following labs are actively recruiting in evolutionary and ecological disciplines, though opportunities may be available across the department.

Brian Buma - The Buma lab is interested in ecosystem change from local to global scales. We study how disturbances and climate change (think wildfire, wind, and snow loss) impacts ecosystem resilience, composition, functioning, and distributions. Current work runs from the boreal forest of northern Alaska through the high mountains of Colorado to southern Chile, and focuses on carbon cycling, species distributions, and conservation questions. Methods include both field and lab work, and then scaling those findings to broader scales via statistical modeling and remote sensing/GIS. Website: [www.brianbuma.com](http://www.brianbuma.com) . Mike Greene - My research group studies the mechanisms behind the collective-organization of ant societies. The ant colony is a distributed system and thus we are interested in the mechanisms by which individual ants make behavioral decisions, such as to fight an opponent, and how the many decisions by worker ants lead to the emergence of changes in colony behavior, such as distributing foragers

to a preferred food source. We study brain mechanisms including the roles of monoamine neurotransmitters in affecting decisions, the roles of chemical cues used to communicate information, and the patterns by which workers behavior. Our main system is the collective-organization of pavement ant (*Tetramorium caespitum*) wars between neighboring colonies.

<http://www.ucdenver.edu/academics/colleges/-CLAS/Departments/biology/AboutUs/ContactUs/-DepartmentDirectory/Pages/MichaelGreene.aspx>

Chris Miller - We develop and use sequencing-based and computational approaches to study microbial communities, with an emphasis on the microbial ecology of methane-emitting freshwater wetlands and the genomic diversity and evolution of archaea. For more information, visit <http://microbial.systems> . Greg Ragland - We study the genetic mechanisms controlling complex trait adaptation and speciation, evolution of climatic adaptation, and mechanisms of growth arrest during dormancy. We address questions in these areas using various approaches including, e.g., GWAS, quantitative transcriptomics, metabolic physiology, and functional genomics. See: <https://raglandlab.wordpress.com>

Timberley Roane - We study the role of microorganisms in ecosystem health. We are particularly interested in the roles and responses of microorganisms to naturally-occurring physicochemical features as well as to disturbances, such as those introduced by mining and use of toxic chemicals. Our work involves a combination of field-based and laboratory-based experimentation using aspects of engineering, analytical chemistry, traditional microbiological methods, and genetic elucidation of microbial populations and mixed communities. We strive to address questions about the importance of microorganisms in their natural habitats. See: <https://roanemicrobiology.weebly.com/> .

John Swallow - Our lab is primarily investigating sexual selection and the impact that this process has on the evolution of exaggerated morphological ornaments and the expression of behaviors. Current projects involve investigating the neurochemical role of monoamines in modulating aggressive interactions and mating behaviors in a variety of insect models including stalk-eyed flies, ants, and crickets. - [https://clas.ucdenver.edu/directory/-faculty-staff/john.g.\\_swallow](https://clas.ucdenver.edu/directory/-faculty-staff/john.g._swallow)

Mike Wunder - I study animal population biology with a special interest in migratory systems. Migratory systems are useful models because conditions experienced at one place and time influence dynamics observed in distant locations; these are systems that link the biology and health of continents. My long-term goal is to understand factors regulating population demography and geographic range distributions, so that we can predict responses to

disease epidemics and changes in climate, environmental health, and human land use. I combine fieldwork, lab work and modeling to study these systems and have developed novel statistical tools for determining dietary and geographic histories

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## UEdinburgh HostParasiteInteractions

PhD available at the University of Edinburgh, UK: The evolutionary ecology of disease transmission: how are vector control programmes changing parasite life histories? In the lab of Sarah Reece. <http://www.reecelab.science> Application instructions are here: <https://www.findaphd.com/search/ProjectDetails.aspx?PJID1553> Project Description Parasites live in inside the bodies of others, with whom they are engaged in a life-and-death struggle. The Reece lab uncovers the strategies parasites have evolved to cope with the challenges and opportunities of their lifestyle by asking 'what makes a successful parasite and what are the evolutionary limits to their success?'. Specifically, we investigate how parasites maximise "survival" and "reproduction". These fitness components underpin the symptoms and transmission of diseases.

Most disease research focuses on interactions between parasites and their hosts. Analogous studies of interactions between parasites and vectors have been largely neglected, despite the fact that vectors are responsible for spreading disease. Clearly, to fully understand the evolution of vector-born parasites it is necessary to ask how they solve the challenges of living in hosts and in vectors. This is especially important for malaria parasites whose vectors are changing in response to vector-control programs (e.g., bed nets, insecticides). Whilst the evolutionary responses of malaria-transmitting mosquitoes to vector-control are being monitored, the knock-on consequences for parasite evolution have been overlooked. Just like drugs or vaccines administered to hosts, vector-control represents an ecological perturbation aimed at reducing parasite fitness. History clearly illustrates that attempts to reduce the survival and/or transmission of malaria parasites is usually met with counter-evolution

(e.g., drug resistance mutations and phenotypic tolerance). Parasite counter evolution to vector-control may be constrained or facilitated, depending on the amount of genetic variation and plasticity underpinning parasite phenotypes. Anticipating parasite evolution will inform monitoring strategies for current control programs as well as uncovering novel new vector-control strategies.

Malaria is transmitted by Anopheline mosquitoes and their control centres on long-lasting insecticide treated bed nets and indoor residual spraying. Insecticides are implicated in causing: the evolution of resistance mutations to target sites and detoxification mechanisms, shifts in feeding schedule and location, altered host preference, changes in the relative importance of different mosquito species as vectors, and shorter lifespan. Predicting how parasites will respond to such changes in vector populations requires knowledge of: (a) The impacts of interventions on parasites directly (e.g. do insecticides kill parasites?). (b) How parasite fitness is affected by changes in vector genotypes and phenotypes (e.g. insecticide resistance, biting time-of-day, lifespan, vector species). (c) How much plasticity and genetic variation exist in parasite populations for heritable traits, including fitness, that are affected by vector-control. (d) Whether parasite traits affected by vector-control are governed by trade-offs or co-variances that affect responses to selection.

This PhD will open the black box of what life inside mosquito vectors is like and develop a novel field by revealing the genetic and environmental drivers of parasite transmission to, and from, the vector. This project will use malaria parasites of rodents and mosquitoes to integrate developments from different biological disciplines into an evolutionary framework. Malaria parasites are an ideal model system because well-controlled laboratory experiments that perturb the environments parasites experience within mosquito vectors can easily be carried out. The experiments will reveal the genetic and environmental drivers of parasite transmission to, and from, the vector.

The PhD student will be joining a well-resourced lab with a technician, graduate research assistant and lab manager, 3 other PhD students, and 3 postdocs. Thus, the student will receive considerable intellectual and practical support to develop their research project. Our work to date suggests there are multiple novel and tractable directions for this PhD project to take and the student will be encouraged to decide which lines of enquiry to follow and to develop their own interests during the PhD.

Funding Notes This opportunity is only open to UK nationals (or EU students who have been resident in the

UK for 3+ years immediately prior to the programme start date) due to restrictions imposed by the funding body. If you would like us to consider you for one of our scholarships you must apply by 12 noon on 9 November 2018 at the latest.

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## UEdinburgh PopulationGenomics

PhD studentship in population genomics at Roslin Institute (University of Edinburgh, UK)

Nile tilapia (*Oreochromis niloticus*) is one of the most important farmed food fish in the developing world. Selective breeding of tilapia is a key component of sustainable production, contributing to improvements in fish growth and resilience. However, the consequences of selective breeding on the genetic makeup of the farmed tilapia strains is unknown. This project aims to use modern genomics tools to identify “signatures” (specific regions of the genome) associated with both selective breeding and adaptation to particular farmed environments. Knowledge of these key genomic regions will help inform future tilapia breeding and ultimately contribute to increased tilapia production.

To achieve this aim, whole-genome sequences of farmed tilapia from several tropical countries will be used to identify selection signatures. Comparisons of these signatures between populations will allow separation of the consequences of selection for fast growth from those associated with fish adapting to particular environments. Identification of environment-specific genomic signatures, and subsequently genes and functions associated with these, will reveal functional changes specific to adaptation to the particular environments in which these fish are kept. These genomic regions and functional elements can be utilised for genetic improvement to optimise tilapia production. This project involves a collaboration between the Roslin Institute (University of Edinburgh), the University of Aberdeen and WorldFish, an international, non-profit research organization that works to reduce hunger and poverty across the world by improving fisheries and aquaculture. The project will provide an exciting opportunity for a keen student to

receive training in cutting-edge genetics and genomics techniques at a world-class research institute while also contributing to improvement of food security in the developing world.

**Training:** The studentship will provide extensive training in transferable skills and techniques in quantitative and population genetics, statistics, bioinformatics and genomic analysis, including analysis of whole genome sequence data. The University of Edinburgh offers a number of valuable taught courses that may benefit the student. The student will also attend a variety of seminars, journal clubs and local meetings and there will be opportunities for attendance at national and international conferences.

**Eligibility:** All candidates should have or expect to have a minimum of an appropriate upper 2nd class degree in a related field and possess strong computational/quantitative skills. To qualify for full funding, students must be UK or EU citizens who have been resident in the UK for 3 years prior to commencement.

For further information and to apply, see <https://www.ed.ac.uk/roslin/postgraduate/studentships/using-genomics-to-decipher-selection-and-environmental-adaptation-in-an-aquaculture-species> or contact [pam.wiener@roslin.ed.ac.uk](mailto:pam.wiener@roslin.ed.ac.uk).

Pam Wiener The Roslin Institute and Royal (Dick) School of Veterinary Studies University of Edinburgh Easter Bush, Midlothian EH25 9RG, UK

phone: 44 (0) 131 651 9248 email: [pam.wiener@roslin.ed.ac.uk](mailto:pam.wiener@roslin.ed.ac.uk) — “The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336

WIENER Pam <[pam.wiener@roslin.ed.ac.uk](mailto:pam.wiener@roslin.ed.ac.uk)>

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## UFlorida SexualSelection

I am looking to recruit a graduate student for Fall 2019 to work on topics related to behavioral ecology and evolution.

Research in my lab primarily focuses on sexual selection in insects, examining the evolutionary interplay of behavior and morphology. We have found that the leaf-footed bugs, Family Coreidae, are excellent experimental subjects for our investigations. These insects wrestle with their hind legs over territories and have an amazing diversity of hind leg shapes. Ongoing projects in the

lab include studies of trade-offs between weapons and testes; the effect of nutrition and social environments on weapon structure, testes size, and male fighting behavior; the factors influencing mate choice; and the role of phenotypic plasticity in the processes of invasion. We are currently reconstructing a phylogeny of the Coreidae to next test hypotheses of weapon shape evolution.

The successful applicant for this position will conduct at least one experimental lab-based project at the University of Florida. Additional projects are flexible and can include international field work at a location such as the Smithsonian Tropical Research Institute in Panama. Prospective students are encouraged to email Christine W. Miller at [cwmiller@ufl.edu](mailto:cwmiller@ufl.edu) by November 8th (later inquiries might also be considered). Include in your email a statement including 1) the kinds of research questions that you would like to pursue, 2) how these fit in with current lab research, 3) a brief overview of your previous academic and research experiences, 4) CV or resume, 5) GRE scores (if you have them), 6) an unofficial transcript, and 7) whether you are seeking a M.S. or Ph.D. at this time. For more information on this position and the research group, please visit [www.millerlab.net](http://www.millerlab.net). Accepted students will be provided a tuition waiver and a competitive stipend.

Information about Gainesville, Florida:

Situated in the rolling countryside of north central Florida, Gainesville, is close to world-class fishing, snorkeling, canoeing, tubing and kayaking. On land, those so inclined may enjoy birding, hiking, biking, fishing and pretty much everything else under the sun. Home of the University of Florida, seat of Alachua County's government and the region's commercial hub, Gainesville is progressive, environmentally conscious and culturally diverse. The presence of many students and faculty from abroad among its 99,000-plus population adds a strong cross-cultural flavor to its historic small-town Southern roots. Its natural environment, temperate climate and civic amenities make Gainesville a beautiful, pleasant, and interesting place in which to learn and to live.

Christine W. Miller Associate Professor | Entomology & Nematology Department University of Florida, USA  
email: [cwmiller@ufl.edu](mailto:cwmiller@ufl.edu) phone: (352) 273-3917 web: [www.MillerLab.net](http://www.MillerLab.net) facebook: @bugweapons

"Miller, Christine W." <[cwmiller@ufl.edu](mailto:cwmiller@ufl.edu)>

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## UFribourg InversionAdaptationGenomics

PhD position in Evolutionary Genomics of Adaptation at the University of Fribourg

A 4-yr PhD position in Evolutionary Genomics is available in the Flatt lab in the Department of Biology, University of Fribourg, Switzerland, to study the adaptive role of chromosomal inversions in fruit flies.

The PhD student will work on a project entitled "The Role of Chromosomal Inversions in Clinal Adaptation", recently funded by the SNSF (Swiss National Science Foundation) and embedded in a designated project team consisting of three postdocs and a technician and supported by several international collaborations.

Using an adaptive inversion polymorphism (a 'supergene') in *Drosophila* as an experimentally tractable model system, the aim of this project is to use genome sequencing, phenotypic assays, population cage experiments in the lab and field, population genetic modeling, genetic mapping (deficiency complementation mapping) and genome engineering (CRISPR/Cas9) to address how selection acts on inversions: (1) What are the genetic loci, i.e. the targets of selection, contained within the inversion? (2) How does the inversion and the candidate loci contained in it affect fitness-related traits? (3) What form of balancing selection (e.g., overdominance, frequency-dependent selection) maintains this adaptive inversion polymorphism?

The Department of Biology at the University of Fribourg is a highly dynamic, international and interdisciplinary environment, spanning a wide range of research in evolution and ecology, population genomics, and bioinformatics, developmental genetics, neurobiology, biochemistry and proteomics, across 27 groups (<https://www3.unifr.ch/bio/en/>). Research in our group is focused on understanding the genetic underpinnings of life-history adaptations, trade-offs between fitness traits, and the evolution of aging; for more information on our lab see: <https://www3.unifr.ch/bio/en/groups/flatt/> Candidates must be highly motivated and driven, have excellent oral and written communication skills, be able to work independently as well as in a team, and have a solid background or a strong interest in evolutionary genetics and a good working knowledge of statistics. Prior experience with *Drosophila* genetics and/or analyzing

next-generation sequencing data and/or population genetic modeling would be a plus. The working language is English.

The starting date is flexible; the earliest start of the position would be January/February 2019. A master's degree (or equivalent) is required to apply. The salary follows the doctoral salary rates set by the SNSF.

Please submit your application via email by 30 November 2018 to Prof. Thomas Flatt: [thomas.flatt@unifr.ch](mailto:thomas.flatt@unifr.ch)

Applicants must submit a single merged PDF file that includes a letter of motivation, a CV, names and contact details of two referees who should send their recommendation letter separately by email, and copies of their publications and/or their MSc thesis.

[thomas.flatt@unifr.ch](mailto:thomas.flatt@unifr.ch)

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## UGeneva AncientHumanDNA

New PhD position available at the University of Geneva

A PhD position in computational paleogenomics is available at the Laboratory of Anthropology, Genetics and Peopling history (AGP lab) of the University of Geneva (Switzerland). This PhD will be under the supervision of Dr Mathias Currat (<http://ua.unige.ch/en/personne/-mathiascurrat/>). The project will consist in the analysis of ancient human genomic data using an original computational simulation methods. The main aim is to investigate the evolution of European populations during Prehistory. We are seeking a highly motivated person with a strong interest in human evolution, population genomics, computer tools and anthropology in general. The successful candidate will belong to an interdisciplinary research group, which is part of an international network of research including leading ancient DNA geneticists, population geneticists, archaeologists and physical anthropologists from institutions across the world.

Requirements: Master degree in biology or equivalent; Skills in population genetics, biostatistics, bioinformatics and English; Skills in modelling and programming are an asset; Collaboration and communication abilities.

Terms of employment: Duration: 4 years, provided that the first year is successful (trial period); Start: the position is available from 1st February 2019. Salary: SNSF salary scale for a candoc. Other conditions: The PhD student will participate to the teaching and other activities of the AGP Lab.

About the AGP lab The AGP lab is part of the Anthropology Unit of the Department of Genetics and Evolution at the University of Geneva, Switzerland. It offers a very stimulating scientific environment with several independent groups of research, international collaborations and excellent computer resources. The Anthropology Unit is located in the Science campus in the heart of the city of Geneva. Both English and French are the working languages in the Lab. More details about the Anthropology Unit may be found at <http://ua.unige.ch/en/> How to apply Applications should be sent as a single pdf file by email to Dr Mathias Currat ([mathias.currat@unige.ch](mailto:mathias.currat@unige.ch)) by November 15, 2018. It should include a cover letter, a detailed CV, at least two letters of recommendation, copies of secondary and university diplomas, and an attestation of B1 competency level (Common European Framework of Reference for Languages) in the English language.

Mathias Currat <[Mathias.Currat@unige.ch](mailto:Mathias.Currat@unige.ch)>

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## UGeorgia BioinformaticsFellowship

Dear Colleagues

The Institute of Bioinformatics at the University of Georgia (UGA) invites applications for multiple Institute of Bioinformatics Fellowships to support Ph.D. training in Bioinformatics. Candidates are expected to have demonstrated proficiency (e.g. certificate, major or minor) in one or more of the quantitative disciplines that serve as a foundation for bioinformatics research, including mathematical, computational, and physical sciences and engineering.

Successful applicants will receive a stipend of \$32,000 for each of three years with follow-on support from teaching or research assistantships for the remainder of the PhD. Both domestic and international students are encouraged to apply and are eligible for funding. For full consideration, please apply directly to the University of Georgia Graduate School at <http://www.applyweb.com/-apply.ugagrad>. Select PHD\_BINF as the major code in the application process. Direct inquiries to [iobadmit@uga.edu](mailto:iobadmit@uga.edu). The deadline for consideration is December 01, 2018. Semi-finalists will have an on-site interview in Spring 2019.

The mission of the Institute of Bioinformatics (IOB) is to train graduate students in cutting-edge bioinformatics research and its applications. Our goal is for students to attain mastery and leadership in this new

interdisciplinary field. IOB strengths include the integration of wet laboratory approaches with cutting-edge computational approaches. More information about the Institute and our graduates is available at: <http://iob.uga.edu>. The University of Georgia is an Equal Opportunity/Affirmative Action Institution. All qualified persons will be considered without regard to race, color, religion, sex, national origin, disability, gender identity, sexual orientation or protected veteran status.

Best regards,

Casey Bergman, Ph.D. Department of Genetics & Institute of Bioinformatics University of Georgia A128A Davison Life Sciences Building 120 E. Green St. Athens, GA 30602

Tel: +1-706-542-1764 Lab: +1-706-583-8192 Fax: +1-706-542-3910

Email: [cbergman@uga.edu](mailto:cbergman@uga.edu) Web: <http://bergman-lab.org/> Casey Bergman <[cbergman@uga.edu](mailto:cbergman@uga.edu)>

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## UGuelph PlantEvolution

Graduate student positions in plant evolutionary ecology at the University of Guelph

I am looking for graduate students (MS or PhD) interested in studying (1) the evolution and maintenance of gynodioecy (a breeding system where female and hermaphroditic plants coexist) or (2) the effect of pollinator declines on floral evolution in native wildflowers.

For more information on these projects and my lab, check out:

[www.christinamariecaruso.com](http://www.christinamariecaruso.com) Students will have considerable freedom to develop their projects, and could start in either Fall 2019 or Winter 2020.

Interested candidates should email me at [carusoc@uoguelph.ca](mailto:carusoc@uoguelph.ca). Please include a statement of interest, CV, and transcript (unofficial is fine). Because of funding restrictions, preference will be given to candidates who are Canadian citizens or landed immigrants.

Christina M. (Chris) Caruso Associate Professor

Department of Integrative Biology

University of Guelph

Guelph, Ontario N1G 2W1 Canada

Christina Caruso <[carusoc@uoguelph.ca](mailto:carusoc@uoguelph.ca)>

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## Uillinois EvolutionaryBiology

The Department of Animal Biology at the University of Illinois is accepting applications for graduate students for admission in Fall 2019. We accept applications for both the Master's (M.S.) and Doctor of Philosophy (Ph.D.) degrees. We are an interactive group with expertise in ecology, evolution, behavior, bioinformatics, conservation, genetics & genomics, physiology, neuroscience, endocrinology, and morphology. Students take many approaches to their studies including field work on whole organisms, genomics/bioinformatics, lab experimentation, and theory. The University of Illinois at Urbana-Champaign also offers state-of-the-art research facilities in imaging, genomics, and engineering. Urbana-Champaign is a pleasant, affordable, university town with good music and restaurants. It has its own airport and is close to three major U.S. cities (Chicago, Indianapolis, St. Louis).

Students for the Ph.D. are typically funded for 5-years with a combination of fellowships, research assistantships, and teaching assistantships. The deadline for consideration for fellowship support is December 15, 2018. We will consider students for admission and teaching assistantships until January 1, 2019. For further information, see [http://www.life.illinois.edu/animalbiology/graduate\\_program.htm](http://www.life.illinois.edu/animalbiology/graduate_program.htm) The following faculty are actively recruiting students:

Philip Anderson - Comparative evolutionary biomechanics in both vertebrates and invertebrates. Current areas of specific interest include: examining the evolution of biological cutting/puncture systems; biomechanical and morphological diversification in deep-time; evolution of multi-part biomechanical systems.

Alison Bell - Individual variation; animal personality and behavioral syndromes; neurogenomics; transgenerational plasticity; evolution of behavior. We primarily study threespined stickleback fish.

Carla Caceres - Population, community and evolutionary ecology; life-history evolution; ecology of infectious disease; limnology.

Julian Catchen - Evolution of the genome; computational biology and population genomics; identifying large structural variation in populations of threespine stickleback; investigating the evolution of the notothenioid (Antarctic fishes) genome by examining the adaptive ra-

diation of five notothenioid species. RADseq, assembly, and genetic mapping analytical method development.

Chris Cheng - Molecular evolution of fish antifreeze protein genes, particularly evolutionary origins and molecular mechanisms of new gene genesis; temporal relationship between evolution of antifreeze function and paleobiogeography of polar regions; evolution of the marine species flock of Antarctic Notothenioid fishes; molecular cytogenetics of Antarctic notothenioids and northern cod fishes. Field research in Antarctica and the Arctic.

Becky Fuller - Evolutionary biology of fishes; evolution of color patterns/color vision; speciation as a function of adaptation to salinity and genomic rearrangements; speciation in darters and killifish

Mark Hauber - Ecology and evolution in birds; brood parasitism; comparative chemistry of egg shell pigmentation, acoustic and visual recognition systems in birds, neuro-ethology and -genomics, seabird conservation

Ken Paige - Plant-animal interaction with an emphasis on understanding the phenomenon of overcompensation from ecological, physiological, genetic and evolutionary perspectives; conservation biology; evolutionary ecology.

Charles Roseman - Evolutionary quantitative genetics, evo-devo, evolution of the g-matrix with emphasis on how small changes in development alter developmental trajectories and adult phenotypes; mammals

Becky Fuller <fuller@life.illinois.edu>

## **UKansas DrosophilaGenetics**

The Drosophila research labs in the departments of Molecular Biosciences (MB) and Ecology and Evolutionary Biology (EEB) at the University of Kansas seek talented applicants for graduate admission to begin study in the Fall of 2019. Our strengths include evolutionary and quantitative genetics, behavior and development with labs working on specific projects including genetic conflict, mating behavior, the genetics of complex traits, the evolution of immunity and development.

Faculty members: - Justin Blumenstiel (genetic conflict, EEB, can take students through MB) - Jennifer Gleason (evolution and genetics of courtship behavior, EEB, can take students through MB) - Stuart Macdonald (genetics of complex traits, MB) - Rob Unckless (evolution of immunity and genetic conflict, MB, can take students

through EEB) - Jamie Walters (sex chromosome evolution and reproductive proteomics in lepidoptera, EEB) - Rob Ward (tissue growth and morphogenesis, MB)

Applicants to the EEB program (<https://eeb.ku.edu/prospective-students>) are admitted directly to work with a specific advisor while applicants to the MB program (<https://molecularbiosciences.ku.edu/graduate-program-faqs>) complete a rotation cycle before choosing a laboratory. Interested candidates should peruse the MB faculty website (<https://molecularbiosciences.ku.edu/faculty>) and the EEB faculty website (<https://eeb.ku.edu/faculty>) and contact the department or specific faculty members for more information.

Application materials can be found at:

Molecular Biosciences - <http://molecularbiosciences.ku.edu/admissions> Ecology and Evolutionary Biology - <https://eeb.ku.edu/how-apply> Note that neither program requires the GRE for admission.

Deadlines for Fall 2018 admission:

Molecular Biosciences - December 1, 2018 Ecology and Evolutionary Biology - December 1, 2018

EEB and MB are both diverse departments ranging from ecosystem ecology to biophysics with significant interaction within and between groups.

About KU:

The University of Kansas is located in Lawrence, KS, less than an hour from Kansas City. Lawrence, Kansas is a terrific place to live, with a vibrant downtown, fantastic restaurants, lively arts scene, and beautiful rural scenery. The KU campus is an exciting, beautiful, invigorating environment with highly active research faculty.

EEO Statement:

The University of Kansas prohibits discrimination on the basis of race, color, ethnicity, religion, sex, national origin, age, ancestry, disability status as a veteran, sexual orientation, marital status, parental status, gender identity, gender expression, and genetic information in the university's programs and activities. Retaliation is also prohibited by university policy. The following persons have been designated to handle inquiries regarding the nondiscrimination policies and are the Title IX coordinators for their respective campuses: Executive Director of the Office of Institutional Opportunity & Access, IOA@ku.edu, 1246 West Campus Road, Room 153A, Lawrence, KS 66045, 785-864-6414, 711 TTY (for the Lawrence, Edwards, Parsons, Yoder, and Topeka campuses); Director, Equal Opportunity Office, Mail

Stop 7004, 4330 Shawnee Mission Parkway, Fairway, KS 66205, 913-588-8011, 711 TTY (for the Wichita, Salina, and Kansas City, Kansas medical center campuses).

“Unckless, Robert L” <unckless@ku.edu>

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## UKonstanz PlanktonPhylogeneticDiversity

DAAD Graduate School Scholarship Programme

Call for applications for PhD scholarships integrated in the Research Training Group R3

Lake Constance, one of the best-studied lakes in the world, is perfectly suited for this, as the lake has been affected by a multitude of environmental stressors (e.g. eutrophication, climate change, neobiota) within the last century. Eutrophication, the stressor of main concern during the 1960s to 1980s, has been removed successfully, but its immediate and long-term consequences for the ecosystem, as well as the mechanisms inducing changes, are not well understood. Within the Research Training Group R3, a diverse group of doctoral researchers is investigating the response of community structure, biological interactions and carbon and nutrient flows to changing conditions in Lake Constance. More information can be found at <https://www.rtg-resilience.uni-konstanz.de> We invite international applicants to join the Research Training Group R3. PhD scholarships funded by the DAAD are available for the following two research topics:

1) Spatiotemporal patterns of resilience and reversibility in relation to functional, taxonomic and phylogenetic diversity in plankton populations This study will investigate changes in functional, taxonomic and phylogenetic diversity in relation to trophic changes through time and at different sites, using environmental DNA extracted from sediment cores spanning the last century. DNA will be extracted from sediment cores, amplified with specific assays and amplicons sequenced using high-throughput technology. By targeting highly variable markers, different species or genotypes of key plankton species can be tracked and their response to abiotic changes, as well as community turnovers, can be analyzed. For more information on this project contact Prof. Dr. Laura Epp, Junior Professor for Environmental Genomics in Aquatic Systems

2) Relative role of viruses for phytoplankton control This project will test the relative role of aquatic viruses

and zooplankton for controlling phytoplankton changes under different nutrient regimes and whether and how evolutionary changes modify coexistence and responses to shifts in the nutrient level. Using microcosm experiments in combination with modelling, we aim to study the importance of rapid evolutionary changes and eco-evolutionary dynamics for the resilience of consumer-resource systems to eutrophication as well as the consequences for the reversibility of the system during re-oligotrophication. For more information on this project contact Prof. Dr. Lutz Becks, Professor for Limnology - Aquatic Ecology and Evolution

The Research Training Group R3 - Resilience of Lake Ecosystems at the University of Konstanz studies the response of aquatic ecosystems, and their resilience and reversibility to changing abiotic and biotic conditions, using Lake Constance as model system.

For the first step of the application process, please send the following documents as single PDF file to Dr. Tina Romer, [tina.romer@uni-konstanz.de](mailto:tina.romer@uni-konstanz.de), coordinator of the Research Training Group R3 until 30 November 2018: - a one-page exposé of a potential PhD project fitting one of the two research topics. - a curriculum vitae - a motivation letter detailing how you will fit into the Research Training Group R3 - list of publications, if applicable - certificates of education - two letters of recommendation from faculty members of your home university (using the forms found under: <https://www.daad.de/medien/deutschland/stipendien/formulare/recommendation.pdf> or <https://www.daad.de/medien/deutschland/stipendien/formulare/recommendation.doc>)

Details on the DAAD Graduate School Scholarship Programme, the application procedure and eligibility criteria: <https://www.daad.de/hochschulen/programme-weltweit/promotionsprogramme/gssp/en/23570-graduate-school-scholarship-programme/> and <https://www.daad.de/medien/hochschulen/ww/pprogramme-gssp/gssp-2019-guideline-appliants.pdf>

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

Mail: [lutz.becks@uni-konstanz.de](mailto:lutz.becks@uni-konstanz.de) Phone: 07531 88 2828

Lutz Becks <[lutz.becks@uni-konstanz.de](mailto:lutz.becks@uni-konstanz.de)>



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## ULausanne 6 QuantitativeBiology

Fully funded PhD studentships in Quantitative Biology

The advent of large-throughput data is transforming life sciences into an increasingly quantitative discipline. The University of Lausanne is at the forefront of this revolution, with more and more quantitative research throughout the Faculty of Biology and Medicine, a dedicated department of Computational Biology, and interdisciplinary units such as the Center for Integrative Genomics. UNIL also hosts the headquarters of the Swiss Institute of Bioinformatics, to which many quantitative research groups are affiliated, and closely collaborates with EPFL on the same campus. Ideally situated along the lake of Geneva, near Lausanne's city center, UNIL brings together over 120 nationalities.

UNIL's Faculty of Biology and Medicine has launched a new doctoral program entitled 'Quantitative Biology'. Several research groups are recruiting PhD students, covering areas as diverse as synthetic biology, plant science, cancer genomics, microbiology, molecular biology, molecular evolution, neuroscience, biological imaging, and computational biology.

### Job information

Expected start date: 01.02.2019 or to be agreed  
 Contract length: The initial contract is for one year and is extendable to a total of 4-5 years. Activity rate: 80-100%  
 Workplace: University of Lausanne, Dorigny

### Your qualifications

We are accepting applications from talented and enthusiastic candidates who are interested in a dynamic, well-supported lab at a top research institution. Candidates need to finish a Master's degree in a relevant area before the start date of their doctoral studies.

We are looking for three main types of PhD students: \* Students with a life science degree, interested in working in an experimental lab, but with a high degree of motivation to learn the fundamentals of computational biology, and to develop quantitative skills to analyze data more effectively \* Students with a life science degree interested in working in a dry computational lab, keen to deepen their quantitative skills and broaden their horizon in terms of experimental and computational techniques \* Students with a non-biological background (e.g. computer science, maths, physics), who are highly

motivated to transition to Life Sciences

A high level of written and spoken English proficiency is required since most scientific activities are conducted in English.

What the position offers you

You will develop your research project while working in a world competitive, interdisciplinary and highly collaborative environment.

The PhD program in Quantitative Biology provides opportunities for professional training and acquisition of highly transferable skills. This is complemented by a wide range of activities (retreats, symposia, student life).

The position is fully funded. Salary and benefits are internationally highly competitive. Funding for consumables, computing, and to attend international conferences is widely available.

Informal inquiries

Prof. Christophe Dessimoz, Head of the UNIL Doctoral Program in Quantitative Biology program  
[christophe.dessimoz@unil.ch](mailto:christophe.dessimoz@unil.ch)

Your application

Please, send your full application in Word or PDF to

<https://career5.successfactors.eu/sfcareer/-jobreqcareer?jobId093&company=universitdP> by 15.11.2018.

Your application should include: \* Motivation letter (max. one page) \* Curriculum vitae including, if available, extracurricular activities, internships, publications, conferences, awards, software contributions, etc. \* Master's thesis summary (max. one page) \* The names and contact details of 2-3 referees

[c.dessimoz@ucl.ac.uk](mailto:c.dessimoz@ucl.ac.uk)

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## ULiverpool HostParasiteInteractions

### Project Description

The bumblebee *Bombus terrestris* has become a key ecological and evolutionary model of host parasite interactions. This bumblebee is commonly infected with a Trypanosomatid gut parasite, *Crithidia bombi*, which has dramatic effects on host fitness. Among the features of this interaction is a dramatic degree of specificity. That is, that some bumblebee genotypes are infected

with certain parasite genotypes, but not others. This specificity is the result of both host, parasite, and bacterial microbiota characteristics that are as yet poorly understood.

With the recent sequencing of both the host and parasite genomes, and the advent of genome editing technologies that can be applied in the host, parasite, and microbiota, we are now in a position to tease apart the mechanisms that determine infection in a key ecological and evolutionary model system.

This project will target candidate genes in the parasite and the host and use CRISPR/Cas9 editing and RNA interference to assess their functional importance to disease outcome. The results of this work will have direct implications for key global issues, including protecting pollinators, which is crucial for food security, and insect-trypanosome interactions, many of which cause devastating human and livestock diseases.

The ideal student for this project would be one who wishes to apply their molecular biology skills to a novel model system to understand host-parasite interaction. This project will suit a student with interests in evolutionary ecology, microbiology, parasitology, genetics, or molecular biology. Existing skills in any of those areas would be helpful but independence, curiosity, a healthy sense of humor, and a certain amount of grit are usually more important.

The successful student will develop skills in evolutionary ecology, host-parasite interaction, immunology, molecular biology, genome editing, and genomics. These skills will be highly marketable both in industry and in academia. The Institute of Integrative Biology at the University of Liverpool and the Liverpool School of Tropical Medicine offer a vibrant and world-leading community of researchers to interact with, providing many opportunities for collaboration.

This project is looking for a student with good upper second or first class degree in biological or life sciences, biomedical, evolutionary biology, microbiology, molecular biology, parasitology, or other relevant fields. If interested please contact me by email if you have any questions about your suitability for the position To apply go to: <https://www.findaphd.com/search/ProjectDetails.aspx?PJID=101299> Seth Barribeau Lecturer: Eco-Immunology Evolution, Ecology and Behaviour Institute of Integrative Biology The University of Liverpool Crown Street Liverpool L69 7ZB Tel: 0151 795 8152 [www.seth.barribeau.com](http://www.seth.barribeau.com) "Barribeau, Seth" <Seth.Barribeau@liverpool.ac.uk>

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## UMaine UNewHampshire 5 EvolutionaryGenomics

Multiple PhD Positions in Ecological Genomics beginning Spring 2019

As part of a new, collaborative NSF-funded research and training program in the genomic ecology of coastal organisms, the Universities of Maine and New Hampshire seek a cohort of up to five new PhD students who will study genome-phenome relationships in the wild. All students will conduct both field work and genomic analyses towards understanding adaptation and fitness associations in several species of tidal marsh sparrows (see further details below). Field work during summer months may involve supervising field crews in tidal marshes across the Northeast US, from Maine to Virginia. Genomic analyses may include whole-genome sequencing, candidate gene sequencing, gene expression analyses, meta-barcoding, and microbiome characterization. All students will have the opportunity to work in collaboration with a diverse team of investigators, graduate students, and undergraduate students at both institutions.

Two students will be based primarily at the University of Maine–Orono, an hour to the ocean and an hour and a half to Maine's highest peak.

1. Ecological genomics of sparrow plumage: One PhD student will be co-advised by Drs. Kristina Cammen (<http://cammenlab.org>) and Brian Olsen (<https://sbe.umaine.edu/olsen-2/>) through the Ecology and Environmental Sciences program at the University of Maine. This student will investigate adaptation and the links between plumage phenotypes (color, resilience to wear, and microbiomes) and reproductive fitness across sparrow species. For more information, or to apply, please contact: [kristina.cammen@maine.edu](mailto:kristina.cammen@maine.edu) and [brian.olsen@maine.edu](mailto:brian.olsen@maine.edu)

2. Ecological genomics of kidney function: One PhD student will be advised by Dr. Benjamin King (<https://umaine.edu/biomed/home/faculty/benjamin-king/>) through the Molecular and Biomedical Sciences program at the University of Maine. The student will research genes and pathways under selection in tidal marsh sparrow species with greater salinity tolerance using comparative genomics, population genomics and transcriptomics. For more information, or to apply,

please contact: [benjamin.l.king@maine.edu](mailto:benjamin.l.king@maine.edu).

Three students will be based primarily at the University of New Hampshire in Durham, NH, 30 minutes from the ocean and less than two hours from the White Mountains. Students will be enrolled in the Natural Resources and Earth Systems Science (NRESS) program (<https://www.unh.edu/nressphd>) and will be advised by Dr. Adrienne Kovach (<http://www.kovachlab.com>). Students will conduct research in the following three focus areas: 1) Genetic underpinnings of nesting adaptations and links between nesting traits, including the timing of nest initiation, candidate genes for circadian rhythms, and reproductive fitness across sparrow species; 2) Parallel evolution - this student will investigate broad-scale genotype-phenotype and genotype-environment relationships in relation to tidal marsh adaptations for six sparrow species sampled across an environmental and geographic gradient; and 3) Diet and eco-evolutionary feedbacks - this student will study variation in sparrow diets using meta-barcoding of fecal samples and the linkages with fitness and the trophic impacts on the marsh; this student will also work closely with Drs. Serita Frey (UNH) and Mike Kinnison (UMaine). To apply, or for more information, contact [adrienne.kovach@unh.edu](mailto:adrienne.kovach@unh.edu).

Qualifications: Successful candidates must have a strong background in ecology and/or genomics. Preferred candidates will have demonstrated experience with field work, in particular, bird mist-netting (previous time as a federal banding sub-permittee strongly preferred), as well as experience in genetics, genomics, and/or bioinformatics. Consistent with our program scope and to advance an integrated understanding of adaptation in nature, we are especially interested in candidates who show promise to work in an inclusive and diverse collaborative environment and to engage intellectually across the diverse scales of genomes, phenomes, and environmental feedbacks. Individuals who are intellectually curious, responsible, willing to learn, team-oriented, and have attention to detail are encouraged to apply. An M.S. in a related field is preferred, but qualified candidates with extensive experience will be considered.

How to apply: Please send a cover letter describing your qualifications, including your commitment to diversity and inclusion in collaborative science, a curriculum vitae, unofficial transcripts, and the contact information for at least three references to the contacts listed above for each position for which you would like to be considered. Please use "Ecological Genomics PhD Student Search" as

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

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## UMassDartmouth SpeciationGenomics

PhD/MS Positions in Speciation Genomics and Behavior available in the Kozak Lab at UMass-Dartmouth

The Kozak lab studies the genetic and environmental factors that alter mating behavior and create reproductive isolation among populations, ultimately leading to speciation. We study the genetic architecture of behavior in males and females to understand how mating preferences evolve. Our research on speciation and hybridization uses a combination of behavioral experiments, field collection, genomic sequencing, and bioinformatics in Lepidopteran systems. For more details, visit the lab's website: <https://kozaklab.weebly.com/> Prospective students should email a short description of their research interests and past research experience along with a resume or CV to [gkozak@umassd.edu](mailto:gkozak@umassd.edu)

UMass-Dartmouth provides a PhD program in Integrative Biology and a MS program in Biology. Located on the south coast of Massachusetts, the University is less than 60 miles from Boston, Cape Cod, and Providence RI. For more information visit: <https://www.umassd.edu/cas/biology/graduateprograms/> - Dr. Genevieve Kozak UMass-Dartmouth 285 Old Westport Road Dartmouth, MA 02747

Genevieve Kozak <[gkozak@umassd.edu](mailto:gkozak@umassd.edu)>

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## UNeuchatel Switzerland MicrobialInteractions

I am a starting principal investigator and am looking to recruit a PhD student to work on mathematical modelling of microbial interactions, including bacteria growth in biofilms, bacteria dispersal through fungal hyphae networks, and bacteria-fungi interactions under different nutritional conditions, in the University of Neuchâtel, Switzerland. The student will be co-supervised by Prof. Redouan Bshary and/or Prof. Pilar Junier.

The PhD project involves both experiments (20%) and modelling (80%). The successful applicant should have a degree in mathematics, physics, biology, or another related field. A prerequisite is a keen interest in both mathematical modelling and understanding real biological systems. Good quantitative skills are essential. Experience in mathematical modelling and knowledge of a programming language is an advantage. Experience in microbiology experiments is preferred but not required, since the lab skills required by the experiments are basic and can be learned quickly. The candidate needs to be fluent in English.

To apply, please send an email to <li@evobio.mpg.de> by December 31, 2018 (later inquiries might also be considered). Please include in your email a statement including 1) your research interests and career plan, 2) a brief overview of your previous academic and research experiences, and explain how your background fits with the project, 3) a CV or resume, and 4) a list of 2 to 3 academic references with their names and email addresses.

The position is funded by the Swiss National Science Foundation with a competitive salary for 4 years. The starting date is negotiable but must be before July 1st, 2019.

For more information about the project, please send me an email.

Xiang-Yi Li <li@evolbio.mpg.de>

Xiang-Yi Li (PhD) Department of Evolutionary Biology and Environmental Studies University of Zurich Winterthurerstrasse 190 CH-8057 Zurich Switzerland

Xiangyi Li <li@evolbio.mpg.de>

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## Univ Vermont EvolGenomics

Three open PhD positions in Evolutionary Genomics, Ecological Physiology, and Molecular Evolution

The Lockwood Lab at the University of Vermont is seeking energetic and motivated graduate students with an interest in evolutionary genomics, ecological physiology and molecular evolution to participate in a set of NSF-funded projects to examine the genomics and physiology of thermal adaptation in *Drosophila* spp. Students will be expected to develop their own dissertation project that reflects their own interests, within the overall goals of these NSF-funded projects. This is a unique opportunity

to be involved in work that is highly integrative and will bring together a diversity of tools to elucidate mechanisms of environmental adaptation. Thus, students will have the opportunity to gain valuable training in genomic mapping, transcriptomics, protein biochemistry, and confocal fluorescence microscopy.

The Biology Department at the University of Vermont is a research-intensive integrative department, with internationally-recognized faculty conducting both theoretical and empirical research in disciplines from cells to ecosystems. Founded in 1791, UVM is consistently ranked as one of the top public universities in the United States. The University is located in Burlington, Vermont, a vibrant and environmentally-minded small city rich in cultural and recreational activities for members of the research community and their families.

Summer support will be provided for four years; funding during the academic year will be in the form of teaching fellowships initially, with a full year of research assistantship support during the final year of the dissertation. Admission to the PhD program will be for Fall 2019.

Successful candidates will have strong academic records, meaningful previous research experience, and strong interests in evolutionary genetics, genomics, and ecological physiology.

Applicants are also encouraged to apply for acceptance into the QuEST program at the University of Vermont. QuEST is an NSF-funded National Research Training grant in Quantitative and Evolutionary STEM training (QuEST). The QuEST program provides doctoral students with foundational training in quantitative data analysis and modeling, fellowship support, and internship placements to apply evolutionary principles toward solving real-world problems.

For more information about the QuEST program: <https://www.uvm.edu/quest>. To apply please send an email to Brent Lockwood (Brent.Lockwood@uvm.edu) if you are interested. Please include a CV, description of your background, and why you feel you are a good fit for the Lockwood Lab.

Applications are currently being accepted. The application to the graduate program at University of Vermont can be found here: <https://www.applyweb.com/uvmg/-index.ftl>. The application to the QuEST program can be found here: <https://www.uvm.edu/quest/forms/-quest-application>. The deadline to apply for Fall 2019 is December 15, 2018.

“Brent.Lockwood@uvm.edu”  
<Brent.Lockwood@uvm.edu>

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## UNotreDame EcologyEvolutionEnvironment

The Department of Biological Sciences at the University of Notre Dame offers a wide range of research opportunities and graduate coursework in ecology and evolutionary biology, allowing students to excel in field, laboratory, and mathematical biology. Strengths of the program include: studies on the dynamics and divergence of populations, evolutionary and ecological genomics, terrestrial and aquatic community and ecosystem ecology, epidemiology and disease ecology, experimental biology, and the impacts of global changes, including climate change, invasive species, and land use change. Our close-knit faculty provides interdisciplinary research opportunities and excellent research mentorship.

Our students take advantage of many resources at Notre Dame, including excellent laboratory facilities in the Hank Family Center for Environmental Studies and state-of-the-art instrumentation in our Center for Environmental Science and Technology (CEST; <https://cest.nd.edu>), the Genomics & Bioinformatics Core Facility (<http://genomics.nd.edu>), the Center for Research Computing (<http://CRC.nd.edu>), and the Notre Dame Linked Experimental Ecosystem Facility (ND-LEEF). Other hubs of EEE research include the University of Notre Dame Environmental Research Center (UNDERC; <http://underc.nd.edu/>) with sites located in the Upper Peninsula of Michigan and western Montana and the Notre Dame Environmental Change Initiative (<http://environmentalchange.nd.edu/>). Numerous opportunities for interdisciplinary interactions among research areas are available, including our GLOBES graduate training program (<http://reilly.nd.edu/globes/>) and the REACT program, which provides funding to support student training in computational techniques.

The following faculty members have vigorous graduate programs in:

Beth Archie 'V behavioral ecology, population biology, microbiome dynamics Gary Belovsky 'V terrestrial ecology and modeling, conservation biology Nora Besansky 'V evolutionary, ecological and functional genomics of malaria vectors Sunny Boyd 'V behavioral ecology, neuroendocrinology and behavioral neuroscience Jeff Feder 'V ecological and evolutionary genetics, speciation Mike Ferdig 'V systems genetics of malaria parasite drug resistance Hope Hollocher 'V population genetics, dis-

ease ecology, and microbiome interactions Stuart Jones 'V aquatic microbial and ecosystem ecology Cristian Koepfli 'V molecular epidemiology of infectious disease Gary Lamberti 'V stream and wetland ecology, ecotoxicology, and plant-animal interactions Jason McLachlan 'V ecology and evolution of plant populations, statistical modeling, paleoecology David Medvigy 'V terrestrial ecosystem modeling, ecosystem-climate interactions Alex Perkins 'V disease ecology, epidemiological modeling, population biology of disease vectors Mike Pfrender 'V ecological and evolutionary genomics, adaptation, phenotypic plasticity Matt Ravosa 'V evolution and pathobiology of the mammalian skull and musculoskeletal system Adrian Rocha 'V arctic terrestrial ecology Jeanne Romero-Severson 'V genomics of adaptive variation in natural populations of forest trees Jennifer Tank - stream ecosystem ecology and biogeochemistry

All graduate students are funded with competitive stipends. A variety of fellowship opportunities are open to top applicants. For more information regarding the Biology Graduate Program see <http://biology.nd.edu/> and <http://graduateschool.nd.edu/>. The deadline for receipt of all application materials for the Ph.D. program is December 1st, 2018, although earlier submission is encouraged to ensure full consideration for available fellowships. Please begin your application by directly contacting faculty of interest.

Elizabeth Archie <Elizabeth.A.Archie.2@nd.edu>

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## UOulu InsectMolSystematics

The following full-time jobs are open in the Insect Genomic Systematics Group (<https://insgensyst.wordpress.com/>) at the University of Oulu, Finland:

1. Post-doctoral Researcher (3 years)
2. PhD student (3 years and 8 months)

In this project, genomic tools, particularly anchored hybrid enrichment (AHE) method, will be applied to develop novel approaches to define species boundaries under different evolutionary circumstances and with taxonomically challenging groups of insects.

For more information, go to:

[https://rekry.saima.fi/certiahome/-open\\_job\\_view.html?did=5600&jc=1&id=00006271&lang=en](https://rekry.saima.fi/certiahome/-open_job_view.html?did=5600&jc=1&id=00006271&lang=en) Application deadline is 1 November 2018. The earliest start date is 1 January

2019.

Only online applications will be considered. Other inquiries to:

Marko Mutanen marko.mutanen@oulu.fi

Marko Mutanen <Marko.Mutanen@oulu.fi>

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## URegensburg PlantSystematics

Open Ph.D. position in Evolutionary and Systematic Botany at the Institute of Plant Sciences of the University of Regensburg (Germany)

Position description: A 3-years Ph.D. position is presently available in the area of plant systematics and evolution at the Institute of Botany of the University of Regensburg, under the supervision of Prof. Dr. Christoph Oberprieler (<https://www.uni-regensburg.de/biologie-vorklinische-medizin/evolution-systematik-pflanzen/index.html>) and in co-operation with Dr. Robert Vogt (Botanic Garden & Botanical Museum Berlin-Dahlem). The salary will be according the TV-L E13 (65%). The Ph.D. project is part of the German Research Foundation's Priority Programme "Taxon-Omics: New Approaches for Discovering and Naming Biodiversity" (SPP 1991) with the title "Setting-up a methodological pipeline for species delimitation and species network reconstruction in polyploid complexes". The focus of the research project will be on the evolution of polyploidy in the genus *Leucanthemum* (Compositae, Anthemideae) and will use this genus of around 40 species distributed in southern and central Europe to establish and validate molecular techniques (especially next-generation sequencing techniques) and bioinformatic workflows for the objective delimitation of evolutionary significant units (species) and the reconstruction of reticulate phylogenies in this polyploid plant group.

The project will complement presently ongoing Ph.D. and postdoc projects dealing with the phylogeny of the genus and of other Compositae-Anthemideae.

Deadline for application: November 4, 2018. If needed, the position will remain open until a suitable candidate is found.

Starting date: January 1, 2019

Requirements: Applicants are expected to have their Masters/Diploma degree by the start of the Ph.D. project. Good knowledge of English and German are

highly desirable. The ideal candidate will have documented experience in one or more of the following areas: molecular biology, bioinformatics, phylogeny reconstruction. The selected candidate will be a member of the Regensburg International Graduate School of Biological Sciences (RIGeL; <https://www.rigel-regensburg.de>).

How to apply: Please send you application including (a) an application letter addressing your motives for application and your career goals, (b) a CV including a detailed list of molecular, analytical, linguistic, and field work skills, presentations at scientific meetings, and publications (if applicable), and (c) addresses of two academic advisors who could comment on your skills, your dedication to science, and your ability to work cooperatively in a team. Please, send applications by email to:

Prof. Dr. Christoph Oberprieler

Evolutionary and Systematic Botany Group

Institute for Plant Sciences

Universitat Regensburg

Universitätsstr. 31

D-93053 Regensburg (Germany)

phone +49-(0)941-9433129

fax +49-(0)941-9433115

christoph.oberprieler@ur.de

Note: This is the English translation of a German job advertisement published by the Universitat Regensburg at [www.uni-regensburg.de/universitaet/-stellenausschreibungen/](http://www.uni-regensburg.de/universitaet/-stellenausschreibungen/). Only the original German text is legally binding.

Prof. Dr. Christoph Oberprieler Evolutionary and Systematic Botany Institute of Plant Sciences University of Regensburg Universitätsstr. 31 D-93053 Regensburg Germany phone +49-(0)941-943-3129 fax +49-(0)941-943-3115 eMail: christoph.oberprieler@ur.de <http://www.uni-regensburg.de/biologie-vorklinische-medizin/evolution-sy stematik-pflanzen/index.html>

Christoph Oberprieler <Christoph.Oberprieler@biologie.uni-regensburg.de>

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## UTokyo EvolutionaryDemography

The Shefferson lab at the University of Tokyo is recruiting graduate students at both the MS and PhD

levels. We specialize in \*evolutionary demography\*, \*eco-evolutionary dynamics\*, and \*plant/microbial evolution\*. We are currently working on funded projects related to the evolution of mycoheterotrophy, the biogeography of life history evolution, the impacts of individual heterogeneity on population dynamics, mycorrhizal coevolution, and urban evolution. Students applying to work in the lab may focus on these topics, or choose other research themes in plant and microbial evolutionary ecology. Research methods typically involve in situ monitoring and experimentation, combined with modeling and analysis based in R and/or C++.

The Shefferson lab is global in its scope, with active field sites in East Asia, North America, and Europe. Our current collaborations include projects that are global in scope, as well as projects focused on field systems in Estonia, China, Taiwan, Japan, the United Kingdom, and the United States. Although we work with all plants and fungi, we are particularly interested in herbaceous plants and mycorrhizal fungi. Interested students may read about our projects our interests through several sources, including the Journal of Ecology blog (<https://j ecologyblog.com/2018/03/22/richard-shefferson/>), and various media sources, such as Popular Science (<https://www.popsci.com/plants-dormant-climate-change>).

The Shefferson lab is located within the University of Tokyo, at the Komaba Campus. U Tokyo is home to some of the finest scientists in Japan, including ecologists and evolutionary biologists, and more Nobel laureates than you can shake a stick at. Komaba in particular has a particularly large community of ecologists and evolutionary biologists working on plants, animals, and fungi. We also offer graduate programs in both Japanese and English. Students wishing to pursue their graduate research may do so fully in English via the Graduate Program in Environmental Sciences (<http://gpes.c.u-tokyo.ac.jp/>), or may pursue study in Japanese via the General Systems Sciences program (<http://system.c.u-tokyo.ac.jp/>). \*Please note \*\*that t\*\*here is a strict application deadline of 22 Nov 2018 for entry in September 2019.\*

If interested, please contact me at, and please also explore the Shefferson lab website:

E-mail: [cdorm@g.ecc.u-tokyo.ac.jp](mailto:cdorm@g.ecc.u-tokyo.ac.jp)

HTML: [www.sheffersonlab.com](http://www.sheffersonlab.com) [dormancy@gmail.com](mailto:dormancy@gmail.com)

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## UUtah EvolutionHostParasite

Ph.D. Research: Evolutionary Ecology of Host-Parasite Interactions, Clayton-Bush Lab, School of Biological Sciences, Univ. of Utah

We are seeking a highly motivated Ph.D. student interested in the evolutionary ecology of host-parasite systems. Projects in our lab focus on host specificity, speciation, co-speciation, competition, adaptive radiation, and reciprocal selective effects between parasites and hosts. We are particularly interested in recruiting a student to continue long-term experimental evolution studies of feather lice on birds. For recent examples of this work see: <https://www.biorxiv.org/content/early/2018/10/05/436287>, <https://www.biorxiv.org/content/early/2018/09/18/420380> Information about our lab can be found here: <http://darwin.biology.utah.edu/> A position is likely to be available beginning autumn semester, 2019. Students in our lab are supported through a combination of fellowships, research assistantships, and teaching assistantships. Support is guaranteed for five years, contingent upon performance.

Former Ph.D. students from our lab have strong track records and have obtained positions at academic institutions ranging from small colleges to R1 universities.

Please visit [www.biology.utah.edu/](http://www.biology.utah.edu/) for departmental information. Students interested in our lab should apply through the graduate program in Ecology, Evolution and Organismal Biology. Admission requirements and applications are available at <http://www.biology.utah.edu/-graduate/eeob/phd.php> The application deadline is January 3rd, 2019.

Inquiries are welcome by email to: [clayton@biology.utah.edu](mailto:clayton@biology.utah.edu)

Dr. Dale H. Clayton ([clayton@biology.utah.edu](mailto:clayton@biology.utah.edu))

Dr. Sarah E. Bush ([bush@biology.utah.edu](mailto:bush@biology.utah.edu))

Sarah Bush <[dovelouse@gmail.com](mailto:dovelouse@gmail.com)>

Vermont 05405 (802)656-2962 scahan@uvm.edu

Sara Cahan <scahan@uvm.edu>

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## U Vermont Epigenetics Thermal Tolerance

Graduate positions in Ecological Genomics of Thermal plasticity in *Drosophila*

The Helms Cahan and Lockwood labs at the University of Vermont are seeking energetic, motivated graduate students with an interest in evolutionary genomics, physiological ecology and molecular evolution to join a new NSF/EPSCoR-funded project on epigenetic mechanisms and evolution of thermal plasticity in *Drosophila*. The student will be expected to develop his or her own dissertation project within the overall research program that reflect his or her interests. Summer support will be provided for four years; funding during the academic year will be primarily in the form of teaching fellowships. Admission to the PhD program would be for Fall 2019, but support for summer field work could begin as early as June.

The Biology graduate program at the University of Vermont offers MS and PhD degrees across a wide range of disciplines from molecular biology to ecology. Our department has a particularly lively and productive group in Ecology and Evolution, with a strong focus on the integrative study of social insects (systematics, behavior, evolution, genetics, and ecology). Our department has recently been awarded a major NSF-funded National Research Training grant in Quantitative and Evolutionary STEM training (QuEST). The QuEST grant provides doctoral students with foundational training in quantitative data analysis and modeling, fellowship support, and internship placements to apply evolutionary principles toward solving real-world problems. Students interested in participating in the QuEST program can find more information here: <https://www.uvm.edu/quest> To inquire about the positions, please send an e-mail to Sara Helms Cahan (scahan@uvm.edu) or Brent Lockwood (bblockwo@uvm.edu) indicating your research interests and experience.

To find out more about research in the Helms Cahan lab, go to: <https://www.uvm.edu/cas/biology/profiles/sara-helms-cahan> To find out more about research in the Lockwood lab, go to: <https://lockwoodlab.weebly.com/>

To find out more about the Biology graduate program and faculty, go to: <https://www.uvm.edu/cas/biology> Sara Helms Cahan Associate Professor and Chair Department of Biology University of Vermont Burlington,

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## U Virginia Ecology Evolution Behavior

The Department of Biology at the University of Virginia is currently recruiting PhD students in Evolution, Ecology, and Behavior (EEB). Graduate training in EEB at UVA emphasizes research creativity, independence, and collaboration. We are looking for students who bring their own ideas to the conversation, and who are willing to explore and master new techniques to research those ideas. The size of our program provides exceptional opportunities for close interactions with faculty both in a student's home laboratory and across the department. Many students conduct their research at the Mountain Lake Biological Station where they interact closely with scientists and students from all over the world. Check out more details about our graduate program, including program requirements and opportunities, at <https://www.eebvirginia.org/> Research in the EEB group at UVA spans a wide range of techniques and organisms. We encourage prospective students to reach out to faculty who are currently accepting applications to discuss potential research projects and the application process. Faculty currently recruiting students include:

Alan O. Bergland: Evolutionary ecology and ecological genetics of rapid adaptation in *Drosophila* and *Daphnia*.

Butch Brodie: Evolution of social behavior, adaptation, and co-evolutionary dynamics in beetles, snakes, and newts.

Bob Cox: Natural and sexual selection, evolutionary genetics, and evolutionary endocrinology in lizards.

Laura Galloway: Mating system evolution and speciation in plants.

Mandy Gibson: Host-parasite interactions and coevolution in nematodes.

Jennifer GÅÅ<sup>1</sup>ler: Evolution of drug resistance in malaria.

David Parichy: Evolution and development of pigmentation and other traits.

Deborah Roach: Life history evolution and plant evolutionary ecology.

Douglas Taylor: Population genetics, genomic conflict,



and evolution in subdivided populations of plants.

Martin Wu: Microbial ecology and the microbiome.

Grad life at UVA: Charlottesville is a progressive college town that sits in the foothills of the Blue Ridge Mountains. It is consistently named on lists of best places to live in the USA. We have abundant opportunities for outdoor recreation, a world-class music scene, and prominent local food, brewing, wine, and art culture. We are a short drive or train ride from Washington, DC and only 20 minutes from Shenandoah National Park. The Department of Biology has an active Graduate Student and Postdoc Association that promotes intellectual and social discourse throughout the department. Their activities include selecting and inviting an outside speaker each year, raising funds for student travel awards, hosting social events, and advocating for student welfare.

Application process: Formal application to EEB takes place through the Department of Biology. We begin reviewing applications December 1 each year. GRE scores are not required or evaluated for admission. Prospective admittees are invited to visit the Department for a recruiting weekend in February to meet faculty and tour facilities and town. All the details and requirements for application can be found at <http://bio.as.virginia.edu/graduate/how-to-apply> Alan O. Bergland aob2x@virginia.edu

“Bergland, Alan Olav (aob2x)” <aob2x@virginia.edu>

## UWuerzburg ClimateAdaptation

Modeling adjustment to new climate conditions in a landscape context: identification of risk zones and management options

In a joint and highly integrated study design the LandKlif Network investigates the biodiversity and multifunctionality of semi-natural, agricultural and urban landscape areas in different climate zones of Bavaria, in order to answer these questions and to develop options for the mitigation of climate change as well as the adaptation to changing climatic conditions. See homepage <https://www.bayklif.de/verbundprojekte/landklif/> for more details on overall aims and particular sub-projects. Here we are seeking a PhD candidate for TP6.

The task for the PhD candidate will be developing and analyzing of spatially explicit—simulations of communities’ responses to changes in climate (mean and variability).

The focus of analysis will be on understanding the importance of the landscape context for the ability of local communities to adapt to changing climatic regimes, maintain ecosystem services, and on defining strategies that may help to mitigate negative effects of such changes. Project aims for providing general (theoretical) results and - in cooperation with project partners — principles as well as recommendations with regard to particular empirical systems. We are seeking highly motivated PhD candidates with strong interest and expertise in developing suitable spatially explicit models and a fitting MSc degree (landscape ecology, evolution). Scientific writing and communication skills in English are required. The candidates are expected to work both individually and in team and to be able to integrate into an interdisciplinary, ambitious project. Candidate should have a background in modeling, e.g. in R, Pascal, Julia. Competence in working with GIS based maps may be useful. Salary and benefits are according to public service positions in Germany (TVL/65%). The planned duration of the PhD projects is three years. The doctoral thesis will be done as a series of English manuscripts. We offer the membership in an international research team, modern facilities and a structured graduate training program. Female scientists are particularly encouraged to apply. Disabled applicants will be preferentially considered in case of equivalent qualification.

Further information: PD Dr. Thomas Hovestadt, Department of Animal Ecology and Tropical Biology, University of Würzburg Germany. (<https://www.biozentrum.uni-wuerzburg.de/evolutionaryecology/startseite/>)

Please send your application as a single pdf file per email to [hovestadt@biozentrum.uni-wuerzburg.de](mailto:hovestadt@biozentrum.uni-wuerzburg.de) and [hermine.wohlpart@uni-wuerzburg.de](mailto:hermine.wohlpart@uni-wuerzburg.de) latest until 31 of December 2018. Applications should include a cover letter, a short summary of research interests, CV, complete certificates, and the names (with email addresses) of two potential referees. Interviews of invited candidates will be held from 14th. - 18th. January 2019 in Würzburg. Planned starting date is 1. of March 2019.

– PD Dr. Thomas Hovestadt Department of Animal Ecology and Tropical Biology - Theoretical Evolutionary Ecology Group University of Würzburg Emil-Fischerstrasse 32 97074 Würzburg, Germany

EMail [hovestadt@biozentrum.uni-wuerzburg.de](mailto:hovestadt@biozentrum.uni-wuerzburg.de) Phone: 0049 931 3182065 (Secretary) 3183083 (direct) Fax: 3183089

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## UZH Switzerland Plant Evolutionary Genetics

Funded PhD Opportunity “Evolution of the S-locus supergene in *Primula* and related Taxa” - “ESPrIT Project” This project is funded by: University of Zurich (Switzerland), Fondazione Edmund Mach (Italy)

Subject: Evolutionary genetics

Summary Heterostyly is a genetic polymorphism in which plant populations consist of two (distyly) floral morphs that differ reciprocally in the heights of stigmas and anthers. In the plant genus *Primula* (primrose), distyly is inherited as a simple Mendelian trait controlled by five genes organized in a single linkage group, termed heterostyly supergene. While the causal involvement of two of the genes, GLO2 and CYP734A50, in the onset of heterostyly has been recently established, the functions of the other three genes in the heterostyly supergene have been inferred only through sequence homology and await experimental confirmation. The project has four major objectives: 1. The functional characterization of the genes at the heterostyly locus in primroses 2. The comparative determination of the relative evolutionary pressures acting on each of them and on the locus as a whole 3. The dissection of natural genetic variation underlying heterostyly loss 4. The elucidation of how hybridization affects the evolutionary fate of the heterostyly locus

This project, pending final approval by both partner institutions, will require the candidate to spend half of the time at Zurich University (Elena Conti's lab: <https://www.systbot.uzh.ch/de/Personen/-ProfessorenundDozenten/ElenaConti.html>) and half at FEM laboratories (Claudio Varotto's lab: <https://www.fmach.it/eng/CRI/general-info/organisation/-Chief-scientific-office/Biodiversity-molecular-ecology/-Ecogenomics>). It will provide state-of-the-art training in functional and evolutionary approaches at both the inter- and intra-specific levels. This project will constitute a unique opportunity to identify the molecular bases of one of the most relevant polymorphisms responsible for both reproductive and evolutionary mechanisms in wild plants.

The selected student will be included in a Ph.D. program through the University of Zurich and will comply with the coursework, teaching, and research requirements of

that University.

To apply, please submit the following documents to both Claudio Varotto ( [claudio.varotto@fmach.it](mailto:claudio.varotto@fmach.it)) and Elena Conti ( [econti@systbot.uzh.ch](mailto:econti@systbot.uzh.ch)) BY MONDAY NOVEMBER 5, 2018 - Your cv: please note that a MSc in Evolutionary Biology, Molecular Biology, or similar disciplines is a pre-requisite for application. - Transcripts of University courses and other relevant documents (for ex., GRE exam scores, TOEFL and similar tests scores). - A comprehensive and articulate personal statement explaining why you are interested in this particular position, how your prior experience is relevant for the project, and your understanding of the subject area covered by the research goals stated above (ca. two pages). - Names, institutional affiliations, and email addresses of at least three referees who know your research and academic training. - Please, submit your application as a single pdf file containing the documents listed above and titled: *Esprit\_Application.Yourlastname* - Please, note that applications that do not follow the guidelines above will not be further considered.

Funding This project is co-funded by the University of Zurich (Switzerland) and Fondazione Edmund Mach (Italy), covering living expenses for the selected student, with some research funds.

Other information - Department of Systematic and Evolutionary Botany, University of Zurich ( <https://www.systbot.uzh.ch/en.html>) - Department of Biodiversity & Molecular Ecology, Fondazione Edmund Mach ( <https://www.fmach.it/eng/CRI/general-info/organisation/Chief-scientific-office/Biodiversity-molecular-ecology/Ecogenomics>) - Doctoral studies at University of Zurich ( <https://www.uzh.ch/en/studies/-application/doctoralstudies.html>)

Claudio Varotto <[claudio.varotto@fmach.it](mailto:claudio.varotto@fmach.it)>

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## VetMedU Vienna Austria Evolutionary Anthropology

Graduate student position in biological anthropology

A graduate studentship is available for an FWF (Austrian Science Fund) funded project on exploring food material properties and jaw loading in lemurs. The project entails detailed observations of feeding in two lemur species and mechanical property testing of their diets.

This is a field-based project that will fund a full-time

studentship for three years. As such, the student will spend significant periods of time in the field. The schedule would approximately be field work over two years with analysis and writing in the third year. The student thesis project will be developed in consultation with the project leader and should fall within the broad parameters of the larger project (e.g., diet and food properties, feeding behavior, functional morphology related to feeding). In the field, the student will collect dissertation data and assist in data collection for the larger project. The requirements for a degree include a minimum of two first-authored papers.

Prior fieldwork experience and a master's degree or equivalent in evolutionary biology or biological anthropology are strong positives.

The project is based at the University of Veterinary Medicine, Vienna in Austria. The stipend is internationally competitive as set by the Austrian Science Fund.

To apply, please send an application letter detailing research interests and qualifications, CV, and names and addresses of three references to Nayuta Yamashita (Nayuta.Yamashita@vetmeduni.ac.at). Review of applications will begin immediately and continue until the position is filled. The anticipated start date of the project is February 2019.

Vetmeduni Vienna Veterinärplatz 1 1210 Wien Austria/Europe

Nayuta Yamashita <nayuta2009@gmail.com>

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### Volcani Israel ProtozoaBacteriaSymbiosis

PhD position protozoa/bacteria ecology&evolution

The position is available in the research group of Dr. Elie Jami, from the Agricultural Research Organization, Volcani center in Israel (<https://www.agri.gov.il/-people/1280.aspx>). The position is available from 15<sup>th</sup> of October.

We are looking for a highly motivated PhD-candidate who is interested in host-bacterial interactions between rumen protozoa and their associated prokaryotic community. Our lab aims to uncover the nature of these association using a combined approach of experimental work, metagenomics and metabolomics.

We are looking for a candidate that is experienced in laboratory work.

Requirements

- MSc degree in Biology or related fields
- Hands-on experience with experimental work
- Background in microbiology and ecology
- Advantage to candidates with bioinformatics skills

Please send your application by e-mail to Elie Jami (elie@volcani.agri.gov.il). Applications should include a CV and a short statement about your interest in the field.

Dr. Elie Jami,

Department of Ruminant Sciences

Institute of Animal Science

Agricultural Research Organization

Derech Hamakabim 68, Rishon LeZion, Israel

Phone: +972-5-45494023

Fax: +972-3-6403751

Email: elie@volcani.agri.gov.il

Elie Jami <elie@volcani.agri.gov.il>

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### WashingtonU PhylogeneticModels

Graduate position in Biology at Washington University in St. Louis

A doctoral student research position is available in the lab of Dr. Michael Landis, located on the Danforth Campus in the Department of Biology at Washington University in St. Louis. The Landis Lab studies problems in phylogenomics, biogeography, and trait evolution by designing statistical models, developing inference methods as software, and applying those methods to selected groups throughout the tree of life. Learn more about the Landis Lab here: <https://landislab.github.io>. The successful candidate will research macroevolutionary questions using quantitative analyses. Several research projects are available in topics including efficient tree estimation using large phylogenomic datasets, divergence time estimation using biogeography and/or fossils, and modeling gene expression evolution. Depending on the specific skills and interests of the selected candidate, the new hire will help tailor the project so it suits their professional and training goals. The researcher will collaborate within projects, write first author papers, mentor undergraduate students, receive room to

establish intellectual independence, and train skills as needed.

Qualifications: Candidates must hold an undergraduate degree in biology, bioinformatics, computer science, statistics, or a related field. Applicants must demonstrate interest in models or methods used in evolutionary biology or ecology. The researcher will develop within the phylogenetics modeling software, RevBayes (<https://revbayes.com>), and collaborate with an international team of researchers and developers. Programming experience is desired, with preference for C/C++/Java over Python/R.

Employment: The position begins in the fall of 2019 with guaranteed funding for five years. It is a full-time position that pays a competitive salary of \$30,500 annually. WashU offers outstanding benefits, including health, dental, vision, and life insurance (<http://dbbs.wustl.edu/curstudents/StipendBenefitsandGrants> < <http://dbbs.wustl.edu/curstudents/StipendBenefitsandGrants/Pages/default.aspx> >). St. Louis itself is both an exciting and family friendly city, with affordable housing and excellent access to food, music, art, and public spaces.

Application: PhD applicants are officially accepted through the Division of Biology and Biomedical Sciences (DBBS). Exact application requirements are listed through the DBBS PhD Admissions webpage: <http://dbbs.wustl.edu/prospstudents/PhDAdmissions> < <http://dbbs.wustl.edu/prospstudents/PhDAdmissions/Pages/PhD-Application-Instructions.aspx> >. Applicants are strongly encouraged to initiate a conversation with [michael.landis@wustl.edu](mailto:michael.landis@wustl.edu) before applying. Deadline for Fall 2019 applications is December 1st, 2018.

WashU is an Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, age, sex, sexual orientation, gender identity or expression, national origin, genetic information, disability, or protected veteran

status.

Contact: Please email [michael.landis@wustl.edu](mailto:michael.landis@wustl.edu) with any questions regarding this posting.

Michael Landis Assistant Professor Department of Biology Washington University Saint Louis, MO 63130

[michael.landis@wustl.edu](mailto:michael.landis@wustl.edu)

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## Williamsburg VA PlantEvolutionDevelopment

Graduate position: Plant Evolution and Development

The Puzey lab (<http://puzeylab.weebly.com>) at the College of William and Mary (Williamsburg, VA) is recruiting a graduate student (M.S Biology) interested in using genomics to understand the evolution and development of complex spatial patterns in plants. Positions for MS program start Fall 2019. Please contact Josh Puzey ([jrpuzey@wm.edu](mailto:jrpuzey@wm.edu)) for more information.

The successful applicant will be passionate about evolution, interested in plants, and keen to use genomic techniques to address their research questions. Students working the Puzey lab get exposure to a wide range of analyses and techniques including next-generation sequencing, population genomic analyses, and molecular ecology.

Details about the M.S. program in Biology at W&M can be found here (<http://www.wm.edu/as/biology/-graduate/>). Full-time students are supported by teaching assistantships and full tuition waivers. Most students complete their master's degree in two years and go on to pursue a PhD.

[jrpuzey@gmail.com](mailto:jrpuzey@gmail.com)

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## Jobs

ArizonaStateU EvolutionaryBiology ..... 61	SciLifeLab Sweden Bioformatics ..... 83
ArizonaStateU InvertebrateCollectionsManager .... 62	SoutheasternLouisianaU EvolutionaryBiology ..... 84
ArizonaStateU NeonProjectManager ..... 63	StellenboschU PlantPopGenetics ..... 84
Asheville NC EvolutionaryBiology ..... 63	StonyBrookU Evolution ..... 86
AuburnU Alabama MarineSystemAdaptation ..... 64	StowersInst Missouri CaveFishAdaptation ..... 86
AuburnU BioInformaticsStatistics ..... 65	Toulouse EvolutionaryBiology ..... 87
BrownU DataScience ..... 66	UBuffalo 2 GenotypePhenotype ..... 87
BrownU EvolutionaryBiology ..... 66	UBuffalo NeuroEvoDevo ..... 88
CaliforniaStateU DominguezHills Evolutionary- MarineBiol ..... 67	UCalifornia Berkeley 2 PlantFungalEvol ..... 89
CaliforniaU Pennsylvania InvertebrateEvolution ... 67	UCalifornia Berkeley Director InnovativeGenomicsInst 90
Claremont LabDirector EvolutionaryBiology ..... 68	UCalifornia LosAngeles ResAssist CulturalEvol ... 91
ClemsonU 5 HumanGenetics ..... 69	UChicago EcologyEvolution ..... 91
ColoradoStateU LabManager ConservationGenomics 70	UEdinburgh LabManager MicrobiomeEvolution ... 92
CONABIOMexico BioinformaticsSoftwareDevelopment 70	UFlorida MarineProtistEvolution ..... 93
Cornell Evolutionary EnvMicrobiology ..... 71	UFlorida PlantPhysiology ..... 94
CornellU ComputationalBiology ..... 71	UGeorgia PlantEcolEvolution ..... 95
CSU MontereyBay TT PlantPathology ..... 72	UHawaii Manoa EvolutionaryEntomology ..... 96
EmporiaStateU Genetics MolecularEcology ..... 73	UHouston EvolutionEcology ..... 97
FordhamU EvolutionaryBiol ..... 74	UIllinois Chicago Head BiologicalSciences ..... 97
GeorgeWashingtonU SoftwareEngineer ..... 75	UIllinois UC VisitingSci EvolutionaryImmunology .98
GeorgeWashingtonU VertebrateComparativePhysiology 75	UKansas Paleobotanist ..... 99
Halle Germany EvolutionaryEcol ..... 76	UKentucky EcoEvoPathogens ..... 99
LMU Munich ResearchProgrammer ..... 76	UMaryland LabTech EvolutionaryGenomics ..... 99
LouisianaStateU DataScienceBiologist ..... 77	UMinnesota DataScientist FoodAnimalBiology ... 100
MichiganStateU LabManagerFishEvoDevoGeno ... 77	UNottingham AdaptationtoEnvironment ..... 101
MiddleTennesseeStateU EvolutionaryBiology ..... 78	UPittsburgh LabTech PlantSymbiontInteractions .102
Namibia LabTech CheetahConservation ..... 78	UPretoria ResManager ConservationBiol ..... 103
NatlTaiwanU 2 PlantMicrobeEvolution ..... 79	UQueensland QuantitativeBiology ..... 103
NewYorkU TeachingEvolution ..... 79	URochester EcologyEvolution ..... 104
NorthDakotaStateU EvolutionaryGenomics ..... 80	USDA Geneva NY SeedCropsCurator ..... 105
OklahomaStateU 2 EvolutionaryNeurobiology ..... 81	USouthernCalifornia ComparativeEvolution ..... 105
PennsylvaniaStateU AncientDNA ..... 81	UTEP Biologist Infectious Diseases ..... 106
SanFrancisco BotanyAssistantCurator ..... 82	UTexas Tyler BioinformaticsGenomics ..... 106
SanFranciscoStateU EvolutionaryMicrobiology .... 83	VirginiaCommonwealthU 4 Bioinformatics ..... 107
	Yale MarineConservation ..... 108

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### ArizonaStateU EvolutionaryBiology

JOB #12582 Assistant/Associate/Full Professor School of Life Sciences and the Biodesign Center for Mechanisms of Evolution

Arizona State University The School of Life Sciences (SOLS) and the Biodesign Center for Mechanisms of

Evolution (CME) at Arizona State University (ASU) invite applications for a full time, tenure-track, open rank faculty position with an anticipated start date of August 15, 2019. This is the second of six anticipated new Center faculty positions, focused on the mechanistic processes underlying evolutionary change. The CME occupies a floor in a new building in the Biodesign Institute, which itself supports a diversity of other interdisciplinary centers and is well-equipped with state-of-the-art facilities. The CME is part of a growing community of evolutionary biologists at ASU

(<https://sols.asu.edu/evolutionary-biology-faculty> and <http://asupopgen.org/>).

The research focus of the Center is expected to be primarily at the cellular level, with the group being populated by scientists from the areas of cell biology, microbiology, biophysics, biochemistry, and population genetics. The successful candidate will join a dynamic faculty working to advance innovative research and excellence in teaching through its work in the diverse and growing undergraduate and graduate student population at ASU. We invite you to learn more about the School of Life Sciences, the Biodesign Institute, and Arizona State University by visiting <https://sols.asu.edu>, <https://biodesign.asu.edu> and <https://newamericanuniversity.asu.edu/>, respectively. Candidates can anticipate competitive salary and start-up packages. Successful candidates will be expected to develop an innovative, extramurally-funded, independent research program; fulfill teaching requirements at both the undergraduate and graduate levels, including mentoring undergraduate and graduate students, and postdoctoral trainees; and have a commitment to outreach and service at levels within and outside the University community. Interaction and collaboration with faculty of SOLS and with other groups in the Biodesign Institute, the School of Molecular Sciences, and the recently announced Mayo Clinic and ASU Alliance for Health Care partnership is encouraged.

**Minimum Qualifications:** A doctoral degree or MD/PhD in the biological sciences or a related field, and one or more years of relevant postdoctoral experience at the time of appointment; demonstrated research and teaching/mentoring excellence; a significant commitment to evolutionary biology and to integrating theory with empirical work; a demonstrated record of significant publications; and potential to develop a strong research program on the mechanisms of evolution. **Desired Qualifications:** Strong interest and training in understanding the mechanisms of evolution at the cellular and/or population-genetic levels; research areas that complement expertise of existing faculty and will expand our overall research and instructional capabilities. Examples of desired research foci include: the molecular mechanisms of evolution in experimental microbial populations; the evolution of protein structure and function; the evolution of bioenergetic and growth properties of cellular and subcellular features; the mechanisms underlying cell biological scaling laws; the evolution of intracellular communication systems such as transcription and signal transduction; and the development of high-throughput / nanotechnological approaches for addressing these issues. We are fully open to candidates whose research has strong applied implications. Demon-

strated ability to work with diverse student populations and/or reaching out to diverse communities is desirable.

To apply, please submit the following materials in a single PDF document to [solsfacultysearch3@asu.edu](mailto:solsfacultysearch3@asu.edu): (1) Cover letter that includes contact information (including email addresses) for three references who may be contacted at a later stage of consideration, (2) a comprehensive curriculum vitae that includes a complete publication record, (3) three representative publications, (4) a statement of research vision and plans, (5) a statement of teaching philosophy/experience. All applications must be sent electronically. Specific scientific inquiries can be addressed to Michael Lynch, Director of the CME ([mlynch11@asu.edu](mailto:mlynch11@asu.edu)).

Initial deadline for review of complete applications is November 22, 2018 ; if not filled, review will continue every week thereafter until the search is closed. A background check is required for employment. Arizona State University is a VEVRAA Federal Contractor and an Equal Opportunity/Affirmative Action Employer. All qualified applicants will be considered without regard to race, color, sex, religion, national origin, disability, protected veteran status, or any other basis protected by

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## ArizonaStateU InvertebrateCollectionsManager

The Arizona State University (ASU) School of Life Sciences is seeking an Invertebrate Collections Manager for the National Ecological Observatory Network Biorepository (NEON). This project is expected to run for 30 years. For each project year, the NEON Biorepository at ASU will receive, process, store, 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 invertebrate collections manager will play a critical role in coordinating these tasks, focusing on the high-volume and taxonomically diverse samples of pinned and pooled ground

beetles (Carabidae), mosquitoes (Culicidae), pitfall trap “by-catch”, and aquatic macroinvertebrates. The position requires expertise in arthropod/insect diversity and identification, and an ability to develop new data products to leverage the research potential of NEON invertebrate specimens with the greater community.

For more position details and to apply:

1. Go to: <https://cfo.asu.edu/applicant>
2. Click on “External staff”
3. Enter: 46496BR

Prior inquiries are encouraged.  
nico.franz@asu.edu

nico.franz@asu.edu

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### ArizonaStateU NeonProjectManager

Inquiries strongly encouraged.

The Arizona State University (ASU) School of Life Sciences and Biodiversity Knowledge Integration Center (BioKIC) are seeking a Project Manager for the National Ecological Observatory Network (NEON) Biorepository. NEON ([neonscience.org](http://neonscience.org)) is a continental-scale ecological observation facility, sponsored by the National Science Foundation and operated by Battelle. The project is expected to run for 30 years. For each project year, the NEON Biorepository at ASU will receive, process, store, and make available an average of 100,000 biodiversity occurrences sampled at more than 80 sites across the United States. The diverse samples include DNA extractions, frozen soil samples, bulk and pinned insect collections, herbarium vouchers, and partial or entire vertebrate specimens, among others. A high rate of sample use for NEON-related research projects is expected. A new data portal will support the discovery and transactions of samples, as well as usage statistics. The project will transition throughout a multi-year infrastructure and service growth phase before reaching its full capacity. Achieving these goals will require reliable coordination of project personnel and budgets, space renovations and infrastructure creation, and timely reporting to internal and outside institutions, including the NEON research community and greater public.

For more position details and to apply:

1. Go to: <https://cfo.asu.edu/applicant>
2. Click on “External staff”
3. Enter: 46498BR

Contact: nico.franz@asu.edu

nico.franz@asu.edu

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### Asheville NC EvolutionaryBiology

Candidates with whose research focuses on evolutionary biology and conservation genetics are encouraged to apply!

Faculty position in Conservation Biology at Warren Wilson College in Asheville, NC

Warren Wilson College seeks applicants for a full-time faculty position as a Professor of Conservation Biology in the Biology Department. The successful applicant must be able to teach courses in Conservation and Wildlife Biology, Ecology, General Biology, and disciplinary courses in their specialty that will support Warren Wilson College’s thriving conservation program. The position also includes mentoring students in undergraduate research projects and academic advising for baccalaureate core requirements and major requirements as well as pre-professional advising for students pursuing careers in conservation and resource management. This is a full-time, continuing faculty position in an extended contract system. The Biology Department of Biology emphasizes hands-on immersive studies of the living world within the context of a liberal arts education. The program awards two degrees: a B.S. in Biology and a B.S. in Conservation Biology. The Biology major allows students to explore a broad range of biological disciplines and scales of organization (ranging from molecules to ecosystems), as well as the opportunity to explore one of several specialized areas in greater depth. The Conservation Biology major is designed for students wishing to specialize in conservation-oriented research, with the intent to pursue graduate school in the natural sciences and/or work as conservation scientists in academia, government, or the private sector. Successful candidates will have evidence of excellence in and commitment to undergraduate teaching, and a track record of relevant scholarly activity.

**RESPONSIBILITIES:** - Regular teaching load is 24 credit hours per year; typically, 4 credits are re-assigned to mentor undergraduate research projects. - Provide academic and career advising to students within Biology and Conservation Biology. - Mentor student research projects within the Natural Science Undergraduate Research Sequence. - Participate in and contribute to the business of the Biology Department. - Contribute to the college’s General Education Program, as appropri-

ate. - Service to the college, and ongoing professional development and scholarly activity.

QUALIFICATIONS: - PhD in relevant field earned by July 1, 2019. - Successful undergraduate teaching experience. - Demonstrated commitment to professional growth and scholarship - Commitment to experiential and applied learning pedagogy - Past work in diverse or multicultural environments; strong commitment to diversity, equity, and inclusion and ability to work with a diverse groups of students and colleagues

Interested candidates should apply electronically (<https://warren-wilson.breezy.hr/p/99dd52c7511c-professor-of-conservation-biology>) and should include in their application a cover letter, curriculum vitae, and three professional letters of reference. Cover letter should describe how the position aligns with the candidate's expertise and interests and explain how, as a teacher, scholar, mentor, or community member, the candidate would contribute to Warren Wilson College's commitment to diversity and inclusion. Electronic submission is required.

Review of applications will begin on November 1 and will continue until the search concludes.

ABOUT WARREN WILSON COLLEGE Warren Wilson College is an independent liberal arts college located on a beautiful 1135-acre campus in the Blue Ridge Mountains on the edge of Asheville, North Carolina. The college's educational model integrates academics, campus work, and community engagement for a rich, challenging student experience. We seek individuals with a genuine interest in our unique approach to education, and a willingness to fully participate in the life of the college. We desire a diverse faculty and a community that reflects a global outlook. WWC is an equal opportunity employer and does not discriminate on the basis of sexual orientation, race, color, creed, religion, national or ethnic origin, gender, age, marital status, or disability.

Alisa Hove, PhD Chair, Department of Biology Warren Wilson College PO Box 9000 Asheville, NC 28815-9000  
Phone: (828) 771-3071 Email: [ahove@warren-wilson.edu](mailto:ahove@warren-wilson.edu)  
Alisa Hove <[ahove@warren-wilson.edu](mailto:ahove@warren-wilson.edu)>

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## AuburnU Alabama MarineSystemAdaptation

Faculty Position in Global Change Biology of Marine Systems

Department of Biological Sciences, College of Sciences and Mathematics

Auburn University

The Department of Biological Sciences at Auburn University invites applications for a tenure-track Assistant Professor position in Global Change Biology of Marine Systems. The successful candidate is expected to begin Fall 2019 and establish an extramurally funded, internationally recognized research program focused on biological responses to global anthropogenic change. We seek candidates who will strengthen our marine biology program (<http://www.auburn.edu/cosam/departments/-biology/marine-biology.htm>) and also complement our core area in Behavior, Ecology, Evolution, and Conservation ([http://www.auburn.edu/cosam/departments/-biology/dbs\\_core\\_areas/beec\\_core\\_area/index.htm](http://www.auburn.edu/cosam/departments/-biology/dbs_core_areas/beec_core_area/index.htm)). We welcome candidates with research interests in population and community dynamics, invasive species biology, host-symbiont interactions, disturbance ecology, and other aspects of marine global change. Auburn University has formal ties to Dauphin Island Sea Laboratory (<https://www.disl.org/>), which offers new faculty unique opportunities to build research collaborations. The candidate will have teaching responsibilities in undergraduate marine science or related courses, and will be expected to develop or contribute to a graduate course in their research specialty.

Applicants must have a Ph.D. in Biological Sciences, or a closely related discipline at the time employment begins, and relevant postdoctoral experience. The successful candidate must demonstrate excellent written and interpersonal communication skills and collegiality. Desired qualifications include a strong record of publication, teaching experience, and demonstrated ability to acquire extramural funding. The candidate selected for this position must be able to meet eligibility requirements to work in the United States at the time the appointment is scheduled to begin and to continue to work legally for the proposed term of employment.

Review of applications will begin November 1, 2018, and will continue until a suitable candidate is



hired. Applicants should submit curriculum vitae, a description of research interests, a statement of teaching philosophy and experience, and the names and contact information of three professional references. Applicants must submit their materials online at: <http://aufacultypositions.peopleadmin.com/postings/3186> . More information about the department and its programs can be found at the following website: <http://www.auburn.edu/cosam/departments/biology/> . Auburn University is one of the nation's premier public land-grant institutions. In 2019, it was ranked 52nd among public universities by U.S. News and World Report. Auburn maintains high levels of research activity and high standards for teaching excellence, offering Bachelor's, Master's, Educational Specialist, and Doctor's degrees in agriculture and engineering, the professions, and the arts and sciences. Its 2018 enrollment of 30,440 students includes 24,628 undergraduates and 5,812 graduate and professional students. Organized into twelve academic colleges and schools, Auburn's 1,450 faculty members offer more than 200 educational programs. The University is nationally recognized for its commitment to academic excellence and community engagement, its positive work environment, its thriving student life programs, and its beautiful campus.

Auburn residents enjoy a thriving community, recognized as one of the 'best small towns in America,' with moderate climate and easy access to major cities or to beach and mountain recreational facilities. Situated along the rapidly developing I-85 corridor between Atlanta, Georgia, and Montgomery, Alabama, the combined Auburn-Opelika-Columbus statistical area has a population of over 500,000, with excellent public school systems and regional medical centers.

Auburn University is an EEO/Vet/Disability Employer and committed to building an inclusive and diverse community.

Scott R. Santos Professor and Chair, Department of Biological Sciences, Cell and Molecular Biosciences Peak Program & Molette Biology Laboratory for Environmental and Climate Change Studies Auburn University 101 Life Science Building, Rm. 101E Auburn, AL 36849 Tele # (334) 844-7410 Fax # (334) 844-1645 Email: [santos@auburn.edu](mailto:santos@auburn.edu) <http://www.auburn.edu/~santosr/>

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## AuburnU BioInformaticsStatistics

Faculty Position in Statistics/Biostatistics

Department of Mathematics and Statistics College of Sciences and Mathematics Auburn University

The Department of Mathematics and Statistics at Auburn University is seeking to fill a nine-month tenure-track Assistant Professor position in the area of Statistics or Biostatistics to begin August 16, 2019. Applicants must have a Ph.D. or equivalent degree in Statistics, Biostatistics or a closely related field with research emphasis on Bioinformatics at the time employment begins. Postdoctoral research experience with an interdisciplinary research component and strong computational skills are desirable.

The department has a PhD program and various MS programs. It has around 50 mathematicians/statisticians and more than 120 graduate students engaged in research in a wide variety of areas in mathematics and statistics. The department is especially interested in candidates who can contribute to the excellence of the academic community, teaching, and research. Auburn University's strong research programs in diverse academic areas present many opportunities for interdisciplinary research and for participation in multidisciplinary programs.

Candidates must submit their application material online through Auburn University job website:

<https://aufacultypositions.peopleadmin.com/postings/3209> . Applications must include a cover letter, transcript(s), curriculum vita, teaching statements, research statements, and contact information for three professional references. Inquiries should be addressed to Dr. Ulrich Albrecht (Attn. Statistics/Biostatistics hiring) Professor and Interim Chair, Department of Mathematics and Statistics Auburn University Auburn, AL 36849-5310. Phone: 334-844-4290; Fax: 334-844-6555. Review of applications will begin January 2, 2019 and continue until the position is filled. The candidate selected for this position must be able to meet eligibility requirements for work in the United States at the time the appointment is scheduled to begin and continue working legally for the proposed term of employment. Candidates must possess excellent written and interpersonal communication skills.

Auburn University is an EEO/Vet/Disability Employer and committed to building an inclusive and diverse community.

abebeas@auburn.edu

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## BrownU DataScience

The following opportunity could plausibly include individuals working in genomics and evolution! Please consider and/or forward as appropriate.

### Description

The Data Science Initiative at Brown University seeks applications for several tenure-track assistant professor positions in the area of data science. Successful candidates will be faculty in the Data Science Initiative with their tenure home in a Brown department. The start date for these positions is July 1, 2019.

Brown's Data Science Initiative (DSI) serves as a campus hub for research and education in data science. Engaging partners across campus and beyond, DSI facilitates and conducts both domain-driven and fundamental research in data-science, educates the next generation of data scientists, and explores the impact of the data revolution on culture, society, and social justice.

### Qualifications

We seek candidates who can connect with the departments of Applied Mathematics, Biostatistics, Computer Science, or Mathematics, or other relevant units at Brown. We are particularly interested in candidates who work on the foundations of data science, societal impact of data science, or have a strong interdisciplinary orientation. A strong research record and teaching skills are required.

### Application Instructions

To apply for these positions, please submit the relevant materials (curriculum vitae, concise research and teaching statements, and three letters of recommendation, with at least one letter addressing the applicants teaching abilities) online.

To receive full consideration, complete applications should be received by December 3, 2018. Applications received after this date may still be considered at the discretion of the search committee.

Inquiries about these positions should be addressed to dsi-info@brown.edu.

### Equal Employment Opportunity Statement

Brown University is committed to fostering a diverse and inclusive academic global community; as an EEO/AA employer, Brown considers applicants for employment without regard to, and does not discriminate on the basis of, gender, race, protected veteran status, disability, or any other legally protected status.

“Weinreich, Daniel” <daniel.weinreich@brown.edu>

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## BrownU EvolutionaryBiology

Department of Ecology and Evolutionary Biology Brown University

Assistant Professor in Organismal Biology

The Department of Ecology and Evolutionary Biology at Brown University seeks to fill a tenure track, Assistant Professor position for an organismal biologist who uses integrative approaches to address questions in an evolutionary comparative context.

The successful candidate is expected to establish a vigorous, externally funded research program and to teach courses that contribute topics in organismal biology to the graduate and undergraduate curriculum. Applicants whose research program can take advantage of resources such as the Brown University Herbarium, greenhouse facilities, the Keck XROMM facility, as well as interdisciplinary centers including the Institute at Brown for Environment and Society, the Data Science Initiative, the Center for Computational Molecular Biology, will be most competitive. Qualifications for the position include a PhD degree in biology or related fields; postdoctoral experience is preferred. To apply, applicants should submit: a cover letter, curriculum vitae, separate statements of research goals, teaching goals, and approaches for how the applicant will advance Brown's goals of diversity and inclusion, plus three representative publications. All documents should be submitted online through the Interfolio system [<http://apply.interfolio.com/55908>]. In addition, letters of support from three references should be submitted through the Interfolio systems by the respective letter writers. Review of applications will begin November 15, 2018 and will continue until the position is filled. The anticipated start date is July 1, 2019.

Brown University is committed to fostering a diverse and inclusive academic global community; as an EEO/AA employer, Brown considers applicants for employment without regard to, and does not discriminate on the ba-

sis of, gender, race, protected veteran status, disability, or any other legally protected status.

David M. Rand Stephen T. Olney Professor of Natural History Chair, Department of Ecology and Evolutionary Biology Box G-W, 80 Waterman Street Brown University, Providence, RI 02912 Phone: (401) 863-2890 (Office - Walter Hall 202) (401) 863-1063, or -6378 (Lab - BioMed Center 516-518-523) [www.davidrandlab.org](http://www.davidrandlab.org) <https://vivo.brown.edu/display/drand> <https://www.brown.edu/research/projects/computational-biology-of-human-disease/>

“Rand, David” <david\_rand@brown.edu>

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## CaliforniaStateU DominguezHills EvolutionaryMarineBiol

\* Search for Tenure Track Faculty Position in Marine Biology

[https://cmshr.csudh.edu/psc/-HDHPRD/EMPLOYEE/HRMS/c/-HRS\\_HRAM.HRS\\_CE.GBL?Page=-HRS\\_CE\\_HM\\_PRE&&](https://cmshr.csudh.edu/psc/-HDHPRD/EMPLOYEE/HRMS/c/-HRS_HRAM.HRS_CE.GBL?Page=-HRS_CE_HM_PRE&&) CSU Dominguez Hills, Department of Biology offers an exciting opportunity for a tenure-track Assistant Professor position in Marine Biology, beginning August 2019.

We are seeking a marine biologist who can teach biology and conduct research with undergraduates and Master's students. Teaching responsibilities may include general education, introductory biology, non-majors courses, as well as upper-division and graduate courses in the candidate's specialty. The position requires the establishment of an active independent research program, as well as service to the university. The candidate will be encouraged to develop a collaborative partnership with COAST (CSU Council on Ocean Affairs, Science and Technology). The candidate may have the opportunity to work with the Center for Innovation in STEM Education (CISE) to innovate K-16 education.

The Biology Program at CSU Dominguez Hills is designed to provide students with intensive progressive and balanced learning experiences in cell and molecular biology, organismal biology, population and community biology, and environmental science.

CSU Dominguez Hills is a federally recognized Hispanic-Serving Institution.— Class sizes are small as compared with large research universities and classes are taught

by the faculty, not by teaching assistants.— Many of the university's students are the first in their families to earn a university degree.— While the university enrolls traditional full-time students, many students enroll part-time and attend late afternoon, evening and weekend classes because of work and family responsibilities.

CSU Dominguez Hills offers 44 undergraduate majors, 22 master's degrees, and a number of certificate and credential programs.— Enrollment exceeds 14,600 students, and the student population is among the most ethnically and culturally rich in the nation: 64.3% Hispanic/Latino, 13.4% Black/African-American, 8.5% White, 10.2% Asian or Pacific Islander, 0.1% American Indian, and 3.1% two or more races.

ssinghal@csudh.edu

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## CaliforniaU Pennsylvania InvertebrateEvolution

Position: Assistant Professor of Invertebrate Zoology (Tenure Track) Position listing: [https://careers.calu.edu/applicants/jsp/shared/position/-JobDetails\\_css.jsp?postingId=157124](https://careers.calu.edu/applicants/jsp/shared/position/-JobDetails_css.jsp?postingId=157124) Position Type/Salary: This is a tenure-track faculty appointment in the department of Biological and Environmental Sciences. Salary is competitive and commensurate with academic preparation and experience.

An excellent fringe benefits package is included.

Job Summary/Basic Function: The successful candidate is expected to teach a variety of undergraduate courses for majors and non-majors which will include General Zoology, Design and Analysis, and courses in their area of expertise such as an upper level Invertebrate Zoology course. They will be responsible for developing an invertebrate teaching collection for the Department and an externally funded research program involving undergraduate students. In addition, they will be expected to assist in the development of research agendas and/or projects aligning with the mission and strategic plan of Cal U and enhancing the program agendas of the college and academic department. The successful applicant must be capable of and committed to teaching, community service and outreach, and to scholarship. The successful applicant must also have experience working with diverse populations. Additional responsibilities include involvement with departmental, college-wide, and university committees. Also, in accordance with the terms of the collective bargaining

agreement between the Pennsylvania State System of Higher Education and APSCUF, the successful applicant might be assigned to perform work at off-campus sites, in the evening/weekend and/or provide instruction through distance education.

**Required Skills, Knowledge and Abilities:** The candidate must be field ambulatory to lead field trips in the above mentioned courses.

In order to be a leading applicant in this search, in addition to the aforementioned requirements, the applicant minimally must be fluent in the English language, be able to communicate well, demonstrate outstanding potential for excellence in teaching through a successful interview and/or classroom demonstration and be experienced in the use of innovative curricular approaches that are student-centered, inquiry-based, and hands-on oriented.

**Minimum of Education and Training:** A Ph.D. in Zoology/Biology or related field is required by the time of employment, and college teaching experience is strongly preferred.

**Special Instructions to Applicants:** Applications accepted only online at <https://careers.calu.edu>. Physical applications will not be accepted. To be considered, applicants must submit the following: full curriculum vita; official transcripts from all colleges and universities attended (see below); letter of application highlighting the applicant's qualifications and teaching interests; 1-page statements describing research interests and teaching philosophy; and the names, addresses, phone numbers, and e-mail addresses of three current references who have knowledge of the applicant's abilities.

References will be checked. Background clearances are required and will be conducted on applicants being considered.

Unofficial transcripts acceptable for application, but official transcripts will be required for applicants being considered and due at the point of face-to-face on-campus interviews.

Veterans claiming preference should submit a copy of their DD214 to the Office of Social Equity, 250 University Avenue, Box 9, California, PA 15419.

Integrity, Civility and Responsibility are the official core values of California University of Pennsylvania, an affirmative action/equal opportunity employer. Women, minorities, veterans and persons with disabilities are encouraged to apply.

Dr. Summer J. Arrigo-Nelson Associate Professor Department of Biological and Environmental Sciences Box 45, 250 University Ave.

California University of Pennsylvania California, PA 15419-1394 Phone: (724) 938-5732 Fax: (724) 938-1514 Email: [arrigonelson@calu.edu](mailto:arrigonelson@calu.edu)

“Arrigo-Nelson, Summer” <[arrigonelson@calu.edu](mailto:arrigonelson@calu.edu)>

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## Claremont LabDirector EvolutionaryBiology

Integrated Science Laboratory Director

The W.M. Keck Science Department of Claremont McKenna College, Pitzer College and Scripps College invites applications for a full-time Interdisciplinary Lab Coordinator. The department, houses a wide spectrum of faculty members from the physical and life sciences, for three of the five undergraduate Claremont Colleges. It offers innovative and interdisciplinary programs in the natural sciences.

This position is responsible for the preparation and design of the laboratory curriculum for the department's Integrated Science laboratories, and teaching a number of those lab sections as specified each semester. Responsibilities also include updating laboratory curricula to match best practices in science education, and assessment of the educational effectiveness of the Integrated Science curriculum. This position may teach other departmental courses on an as-needed basis. A Masters or Ph.D. in science, preferably in an interdisciplinary field,

or experience bridging between Biology, Chemistry and Physics. Prior experience teaching and/or designing inquiry-based labs is preferred.

Please apply online at: [https://theclaremontcolleges.wd1.myworkdayjobs.com/en-US/CMC\\_Staff/job/Claremont/Integrated-Science-Lab-Director\\_REQ-1088](https://theclaremontcolleges.wd1.myworkdayjobs.com/en-US/CMC_Staff/job/Claremont/Integrated-Science-Lab-Director_REQ-1088) . Candidates should submit a current CV, a list of 3 references and a cover letter addressing how they are prepared to succeed in our diverse interdisciplinary teaching environment.

In a continuing effort to enrich its academic environment and provide equal educational and employment opportunities, the Claremont Colleges actively encourage applications from women and members of historically underrepresented groups in higher education. The Claremont Colleges are an equal opportunity employer.

Findley Finseth, Ph.D.

Assistant Professor of Biology Keck Science Department

Claremont McKenna, Pitzer, and Scripps Colleges Claremont, CA 91711 email: ffinseth@kecksci.claremont.edu website: [www.findleyfinseth.com](http://www.findleyfinseth.com) office: 909 621 8569

“Finseth, Findley” <findleyransler@gmail.com>

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## ClemsonU 5 HumanGenetics

### \*Clemson University Cluster Hire in Human Genetics\*

Clemson University invites applications for five tenure-track Assistant Professor positions at the new Center for Human Genetics, with an expected start date of August 2019.

The positions are broadly defined and will include individuals who use statistical, computational, bioinformatic, genetic, genomic and comparative evolutionary approaches to explore the genetic and environmental basis of human health and disease, and promote precision medicine. Areas of research may include 'V but are not limited to 'V genomic prediction, the role of gene-gene and gene-environment interactions in human genetics and methods to detect such interactions, \*de novo \*regulatory network construction, integration of data across many levels of biological organization, explicitly modeling variants of unknown significance from clinical sequencing in model systems, including cell lines, and expanding human genomic studies to include whole genome sequencing and discovery of regulatory variants affecting health and disease.

The Center for Human Genetics is housed in Self Regional Hall, a new 17,000-square-foot building located in Greenwood, South Carolina on the campus of the Greenwood Genetic Center. The Center for Human Genetics is ideally configured for collaborative research with excellent bioinformatics facilities and state-of-the-art molecular laboratories. The Center for Human Genetics and the Greenwood Genetic Center are well-equipped for genomics, proteomics and metabolomics research, including a NovaSeq 6000 sequencer.

Successful applicants will be part of a collaborative and interdisciplinary environment that includes the research, diagnostic and clinical geneticists at the Greenwood Genetic Center, the genetics, genomics, statistics and bioinformatics faculty at Clemson University, the USC School of Medicine in Greenville and the Greenville Health System. The home department will be determined by the fit of the applicant's research interests with the mission of one of the departments

in the College of Science ( [www.clemson.edu/science](http://www.clemson.edu/science)), including the Department of Genetics and Biochemistry ( [www.clemson.edu/science/departments/-genetics-biochemistry/index.html](http://www.clemson.edu/science/departments/-genetics-biochemistry/index.html)), the Department of Mathematical Sciences ( [www.clemson.edu/science/-departments/mathematical-sciences/index.html](http://www.clemson.edu/science/-departments/mathematical-sciences/index.html)) and the Department of Biological Sciences ( [www.clemson.edu/science/departments/biosci/-index.html](http://www.clemson.edu/science/departments/biosci/-index.html)).

Clemson University is South Carolina's public land-grant University. As a Carnegie R1 Institution, the University has excellent research resources including the globally ranked Palmetto Cluster high performance computing cluster; Sciences Genomics and Bioinformatics Facility; state-of-the-art light microscopy, electron microscopy, animal, or fish facilities; a multi-user analytical laboratory and metabolomics core; and the Campbell Museum of Natural History.

The University and Center for Human Genetics are committed to building a diverse and inclusive community of faculty scholars dedicated to working and teaching in a multi-cultural environment ( <http://www.clemson.edu/-inclusion/>). We encourage applications from women, minorities and individuals with a commitment to mentoring colleagues and students from demographic groups underrepresented in the sciences. We are also supportive of the needs of dual-career couples.

Successful candidates must hold a doctoral degree and have postdoctoral experience. Competitive candidates will demonstrate an ability to develop a vigorous and independent, externally funded and nationally recognized research program; demonstrate teaching excellence and a commitment to diversity inclusion; and participate in relevant undergraduate and graduate education programs.

Applicants should submit the following items via Interfolio at [apply.interfolio.com/55538](http://apply.interfolio.com/55538): (1) cover letter; (2) Curriculum Vitae; (3) statement of research interests including future plans; (4) statement of teaching interests and experience; (5) statement describing past experience and/or future plans to promote diversity and inclusion; and (6) up to three reprints in one PDF. Applicants should also arrange, through Interfolio, the submission of three confidential letters of recommendation on their behalf.

Inquiries should be directed to Dr. Trudy Mackay ([tmackay@clemson.edu](mailto:tmackay@clemson.edu)).

For full consideration, applications should be submitted by November 5, 2018. Review will continue until the positions are filled.

\*Clemson University is an AA/EEO employer and does

not discriminate against any person or group on the basis of age, color, disability, gender,

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## ColoradoStateU LabManager ConservationGenomics

The Ruegg Lab at Colorado State University is seeking a highly organized, enthusiastic, and motivated scientist to fill a Conservation Genomics Laboratory Manager position. The successful candidate will work closely with our multi-disciplinary team of technical staff, graduate students, senior researchers, post-docs and faculty within the Biology Department at Colorado State as well as part of the multi-institutional Bird Genoscape Project (<https://birdgenoscape.org>). Duties will include developing RAD (Restriction Site Associated DNA) and whole genome sequencing libraries, DNA extractions, ordering, SNP genotyping, equipment maintenance, curating feather, blood, and tissue sample collections, renewing permits and maintaining compliance with environmental and safety procedures. For more information on our research please see the Bird Genoscape Project website (<https://birdgenoscape.org>) as well as the Ruegg lab website: <https://sites.google.com/rams.colostate.edu/~ruegglab/home> Interested applications should contact Kristen Ruegg (Kristen.Ruegg@colostate.edu) with a cover letter, resume, and contact information for 3 references. In the cover letter please highlight your previous laboratory experience and your interest in conservation genomics.

Preferred start date is Nov, 2018, but is open to negotiation; Initially, the appointment will be for a period of 12 months, with the possibility of extending it to 2 years or more dependent upon performance and the availability of research funds.

Kristen.Ruegg@colostate.edu

## CONABIOMexico BioinformaticsSoftwareDevelopment

Hi EvolDir,

We are developing a platform to integrate data on genetic and agricultural diversity into CONABIO's biodiversity information system. This type of data is normally published as files with arbitrary formats that are difficult to relate to each other and that become obsolete with the passage of time. This restricts the usefulness of data to generate knowledge beyond the immediate project for which they were generated. There are public databases specialized in this type of data (e.g., NCBI, EBI, TAIR), but they do not store all the information of interest for CONABIO and are separated from other useful information (e.g. geolocation, environmental variables, phenotypic measurements).

The goal of CONABIO is to provide a standardized and modular platform that allows to store, manage and retrieve data easily and quickly. For this, data models that can cover complex data belonging to the same concept will be defined and repeated within the projects. The platform is being implemented using GraphQL accessible via HTTP and a graphical interface. The programming language is NodeJS.

We have software developer open position to join a Mexican-German team working in the project mentioned above. The job is based at Mexico City, but there is flexibility for remote working. Understanding of written Spanish is required. The call for applications is directed to candidates with a computing science background, but biologist or other fields with strong bioinformatics are also encouraged to apply.

Full details and requirements are available at the following link <http://www.conabio.gob.mx/web/pdf/trabajo/-DesarrolloSWBioInfoII.pdf> Cheers,

Alicia

Dra. Alicia Mastretta-Yanes Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO) [www.mastrettayanes-lab.org/](http://www.mastrettayanes-lab.org/) [www.gob.mx/conabio](http://www.gob.mx/conabio) [www.biodiversidad.gob.mx](http://www.biodiversidad.gob.mx) México

Alicia Mastretta <ticatla@gmail.com>

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## Cornell Evolutionary EnvMicrobiology

Environmental Microbiology Faculty Position at Cornell University

The Department of Microbiology at Cornell University (<https://micro.cornell.edu>) invites applications for a tenure-track position at the assistant or early associate professor level in environmental microbiology. Microorganisms drive the foundational processes upon which all life on Earth depends. Understanding these processes at a fundamental level can help inform sustainable and practical approaches to maintain healthy ecosystems. The successful applicant will develop a well-funded, internationally recognized, innovative research program in environmental microbiology. Examples of relevant research topics include, but are not limited to, microorganisms that govern biogeochemical cycles, microbial biotransformations and biodegradation, aquatic and terrestrial microbial community ecology, as well as mechanistic studies of how microbial populations sense, respond to, and ultimately alter environments. The ideal program will embrace a combination of molecular, genetic, physiological and/or data-intensive approaches [e.g. (meta)genomics, (meta)transcriptomics, and (meta)proteomics] to develop a mechanistic understanding of microbial systems in an environmental context. The applicant will be expected to teach in the general area of environmental microbiology and will contribute to both the Microbiology major and to the Environmental and Sustainability Sciences major. The position will have 50% teaching and 50% research responsibilities on a 9-month academic year basis.

Qualifications: Ph.D. in Microbiology or related discipline and a minimum of two years post-doctoral experience. A well-qualified candidate is expected to have a record of peer-reviewed publication in environmental microbiology or a related field. The candidate must be able to work in a multi-disciplinary, multi-cultural setting and create a collegial professional environment.

Applications and Starting Date: Apply through Academic Jobs Online (<https://academicjobsonline.org/-ajo/jobs/11957>).

Candidates are asked to submit: 1) a cover letter briefly summarizing your background and qualifications; 2) a statement of research interests (3-page maxi-

mum); 3) a teaching statement outlining experiences, philosophy and interests (2-page maximum); 4) a diversity statement < <https://cals.cornell.edu/about/-leadership/ofa/hr/statement-contribution-diversity-equity-and-inclusion/> > of how through your research, teaching and/or service, you can contribute to diversity, equity and inclusion in support of Cornell's mission of 'any person any study'; 5) a detailed curriculum vitae, and 6) the names and contact information for three references (letters will be requested after applications have been reviewed).

Inquiries may be sent to Professor Esther Angert, Search Committee Chair ([era23@cornell.edu](mailto:era23@cornell.edu)). Initial screening of applications will begin November 1, 2018 and continue until the position is filled. Anticipated starting date is July 1, 2019.

"Esther R. Angert" <[era23@cornell.edu](mailto:era23@cornell.edu)>

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## CornellU ComputationalBiology

Faculty Position Available in Computational Biology Assistant/Associate Professor, Tenure-track Cornell University, Ithaca, New York 14853

Position description: The Department of Biological Statistics and Computational Biology at Cornell University (<https://bscb.cornell.edu/>) invites applications for a tenure-track position at the assistant or associate professor level in the area of Computational Biology, with an emphasis in population genomics, comparative genomics and/or functional genomics. The position will have responsibilities 70% in research and 30% in teaching on a 9-month academic year basis. Applicants will be expected to focus on developing and applying rigorous computational methods to large-scale data analysis in population, comparative, or functional genomics and will play a central role in the departments program in research and teaching.

Cornell is hosting a campus-wide expansion in genomics faculty recruiting, spearheaded by the Provosts Task Force in Genome Biology. A cluster of 5 tenure-track faculty positions will be opening over the next 3 years at the Assistant or Associate Professor level. In addition to newly-hired faculty, faculty from several related departments will join the Department of Computational Biology, to be launched soon, and the Faculty of Computing and Information Science. Prior to the launch of the Department of Computational Biology, the successful candidate would also affiliate with the Department

of Biological Statistics and Computational Biology.

Cornell University has a broad teaching mission including introductory service courses in bioinformatics and more specialized and advanced courses for students in computational biology and related fields. The selected candidate will be expected to teach a 3 or 4 credit course each year and a 1-credit seminar course. Specific teaching responsibilities will be negotiated with the department chair as curriculum needs evolve.

**Qualifications:** A PhD in computational biology, computer science, computational statistics, or a related field and a primary interest in understanding biological phenomena through the development and use of computational and statistical methods. Postdoctoral experience with a demonstrated record of productivity is required. Training in computer science or computational statistics, with experience in applications in population genetics, comparative genomics, functional genomics, or systems biology is expected. Outstanding applicants in all areas of computational biology will be considered, but research areas of special interest include comparative and population genomics; functional genomics; gene regulation; modeling dynamic cellular processes; and networks in biological systems.

**Salary and Benefits:** Competitive and commensurate with qualifications and experience. An attractive fringe benefit package is included.

**Applications and Starting Date:** Anticipated starting date is July 1, 2019 or as negotiated. Candidates should submit a cover letter, curriculum vitae, research and teaching statements, statement of diversity, equity, and inclusion and arrange to have three reference letters submitted to Academic Jobs Online at <https://academicjobsonline.org/ajo/jobs/12365>. Inquiries may be sent to Andrew Clark, Search Committee Chair, [ac347@cornell.edu](mailto:ac347@cornell.edu). Initial screening of applications will begin November 30, 2018 and continue until the position is filled.

Please go to <https://bscb.cornell.edu/> for information on the position and background about computational genomics at Cornell.

**Opportunity:** The new faculty member will join a collaborative, interdisciplinary community on the main campus in Ithaca, New York. Cornell University is an innovative Ivy League university and a great place to work. Our inclusive community of scholars, students and staff impart an uncommon sense of larger purpose and contribute creative ideas to further the university's mission of teaching, discovery and engagement. Cornell's global presence includes the medical college's campuses on the Upper East Side of Manhattan and Doha, Qatar,

as well as the Cornell Tech campus on Roosevelt Island in the heart of New York City.

Cornell University seeks to meet the needs of dual career couples, has a Dual Career program and is a member of the Upstate New York Higher Education Recruitment Consortium to assist with dual career searches. Visit <http://www.unyherc.org> to see positions available in higher education in the upstate New York area. The Cornell community embraces diversity and inclusion. We value AA/EEO, Protected Veterans and Individuals with Disabilities, and seek candidates who will create a climate that attracts persons of all races, ethnicities and genders.

Andrew Clark Search Committee Chair  
[ac347@cornell.edu](mailto:ac347@cornell.edu)

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## CSU Monterey Bay TT PlantPathology

Our program has just opened a search for a tenure-track plant pathologist and we encourage all qualified applicants, especially those from groups traditionally under-represented in the sciences, to apply.

Regards, Nate Jue

Plant Pathology Faculty Position at California State University, Monterey Bay

The Biology program School of Natural Sciences (SNS) at California State University Monterey Bay (CSUMB) invites applications for a tenure-track faculty position at the assistant professor level, of plant pathology, to begin in Fall 2019. We seek applicants with a demonstrated commitment to teaching and research. The successful candidate will collaborate with other faculty and professional outreach programs that leverage our unique location in California's Salinas Valley, existing connections to the USDA Agricultural Research Service, outstanding grower cooperators, and area community college agriculture programs.

**Position Descriptions:** - Teach an upper-division plant pathology course and associated lab, teach the plant



structure and function portion in the majors biology sequence, and other courses that may include plant physiology, mycology or virology, plant science, environmental biotechnology or microbiology - Employ innovative teaching and learning techniques that engage diverse students through active learning, course-based research, and the appropriate use of technology - Develop and maintain a research program that provides opportunities for undergraduates - Pursue and obtain extramural funding to support an active research program that makes use of and expands CSUMB's agricultural connections and assets in the Monterey Bay/Salinas Valley region - Sustain scholarly research in plant pathology leading to publications and professional visibility - Contribute to the development of curriculum and courses to support the Biology major, as well as a possible future plant science concentration in biology and a proposed Agricultural Crop and Soil Science program

Minimum Qualifications: - Ph.D. in Plant Pathology, Biology, Microbiology, Plant Science, or related field at time of hire; Commitment to and experience in teaching undergraduates; Expertise in plant pathology, particularly the use of molecular diagnostic; Excellent written and oral communication skills

Preferred Qualifications - Demonstrated expertise in plant pathology. Expertise in diseases of specialty crops, microbial ecology, and/or metagenomics are a plus - Research interests that leverage CSUMB's ideal location in California's Salinas Valley, the 'salad bowl of the world' - Research and teaching interests and expertise that complement and strengthen those of existing faculty in the department - Strong interest in teaching an upper division course in plant pathology, as well as courses in plant biology, microbiology, and other agriculture related topics - Interest in mentoring undergraduate student research and/or internships - Strong interest in contributing to lower division biology education as well as specialty upper division courses. - Demonstrated experience with course and curriculum development - Proven ability and desire to mentor and teach students from diverse cultural, ethnic, educational, and economic backgrounds - Record of external funding and writing grant proposals - Demonstrated leadership skills

California State University, Monterey Bay (CSUMB) is a comprehensive public university committed to serving the culturally and linguistically diverse people of California, especially the working class, historically underserved, and low-income populations. The School of Natural Sciences at CSUMB offers B.S. degrees in Biology, Environmental Science, Technology and Policy, and Marine Science, a B.A. in Environmental Studies and graduate programs in Marine Science and Environmental Science. These programs all emphasize the critical

thinking and technical skills necessary to train students in the biomedical, environmental, and agricultural workforce, succeed in high level graduate programs in the biosciences, and solve complex environmental problems. Additional information about our rigorous and highly successful interdisciplinary program can be found at <http://csumb.edu/naturalsciences> . The person holding this position is considered a 'mandated reporter' under the California Child Abuse and Neglect Reporting Act and is required to comply with the requirements set forth in CSU Executive Order 1083 as a condition of employment. The incumbent is required to maintain confidentiality as outlined in the Department of Education's Family Educational Rights and Privacy and California's Educational Code Chapter 13 regarding sensitive student issues. All offers of employment are contingent upon the successful completion of a background check (including a criminal records check).

How to Apply For full consideration, submit: a) an application, b) curriculum vitae c)

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## EmporiaStateU Genetics MolecularEcology

The—Department of Biological Sciences at Emporia State University in Emporia, KS, invites applications for a nine-month, tenure-track position at the rank of Assistant Professor, to begin August 2019. We are especially interested in candidates with expertise in wildlife, human, or landscape genetics, and whose research addresses questions of broad biological interest. Salary starts at \$50,000, commensurate with experience and qualifications.

Responsibilities: The successful candidate will be expected to teach a general genetics course with laboratory, and upper-level courses in population genetics and/or human genetics and genomics. She or he will also be encouraged to develop new courses in her or his area of expertise. Faculty members typically teach 12 contact hours (or equivalent) per semester. The successful candidate will also be expected to develop an active research program, including the supervision of graduate

(M.S.) and undergraduate research, and she or he will be encouraged to apply for extramural funding. Dedicated research space and startup funds are offered with the position.

Qualifications: A Ph.D. and relevant research experience are required by the start date. Postdoctoral experience and/or teaching experience are desirable.

To Apply: Please submit: (1) a cover letter with contact information; (2) a CV; (3) a statement of teaching philosophy; (4) a statement of research interests; and (5) the names of three references including address, telephone number, and email address. All materials should be emailed to: Dr. Darren Rebar, Search Committee Chair, Department of Biological Sciences, Campus Box 4050, Emporia State University, 1 Kellogg Circle, Emporia, KS 66801-5415. Telephone: 620-341-5614; Fax: 620-341-5607; e-mail:—mailto:drebar@emporia.edu—

We will begin reviewing complete applications on Nov 9, 2018, and continue until the position is filled.

Emporia State University is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to age, race, color, national origin, ethnicity, religion, gender, sex, gender identity, gender expression, marital status, parental status, sexual orientation, genetic information, status as an individual with a disability, status as a protected veteran, or any other factors which cannot be considered by—<http://www.emporia.edu/humres/jobs/federal-employment-notice.html>. About the University: Emporia State University is a small public university (~6,500 students) located in the beautiful Flint Hills region of Kansas. The university has built its reputation on quality teaching, research, and service, and strives to keep classroom sizes small to promote high-impact learning experiences. Please visit the ESU website (<http://www.emporia.edu/>) and the departmental website (<http://www.emporia.edu/biosci>) for more information.

“drebar@emporia.edu” <drebar@emporia.edu>

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## FordhamU EvolutionaryBiol

Ecology Faculty Position. Fordham University. Applications are invited for a tenure-track position at the Assistant Professor level in the Department of Biological Sciences at Fordham’s Rose Hill Campus in the Bronx for Fall 2019. The successful applicant will support the inter-

disciplinary undergraduate Environmental Science major offered jointly by the Departments of Biological Sciences, Chemistry, Natural Sciences, Physics, and Mathematics. Applicants will also contribute to the Biological Sciences Department’s vibrant MS and PhD graduate programs. Applicants will have a Ph.D. in a life or environmental science, or related field, and are expected to have substantial research skills and a strong publication record. Commitment to excellence in teaching and mentoring is required. The successful applicant is expected to establish a strong research program that attracts external funding and involves undergraduate and graduate students. The Department provides excellent research facilities, start-up funds, 9-month salary support and benefits. We also offer opportunities to collaborate with faculty at the Louis Calder Center - Biological Field Station ([www.fordham.edu/calder\\_center](http://www.fordham.edu/calder_center)) and scientists at the New York Botanical Garden ([www.nybg.org/plant-research-and-conservation/tour/graduate-studies/](http://www.nybg.org/plant-research-and-conservation/tour/graduate-studies/)). For more information about the department, see <https://www.fordham.edu/biology>. Information about the environmental science program can be found here <https://www.fordham.edu/info/20926/environmental-science>. Applicants should email a single PDF application file containing a cover letter, curriculum vitae, contact information for three references, research and teaching statements and three reprints to: pmeneses@fordham.edu. Address the cover letter to Dr. PI Meneses, Chair, Department of Biological Sciences, Fordham University, Bronx, NY 10458. Review of applications will begin October 22nd, 2018.

Fordham University is an independent, Catholic University in the Jesuit tradition that welcomes applications from all backgrounds. As Fordham’s student body becomes increasingly diverse, we are committed to being a leader in growing academic excellence by the recruitment and retention of a diverse and inclusive faculty, administration, and staff. Fordham is an equal opportunity/equal access/affirmative action institution.

Steven J Franks

Professor

Department of Biology

Fordham University

Bronx, NY 10458

Lab website- <http://sfrankslab.wordpress.com>

Project Baseline- <http://www.baselineseedbank.org>

“franks@fordham.edu” <franks@fordham.edu>

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## George Washington U Software Engineer

Research Associate, Software Development (Software Engineer)

Computational Biology Institute, The George Washington University, Washington, D.C.

<http://www.gwu.jobs/postings/55341> Job Description Summary:

The Computational Biology Institute (CBI) is seeking a Research Associate in Software Development to contribute to ongoing research projects and developing diverse tools for analyzing omic data. The successful candidate will have a background in computer science and informatics, and will have programming experience in Python, C/C++, JAVA, and/or R. This position will report to the Director of CBI.

Responsibilities include:

- Manage the development of new software modules - Lead communication efforts with members of the Institute to understanding existing needs and forecast the future requirements of software developing, - Develop educational modules, tutorials, and workshops for training purposes - Develop and manage databases and interface for DNA sequence analysis, and develop and implement tools for omics analysis within a comprehensive pipeline framework. - Performs other related duties as assigned. The omission of specific duties does not preclude the supervisor from assigning duties that are logically related to the position.

Minimum Qualifications:

Qualified candidates will hold a master's degree and 1 year of experience in a related discipline. Degree must be conferred by the start date of the position.

Preferred Qualifications:

A Bachelor's in computer science or a related field is required, or an equivalent combination of education, training and experience. Master's in computer science or related field is preferred, with two years experience. The successful candidate will have experience in multiple programming languages with some applications to bioinformatic analyses. Experience with clinical health data is also a plus.

- \*Alexander Hopkins-Ives, M.S.\* \*Assistant Director\*

Computational Biology Institute Milken Institute School of Public Health The George Washington University  
45085 University Drive, Suite 305 Ashburn, VA 20147

\*Doctoral Student in Higher Education Administration\*  
Graduate School of Education and Human Development  
The George Washington University

aives@gwu.edu <aives@email.gwu.edu> Office: (571) 553-0146 Fax: (202) 242-0068

Alexander Ives <aives@email.gwu.edu>

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## George Washington U Vertebrate Comparative Physiology

The George Washington University: Tenure-track Faculty Position in Vertebrate Physiology Department of Biological Sciences

The Department of Biological Sciences at the George Washington University (GWU) invites applicants for a tenure-track faculty position in Vertebrate Physiology at the rank of Assistant Professor, to begin as early as Fall 2019 Semester. The successful candidate will be expected to establish and maintain an externally funded research program that integrates undergraduate and graduate students. The successful candidate will also strengthen our multidisciplinary teaching program, by teaching a Physiology course (or co-teaching an Anatomy and Physiology course) with a laboratory component.

Office, laboratory, and animal space will be located in the GWU Science and Engineering Hall that opened in January 2015 (<http://seh.gwu.edu/about-science-and-engineering-hall>). Our location in Washington, DC offers superior undergraduate and graduate learning opportunities through access to the Smithsonian's National Museum of Natural History, the National Zoo, The National Institutes of Health, and a consortium of DC-area universities, as well as the recently created Computational Biology Institute at GWU.

Required Qualifications: A completed PhD and post-doctoral training in an appropriate discipline as well as research accomplishments, as demonstrated by peer-reviewed publications in high quality journals.

Application Procedure: To be considered, please complete an online faculty application at <http://www.gwu.jobs/postings/56213> and upload the following documents: (i) a cover letter describing interests and

qualifications for the position; (ii) a curriculum vitae including a full list of publications; (iii) brief research and teaching statement; (iv) three recent publications. Letters of recommendation from referees will be requested at a later stage for candidates advancing to the second stage of the process. Only complete applications will be considered.

Review of applications will begin on October 25, 2018 and continue until the position is filled, pending final budgetary approval. Employment offers are contingent on the satisfactory outcome of a standard background screening.

The George Washington University is an Equal Employment Opportunity/Affirmative Action employer that does not unlawfully discriminate in any of its programs or activities on the basis of race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity or expression, or on any other basis prohibited by applicable law.

Please contact Dr. Patricia Hernandez (phernand@gwu.edu), Chair of the Vertebrate Physiology Faculty Search Committee, with any questions.

Guillermo Orti <gorti@email.gwu.edu>

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## Halle Germany EvolutionaryEcol

This is a re-advert (extended deadline) for a position designed to attract evolution-oriented animal ecologists.

A full chair (tenured professorship) in Animal Ecology with a focus on molecular ecology is available from 01.04.2019 at Martin-Luther-University Halle-Wittenberg, Germany. We seek to appoint an internationally recognized scientist with a focus on the molecular ecology of insects. The successful candidate should hold a PhD and strengthen well-established research areas at the German Center for Integrative Biodiversity Research Halle-Jena-Leipzig (iDiv: <http://www.idiv.de>).

The candidate will have extensive experience both in conducting independent scientific research and in undergraduate and graduate education. Courses to be taught include all aspects of animal ecology. Requirements for application include 'habilitation' or an equivalent academic achievement (e.g. publication record as independent researcher after the PhD, PhD student supervision, and teaching experience), a proven track-record in internationally recognized research and appropriate teaching experience. Experience in the acquisition of third party

funding is expected, as is knowledge of German, or a willingness to learn. Applications, including a cover letter, complete list of publications and academic teaching activities, evidence of successful acquisition of third party funding, and copies of certificates of the highest academic degree obtained, should be sent as a single pdf file via email (Dekanat.bpn@natfak1.uni-halle.de) not later than 15th November 2018.

Further details of the position are at: <https://www.academics.de/jobs/professur-w3-fuer-tieroekologie-martin-luther-universitaet-halle-wittenberg-halle-saale-163976> Robert Paxton <robert.paxton@zoologie.uni-halle.de>

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## LMU Munich ResearchProgrammer

Programmer Position: Supporting development of RevBayes

### Final week for applications ###

I invite applications for a programmer (software developer) position to support the development of our software RevBayes in my research group at the GeoBio-Center of the Ludwig-Maximilians-Universität (LMU), München. The position is funded by the DFG Emmy Noether program, and is initially available for 2 years, with a further 3 years of funding available dependent on progress and interests. The position should start on 1 January 2018 or as soon as possible thereafter.

My group is broadly working on theory and computational methods for Bayesian inference of phylogeny (<http://www.evol.bio.lmu.de/research/hoehna>). All of our methods are implemented in the open-source program RevBayes (<http://www.RevBayes.com>). The successful applicant will be part of our vibrant RevBayes group and will contribute to further development of the program. There will be opportunities for the successful applicant to work with and visit the research groups of my collaborators in Europe and the USA. Furthermore, I expect the candidate to become actively involved in our RevBayes workshops and hackathons.

Potential tasks of the programmer include:

§Support of algorithm development within the group (faster and memory efficient).

§Development of distributed algorithms (using MPI).

§GUI development

§Unit testing on TravisCI

§Developing and managing an automatic system for releases on different platforms.

§User support and bug fixes.

Applicants should have either a Master's degree or a PhD, completed or completion imminent, in computer science or a related field. The key skills required are proficiency in C++ programming and good communication skills (oral and written English). The successful applicant needs to work well in an academic environment with 10-20 software developers distributed across the world.

The position will be compensated according to the standard DFG salary scheme (TVL-E13 to E14 based on prior experience), that is, the position will be based in the German public sector and the actual salary will depend on the candidate's background. The salary includes benefits such as health care, pension, unemployment insurance and child support (if applicable). The working times are flexible and the position comes with all standard German benefits (30 days paid vacation per year, paid sick leave, etc.). We work at the GeoBio-Center which is located at the KÄÄand is in walking distance to the historic city center (Marienplatz) and English Garden (city park with 3.75 km' area). The GeoBio-Center is highly interdisciplinary and consists of researchers from different departments including paleontology, molecular and evolutionary biology, zoology and botany.

Further information can be found at <http://www.evol.bio.lmu.de/research/hoehna>, and questions should be directed to Sebastian HÄÄ (phyloinformatics@gmail.com). Applications, including a current CV, letter of motivation (1 page) and names and contact details of two referees should be sent to Sebastian HÄÄ before the deadline of 31 October 2018. The review process will begin on November 1st and applications will be considered until the position is filled.

Sebastian Hoehna <phyloinformatics@gmail.com>

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### LouisianaStateU DataScienceBiologist

The Department of Biological Sciences and the Center for Computation and Technology at Louisiana State University jointly invite applications for a tenure-track Assistant Professor in Interdisciplinary Data Science

and Biology. The ideal candidate is a biologist conducting hypothesis-driven research with data science approaches. Although the position is open to all areas of biology, preference will be given to those candidates who actively develop cutting-edge data science techniques including, but not limited to, informatics, data mining, machine learning, artificial intelligence, statistics, and large-scale data visualization. This hire is part of a larger initiative to establish a university-wide program in Interdisciplinary Data Science.

To apply, please visit: <https://lsu.wd1.myworkdayjobs.com/LSU/job/LSU—Baton-Rouge/Assistant-Professor—Biological-Sciences—Tenure-Track-R00029285> Brant C Faircloth <brant@lsu.edu>

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### MichiganStateU LabManagerFishEvoDevoGeno

Lab Manager/Research Technician Position at Michigan State University

The Braasch Lab (aka Fish EvoDevoGeno Lab) in the Integrative Biology Department at Michigan State University (MSU IBIO) is looking to fill an immediate opening for a lab manager/research lab technician position. We are looking for an enthusiastic, highly motivated, and responsible individual to join our research team that use different fish species as model organisms to study the genomic basis of vertebrate development, evolution, and disease. The Braasch Lab focuses on genomic and developmental changes that contribute to major transitions during the course of vertebrate evolution and studies evolutionary novelties at the levels of genome structure, gene family evolution, and gene regulation. We combine comparative genomics with analyses of molecular evolution and functional genetic and developmental approaches using a variety of fishes as our model systems (zebrafish, medaka, spotted gar, killifishes, and others)

The ideal candidate will be expected to work as both lab manager (~50% time commitment) and research technician (~50%) and perform and document a variety of tasks in a timely, accurate and detailed manner, meet with the PI Ingo Braasch on a weekly basis and provide support to graduate students and postdocs in the lab. Primary duties may include, but are not limited to: perform experiments under supervision of laboratory head; provide support with molecular biology, next-generation sequencing, and developmental

biology projects; ordering supplies and equipment; lab supply and equipment maintenance and organization; maintaining and documenting lab cleanliness and safety standards; managing lab databases (such as plasmid database, antibody database); equipment maintenance; supervising and training undergraduate students, staff and volunteers.

This is a full-time appointment and offers excellent benefits (healthcare, dental, etc.). The initial appointment will be for a 6-month probationary period, after which yearly reappointments will be made for successful and productive candidates. Salary commensurate with experience.

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

For details and to apply, please go to <http://careers.msu.edu/cw/en-us/job/500081/research-technologist-i>. The posting number is 538133. Closing date for applying to this position is October 16, 2018. For questions related to this job posting, please email Ingo Braasch (braasch@msu.edu).

Follow us on twitter: @fishevodevogeno

— Dr. Ingo Braasch Fish Evo Devo Geno Lab Department of Integrative Biology College of Natural Science Michigan State University East Lansing, MI - USA

braasch@msu.edu

“Braasch, Ingo” <braasch@msu.edu>

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## MiddleTennesseeStateU EvolutionaryBiology

The Department of Biology at Middle Tennessee State University seeks to hire a tenure-track faculty member (#103070) at the rank of assistant or associate professor in the area of evolutionary biology. Start date for this position is August 1, 2019.

The successful candidate will be expected to mentor students (undergraduate, MS, and PhD) and establish an independent research program (laboratory and/or field research) that will gain national recognition. Teaching responsibilities may include courses in General Biology, Genetics, Evolution, Biosatistics, and/or organismal

courses in his/her area of expertise. The ability to contribute to courses in Entomology and Speciation is desirable but not required.

The Department of Biology has moved recently into a newly constructed 250,000 square foot science building that includes a greenhouse, an animal research facility, and ample laboratory research space. (Department of Biology information: <http://mtsu.edu/biology>).

The department hosts both a Master’s program and interdisciplinary doctoral program in Molecular Biosciences (MOBI). The hire will be expected to develop an extramurally-funded research program and provide evidence of productive scholarship appropriate to the applicant’s current career stage.

PhD in evolutionary biology or other relevant field is required by the appointment date.

Applicants with postdoctoral experience, a strong research record that includes impactful peer-reviewed publications and a level of grant funding that reflects high productivity at the applicant’s current career stage will receive special consideration.

For more information about the position or to apply, see: <https://mtsujobs.mtsu.edu/postings/7489> Sarah Bergemann Professor Middle Tennessee State University Biology Department PO Box 60 Murfreesboro TN 37132 Sarah.Bergemann@mtsu.edu

Sarah Bergemann <sarah.bergemann@gmail.com>

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## Namibia LabTech CheetahConservation

Genetics Laboratory Technician Cheetah Conservation Fund, Namibia

The Cheetah Conservation Fund (CCF), Namibia, is currently looking for a highly motivated individual to join its genetics laboratory staff in the position of Laboratory Technician.

The specific title and remuneration are dependent on the applicant’s level of experience. The successful applicant should have a Master’s degree in a relevant field of research or a minimum of 3 years of professional experience. The position is available immediately, with expected start date on or as close as possible to November 15th, 2018. Namibian residency is preferred. Applicants should send their CV, letter of motivation, and contact details of 3 references to genetics@cheetah.org

and geneticslab@cheetah.org.

The successful candidate should have a strong background in best laboratory practices in molecular biology, and have excellent organizational and communication skills. His/her main responsibilities will include maintenance and operation of our genetic analysers and supervision of interns and students, ensuring that good laboratory practices and protocols are followed. Other responsibilities will be curation of databases, development of laboratory services, writing of permit applications and reports, and keeping the laboratory adequately stocked at all times. Prior experience in these particular tasks is not required; however, willingness to learn and attention to detail are essential. This position will also provide opportunities for direct participation in research projects as time permits.

The genetics laboratory is located at the CCF research centre, about 40 km east of Otjiwarongo, Namibia. Staff members live on CCF property and housing is provided. Meals are prepared by CCF kitchen staff and are eaten communally. Further information regarding CCF and its mission to conserve cheetahs in the wild may be found at [www.cheetah.org](http://www.cheetah.org). Anne Schmidt-Kuntzel, DMV, PhD Assistant Director for Animal Health and Research Email: genetics@cheetah.org Tel: +264 67 306 225 Fax: +264 67 306 247 Life Technologies Conservation Genetics Laboratory Cheetah Conservation Fund (CCF) [www.cheetah.org](http://www.cheetah.org)

Anne Schmidt-Kuentzel <genetics@cheetah.org>

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## NatITaiwanU 2 PlantMicrobeEvolution

<pre> Two Assistant Professors (or higher rank) in Biological Science

Organization: National Taiwan University (NTU) Application Deadline: December 21, 2018 Job Starting Date: August 1, 2019 Place: Taipei, Taiwan Type of Position: Academic Education Requirement: Ph.D. (or equivalent)

Description The Department of Life Science, National Taiwan University seeks two outstanding scientists with expertise in (1) Plant morphogenesis and evolution, or Plant Evo-Devo, and (2) Microbiology, priority is given to the area of Microbial Biodiversity or Environmental Microbiology to fill positions at the rank of Assistant Professor (or higher). The successful candidate

is expected to teach (1) General Biology and Plant Functional Morphology, and (2) General Biology and Microbial Biodiversity. Applicants are expected to develop an internationally recognized research. Applicants having strong commitment to undergraduate education and academic research are cordially invited.

Qualifications The applicant is required to have a Ph.D. (or equivalent) degree and international research experience. Candidates with post-doctoral training are preferred. Evidence of exemplary scholar achievement (funding, publications, presentations, etc.) commensurate with position and years of experience is expected.

How to Apply / Contact The applicant should submit a cover letter indicating one's suitability for the advertised position. Additional materials should include curriculum vitae, research and teaching plans, a copy of official transcript of doctoral program, list of publications since August 1, 2012, and PDF files of related publications. All documents must be sent via e-mail to: fume@ntu.edu.tw. Three recommendation letters are required, and should be sent by the referees directly to the above e-mail address.

Mee <fume@ntu.edu.tw>

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## NewYorkU TeachingEvolution

NYU Liberal Studies is seeking a full-time contract faculty member to teach Life Science. The Life Science course examines fundamental discoveries and concepts in biology, including biochemistry, cell biology, genetics, infectious disease, and speciation. Evolution is a key theme that is woven throughout the course, so individuals with a PhD in Evolution or a related field are particularly encouraged to apply.

Liberal Studies at New York University invites applications for a Clinical Assistant Professor position in Life Science to begin September 1, 2019, pending administrative and budgetary approval.

Liberal Studies provides a unique interdisciplinary educational experience to undergraduate students. The Liberal Studies Core consists of a two-year interdisciplinary global curriculum drawing on great works across civilizations. The Global Liberal Studies Bachelor of Arts, one of NYU's premier liberal arts degrees, builds on the global core with an upper division interdisciplinary set of concentrations that direct students toward different

areas of global study.

We seek applicants for the following position:

Life Science

PhD in Biology, or PhD in Science Policy with MSc in Biology, and a focus on Science Policy. Candidates should have the ability to teach seminars in Life Science that examine the fundamental discoveries and concepts of biological science with an emphasis on the global nature of scientific problems and process. Candidates with the ability to teach upper-division seminars in their areas of expertise also welcome.

Minimum qualifications: a Ph.D. by the date of appointment; three years of college-level teaching experience; and demonstrated excellence in teaching. Publications and evidence of outstanding scholarship and relevant professional activity are strongly encouraged.

All Liberal Studies full-time faculty hold renewable term contracts, initially three years, and later five years in duration. Faculty are eligible for promotion within the Clinical faculty ranks (Associate, Full). Faculty normally teach three classes per semester, advise undergraduates, and contribute service to Liberal Studies and to the University.

Applications consisting ONLY of a cover letter and a current c.v. should be submitted by midnight, November 12th, 2018, Eastern Standard Time (US). Applications submitted after this date will not be considered.

Applicants may apply directly through the following links:

Life Science: <http://apply.interfolio.com/55812> Liberal Studies offers a global liberal arts curriculum at sites around the globe in the context of a leading research university. We seek scholar/educators of the highest caliber whose work reflects an interest in global diversity. Liberal Studies strongly encourages applications from women, racial and ethnic minorities, and other individuals who are under-represented in the profession, across color, creed, race, ethnic and national origin, physical ability, gender and sexual identity, or any other legally protected basis. NYU affirms the value of differing perspectives on the world as we strive to build the strongest possible university with the widest reach. To learn more about the Arts & Science commitment to diversity, equality, and inclusion, please read here: <http://as.nyu.edu/administrative-resources/office/dean/diversity-initiative.html>

EOE/Affirmative Action/Minorities/Females/Vet/Disabled/sexual Orientation/Gender Identity

Kevin Bonney <[kevin.bonney@nyu.edu](mailto:kevin.bonney@nyu.edu)> Kevin Bonney <[kevin.bonney@nyu.edu](mailto:kevin.bonney@nyu.edu)>

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## NorthDakotaStateU EvolutionaryGenomics

Position Title: Assistant Professor Research Area: Integrative Genomics Institution: Department of Biological Science, North Dakota State University, Fargo, ND Type: Full time, tenure-track

The Department of Biological Sciences at NDSU is accepting applications for a nine-month tenure-track faculty position at the Assistant Professor level to begin fall 2019. We are seeking candidates whose primary research interest is integrative genomics focusing on the sub-fields of ecological genomics, evolutionary genomics, or bioinformatics. The faculty member will be expected to collaborate with existing faculty on the genomics of overwintering stress in insects, as well as developing a research program in their own area of interest. We welcome applicants studying at all levels of inquiry from genetic, cellular, or physiological mechanisms to population-, landscape-, or ecosystem-level functions. Candidates must have a Ph.D. from an accredited institution in a discipline appropriate to the biological sciences and relevant post-doctoral experience. Successful candidates will be expected to develop an extramurally funded research program, supervise graduate students, and teach one course per semester at the undergraduate or graduate level. Specific courses taught will be determined based on faculty expertise and experience and the needs of the department. We are particularly interested in applicants who are willing to engage in interdisciplinary collaborations with department faculty. The position is 45% research, 45% teaching, and 10% service. The position will be competitive with regards to start-up funds, space, and salary.

Candidates must have: 1) completed a Ph.D. from an accredited institution in a discipline appropriate to the biological sciences and have relevant post-doctoral experience; 2) demonstrated research experience using integrated approaches and evidence of peer-reviewed publication; 3) evidence of a commitment to teaching and student learning at the undergraduate and graduate levels; 4) potential to initiate and develop an externally funded research program; 5) effective oral and written communication skills and 6) ability to interact and collaborate effectively with a diversity of colleagues and students.

Preference will be given to candidates with demon-



strated ability in: 1) research in genomics and/or bioinformatics, 2) research on model or non-model insects, 3) research investigating epigenetic mechanisms, 4) research that complements existing themes in the department, 5) obtaining extramural funding, and 6) promoting the success of students from underrepresented groups.

Application materials include: a curriculum vitae; a two-page description of research interests; a two-page statement of teaching interests and philosophy; and contact information (including telephone numbers and e-mail addresses) for three professional references. All application materials must be submitted electronically.

To apply, visit:

<http://jobs.ndsu.edu/postings/9701>

Questions regarding the search may be sent to [ndsu.biological.sciences@ndsu.edu](mailto:ndsu.biological.sciences@ndsu.edu). Review of applications will begin November 1, 2018 and continue until the position is filled.

North Dakota State University is an Equal Opportunity employer and all qualified applicants will receive consideration for employment without regard to age, color, gender expression/identity, genetic information, marital status, national origin, participation in lawful off-campus activity, physical or mental disability, pregnancy, public assistance status, race, religion, sex, sexual orientation, spousal relationship to current employee, or veteran status, as applicable

Ned A. Dochtermann Assistant Professor / Department of Biological Sciences NORTH DAKOTA STATE UNIVERSITY p: 701.231.7353 / f: 701.231.7149 / [www.ndsu.edu](http://www.ndsu.edu)

[neddochtermann.com](http://neddochtermann.com) [ned.dochtermann@ndsu.edu](mailto:ned.dochtermann@ndsu.edu)

“Dochtermann, Ned” <[ned.dochtermann@ndsu.edu](mailto:ned.dochtermann@ndsu.edu)>

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## OklahomaStateU 2 EvolutionaryNeurobiology

Candidates taking evolutionary approaches to problems in neurobiology, using genomic methods to study questions in evolutionary biology, or both, are encouraged to apply for these positions.

ASSISTANT PROFESSORS IN INTEGRATIVE BIOLOGY

The Department of Integrative Biology at Oklahoma

State University (<http://integrativebiology.okstate.edu>) invites applications for two tenure-track Assistant Professor positions—one a neurobiologist and one a geneticist—whose research complements departmental strengths in understanding the biology of organisms in natural environments. Applicants must have a Ph.D. in the life sciences and a strong scholarly record. Responsibilities include establishing an extramurally funded research program, mentoring M.S. and Ph.D. students, teaching on average two courses per year at the undergraduate or graduate levels, and meeting the needs of a diverse student population. The Department of Integrative Biology strives for excellence in research and instruction on biological processes from molecular to ecosystem levels of organization. We currently have 24 faculty members, numerous active adjuncts and emeritus members, 66 graduate students, and nearly 900 undergraduates majoring in biology, zoology, and physiology. Stillwater is located in north-central Oklahoma, and offers a high quality of life—a thriving college community with a low cost of living, many restaurants, a local airport, and close proximity to both natural and major metropolitan areas (Tulsa and Oklahoma City).

To apply, please submit the following items via Interfolio (neurobiologist: <https://apply.interfolio.com/55134>; geneticist: <https://apply.interfolio.com/55132>): cover letter; curriculum vita; separate research, teaching, and diversity statements; and contact information for three professional references. Application review will begin 5 November 2018, with employment starting August 2019 or as negotiated.

Bruce Waldman <[waldman@snu.ac.kr](mailto:waldman@snu.ac.kr)>

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## PennsylvaniaStateU AncientDNA

Ancient DNA - Assistant Research Professor or Researcher

The new ancient DNA laboratory at the Pennsylvania State University in the Department of Anthropology is seeking applications for an Assistant Research Professor or Researcher with experience in ancient DNA or low-biomass biomolecular research. The successful candidate will oversee daily laboratory operations in a new ancient DNA facility and a low-biomass modern DNA facility. In addition, the person selected will lead laboratory analyses in palaeomicrobiology and paleomicrobiome research, examining microorganisms in ancient humans, soils, environments, and animals and

modern medical specimen with low-biomass. The candidate must be familiar with Next Generation Sequencing methods and applicants would ideally have additional experience in microbiology or microbial ecology related fields, although not required. Ideal candidates should be hard working and self-motivated, enjoy working in a team environment, and have excellent communication skills. Additional experience with sample data basing, human and animal research ethics applications, and ordering/invoicing is also preferred. The appointment would be as an Assistant Research Professor for candidates with a Ph.D. and as a Researcher for those without a Ph.D., with salary commensurate with appointment and experience. The position will begin immediately and is available for four years, with the option to renew after that time. For additional questions about the position, please email: [lsw132@psu.edu](mailto:lsw132@psu.edu). To apply for this position, please submit an online application and submit: 1) a two-page cover letter describing your related experience; 2) your CV; and 3) the names and contact information of three professional references.

To review the Annual Security Report which contains information about crime statistics and other safety and security matters and policies, please go to <https://police.psu.edu/annual-security-reports>, which will also explain how to request a paper copy of the Annual Security Report.

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to all qualified applicants without regard to race, color, religion, age, sex, sexual orientation, gender identity, national origin, disability or protected veteran status.

Job URL: <https://psu.jobs/job/83678> "Kephart, Robin Lynn" <[rpk2@psu.edu](mailto:rpk2@psu.edu)>

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## San Francisco Botany Assistant Curator

ASSISTANT CURATOR OF WESTERN NORTH AMERICAN BOTANY

Do you have a passion for cutting-edge biodiversity science, sharing it with broader audiences, and making a real-world impact?

The California Academy of Sciences is seeking candidates who specialize in western North American plants (especially Californian), examining a wide range of top-

ics, including their evolution, diversity, or ecology. Candidates who could potentially work with our extensive research collections and our emerging California Initiative will be especially welcome. We also seek candidates with leadership in science communication and engagement, and an interest in increasing diversity in science.

The Academy offers a unique and powerful setting to conduct scientific research and engagement. Housed in a Double LEED Platinum building in San Francisco's Golden Gate Park, the Academy combines a world-class natural history museum, a research institute, and educational center all under one roof. Facilities include outstanding research collections (with almost 46 million specimens); a world-leading digital planetarium/visualization studio; a premiere aquarium with nearly 40,000 living animals and unique culturing facilities; an indoor rainforest, living coral reef, and California habitats; numerous other public exhibits and educational facilities; and advanced research laboratories for genomics, specimen preparation, digitization, computer modeling, scientific visualization, etc. The Academy also has a powerful citizen science engine in iNaturalist, which engages global observers in high-quality biodiversity data collection.

The new curator/scientist hires will join nearly 100 other IBSS staff and students and help us address some of the world's most pressing problems related to biodiversity conservation, evolutionary processes, ecosystem health, global environmental change, and sustainability - and communicate findings to stakeholders and a diverse public.

We specifically seek early-career candidates with a Ph.D. in a relevant field, a demonstrated publication record, and an independent research program. At least one year of postdoctoral research experience or equivalent is preferred.

Reviews of applications will begin November 7, 2018. We anticipate holding interviews in early 2019, with a starting date as early as July 2019.

Applications

Applications must be submitted through the Academy's careers page:

<http://calacademy.snaphire.com/home?source=CAS> A complete application consists of: (1) Cover letter; (2) Curriculum vitae; (3) Statement of research accomplishments and goals (2 pages); (4) Statement of education and engagement experience and goals, including activities to increase diversity in science (2 pages); (5) Description of how your work addresses the Academy's mission of "Explore, Explain, and Sustain life on Earth" (1 page); (6) Four examples of your work (two research publica-

tions and two outreach publications, media projects, etc.); and (7) Names and contact information of at least three references. You will be notified before references are contacted.

Questions?

For submission questions related to Snaphire, please contact Elayne Graylow, Associate Director, Human Resources (egraylow@calacademy.org). For questions about the positions, please contact Dr. Nathalie Nagalingum, Search Committee Chair (nna-galingum@calacademy.org). In both cases, please have the email subject line begin with "Curator Search".

The California Academy of Sciences is an Equal Opportunity Employer and committed to ensuring that all employees and applicants receive equal consideration and treatment, regardless of race, color, creed, gender (including gender identity or gender expression), religion, marital or domestic partner status, age, national origin or ancestry, physical, mental or medical disability, sex, sexual orientation, citizenship, military service or veteran status, or any other characteristic protected by state or federal law or local ordinance.

– Nathalie Nagalingum, Ph.D. Associate Curator & McAllister Chair of Botany T 1.415.379.5356 nna-galingum@calacademy.org Website | Twitter Botany at the California Academy of Sciences California Academy of Sciences 55 Music Concourse Drive, San Francisco, CA 94118 [www.calacademy.org](http://www.calacademy.org) Nathalie Nagalingum <nna-galingum@calacademy.org>

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## San Francisco State U Evolutionary Microbiology

\* Search for Tenure Track Faculty Position in Microbiology,

<http://biology.sfsu.edu/announcements/assistant-professor-microbiology-position>

Assistant Professor in Microbiology San Francisco State University, Department of Biology offers an exciting opportunity for a tenure-track Assistant Professor position in Microbiology, with an emphasis in Virology or Immunology, beginning August 2019.

We seek a colleague whose teaching and research interests include contemporary molecular approaches to investigate a variety of topics including pathogenesis, host-microbe interactions, virology, immunology, vi-

rome/microbiome or proteomics. We are especially interested in qualified candidates who can contribute, through their research, teaching, or service, to the diversity and excellence of the academic community. Applicants must be committed to developing an externally funded research program and contribute to both undergraduate and M.S. graduate programs through teaching and mentorship of student research. Major teaching responsibilities would include upper division microbiology and virology courses for majors, as well as other undergraduate and graduate courses in their area of expertise. The Department of Biology is home to over 1600 undergraduates, 200 master's students, and 40 tenure/tenure-track faculty. The Department has a reputation for actively engaging students from diverse backgrounds in educational pursuits and scientific discovery.

\* Read more

Sarah Cohen Professor of Biology Estuary & Ocean Science Center Romberg Tiburon Campus, San Francisco State University 3150 Paradise Dr, Tiburon, CA 94920 sarahcoh@sfsu.edu

<https://sites.google.com/site/rtccohenlab/home> C  
Sarah Cohen <sarahcoh@sfsu.edu>

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## SciLifeLab Sweden Bioinformatics

We have several openings for permanent bioinformatics staff at NBIS/SciLifeLab, Sweden (Stockholm, Uppsala).

SciLifeLab ([www.scilifelab.se](http://www.scilifelab.se)) is a major national center for molecular biosciences with focus on health and environmental research in Sweden. The National Bioinformatics Infrastructure Sweden at SciLifeLab ([www.nbis.se](http://www.nbis.se)) is a large national infrastructure in rapid development, now looking for several experts to join the Bioinformatics Support teams. NBIS Bioinformatics Support is a state-of-the-art unit for analysis of large-scale genomics and related omics data, providing the opportunity to work in a vibrant research environment on a range of interesting projects together with research groups across Sweden. In addition, you will engage in tools development and advanced bioinformatics training. The positions are focused on, but not limited to, the areas outlined in the headings below:

Medical genomics, Stockholm (Oct 22) <https://www.su.se/english/about/working-at-su/jobs?rmpage=job&rmjob=6857&rmlang=UK> Contact: jes-

sica.lindvall@nbis.se

Genome annotation, metagenomics, and/or comparative genomics, Uppsala (Oct 22) <http://uu.se/en/about-uu/join-us/details/?positionId=226605> Contact: henrik.lantz@nbis.se

Comparative and evolutionary genomics in plants, Uppsala (Oct 31) <http://www.uu.se/en/about-uu/join-us/details/?positionId=227746> Contact: bjorn.nystedt@scilifelab.se

Please note that you are formally required to apply for each position separately!

Jessica Lindvall, Henrik Lantz, Björn Nystedt The National Bioinformatics Infrastructure Sweden Science for Life Laboratory

Bjorn Nystedt, PhD Joint head of facility Bioinformatics Long-term Support (WABI) National Bioinformatics Infrastructure Sweden at SciLifeLab [www.nbis.se](http://www.nbis.se), [www.scilifelab.se/platforms/bioinformatics](http://www.scilifelab.se/platforms/bioinformatics)

BMC E10:3206, entrance C11 Husargatan 3, SE-752 37 Uppsala

Phone: 018 - 471 4413 E-mail: bjorn.nystedt@scilifelab.se

Björn Nystedt <bjorn.nystedt@scilifelab.se>

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## SoutheasternLouisianaU EvolutionaryBiology

Southeastern Louisiana University: Assistant Professor, Integrative Biologist

<https://jobs.selu.edu/applicants/jsp/shared/-Welcome.css.jsp> Applicants must have expertise in plant biology, marine biology, ornithology, or mammalogy, but other areas that complement and extend existing faculty strengths will also be considered. The successful candidate will be expected to maintain a research program appropriate in a department with both an undergraduate and a master's level degree program. He/she will also be expected to contribute to undergraduate and graduate teaching in areas of their expertise.

Southeastern Louisiana University is primarily a teaching institution whose mission is successful education of undergraduate and graduate students. The Department of Biological Sciences has more than 800 undergraduate majors in five concentrations. The Department is

housed in a modern building with excellent research and teaching laboratories as well as other research facilities, including a roof-top greenhouse, a Vertebrate Museum, access to LONI for high-performance cluster computing, an Electron Microscopy Center, a vivarium, and the Turtle Cove Environmental Research Station. The Department has approximately 25 graduate students in the MS degree program. The University and Turtle Cove are positioned in an ecologically diverse region with ample opportunities for research in terrestrial, freshwater, or estuarine habitats. For information concerning the Department of Biological Sciences please visit our web page at: [www.southeastern.edu/biology](http://www.southeastern.edu/biology) In order to guarantee review, applicants must submit all documents requested. To ensure consideration, application materials must be received by 11/16/2018.

Complete the entire application online and include all education and work experience and the names and contact information for three references on your application.

Attach an electronic copy of your letter of application addressing qualifications and the following attachments: cover letter of application, CV (that includes the contact information for at least three references, a statement of teaching philosophy, and a statement of research philosophy and copies of transcripts from all college/universities attended (official transcripts required upon employment).

For more information, please contact: Janice Bossart (jbossart@selu.edu)

Kyle R. Piller, PhD Edward G. Schlieder Foundation Professor of Environmental Studies and Sustainability, Curator of Vertebrates, and Graduate Coordinator Southeastern Louisiana University, Dept. of Biological Sciences Hammond, LA 70402 Kyle.Piller@selu.edu 985-549-2191 [www.kylepiller.com](http://www.kylepiller.com) Subject Editor Zookeys: Fishes of North America and Mexico <http://zookeys.pensoft.net/> Kyle Piller <kyle.piller@selu.edu>

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## StellenboschU PlantPopGenetics

Senior Lecturer/Lecturer

(Ref. NW07/290/0918)

The Department of Botany and Zoology is recognised both nationally and internationally for its research on biodiversity science, evolution and ecology. The Department offers a stimulating academic environment

with excellent facilities and staff support. The Department recognises the symbiosis between quality research, teaching and community interaction.

Duties:

- ï Undergraduate and postgraduate teaching in Botanical and/or Zoological topics related to biodiversity, ecology and evolution;
- ï Recruiting and supervising postgraduate students at Honours, MSc and PhD levels;
- ï Active research with sustained scientific publishing in one of the research fields currently on offer in the Department (Cape and Cape Coastline diversity and ecology/Systematics and Molecular Ecology/Plant Physiology and Medicinal Biology/Evolutionary Ecology/Global change - for further information see <http://www.sun.ac.za/english/faculty/-science/botany-zoology/research>);
- ï Involvement in and contributing to the broader community;
- ï Developing national and international research collaborations and networks;
- ï Participating in administrative service delivery at Departmental, Faculty and University levels.

Requirements:

- ï A PhD in Biological Sciences with a focus on Botany and/or Zoology;
- ï Excellent research and publication record corresponding with the research focus fields of the Department and subject to the level of appointment;
- ï Proven track record of teaching at tertiary level (lecturer or teaching assistant, depending on the level of appointment);
- ï Proven ability to effectively communicate in English;
- ï Proof of successful postgraduate supervision (senior lecturer level only).

Recommendations:

- ï Proven ability to source external funding for research (senior lecturer level);
- ï Postdoctoral experience;
- ï Proven ability to lecture in Afrikaans;
- ï Experience in outreach activities to engage with the broader community;
- ï Research background in plant population genetics;
- ï Proven ability to teach undergraduate and postgraduate courses in principles of ecology and/or animal and/or

plant diversity and/or global change.

Commencement of duties: 1 January 2019

Closing date: 22 October 2018

Enquiries regarding this post: Prof. Conrad Matthee, Executive Head: Botany and Zoology, on 021 808 3957, or at [cam@sun.ac.za](mailto:cam@sun.ac.za)

Enquiries regarding remuneration/benefits as well as technical assistance with the electronic application process: Human Resources Client Services Centre on 021 808 2753

The University will consider all applications in terms of its Employment Equity Plan, which acknowledges the need to diversify the demographic composition of the staff corps, especially with regard to the appointment of suitable candidates from the designated groups

The University reserves the right not to make an appointment.

Your application, comprising a comprehensive curriculum vitae (including the names and e-mail address of at least three referees), must reach the University before or on the closing date of the advertised post.

Apply online at [www.sun.ac.za/english/careers](http://www.sun.ac.za/english/careers) The University reserves the right to investigate qualifications and conduct background checks on all candidates.

Should no feedback be received from the University within six weeks of the closing date, kindly accept that your application did not succeed.

Senior Lektoraat/Lektoraat

(Verw. NW07/290/0918)

Die Departement Plant- en Dierkunde word beide nasionaal en internasionaal erken vir sy navorsing oor biodiversiteitswetenskap, evolusie en ekologie. Die Departement bied 'n stimulerende akademiese omgewing met uitstekende fasiliteite en personeelondersteuning. Die Departement erken die simbiose tussen kwaliteitnavorsing, onderrig en gemeenskapsinteraksie.

Pligte:

- ï Voorgraadse en nagraadse onderrig oor onderwerpe in Plantkunde en/of Dierkunde wat verband hou met biodiversiteit, ekologie en evolusie;
- ï Werwing en studieleiding van nagraadse studente op Honneurs-, MSc- en PhD-vlak;
- ï Aktiewe navorsing met volgehoue wetenskaplike publikasie in een van die navorsingsvelde wat tans in die Departement plaasvind (Kaap en Kaapse Kuslyn diversiteit en ekologie/Sistematiek en Molekulêre Ekologie/Plantfisiologie en Geneeskundige Biolo-

gie/Evolusionêre Ekologie/Globale verandering â€vir meer besonderhede gaan na <http://www.sun.ac.za/english/faculty/science/botany-zoology/research>);

ï Betrokkenheid by, en 'n bydrae tot die breër gemeenskap;

ï Ontwikkeling van nasionale en internasionale navorsingsamewerkings en -netwerke;

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## StonyBrookU Evolution

A position is available in the Department of Ecology and Evolution at Stony Brook University for a part-time 12-month lecturer (0.75 FTE).

Required Qualifications: Ph.D. in ecology, evolution, biological sciences, or a field closely related to the subject of the search.

Preferred Qualifications: Research emphasis on quantitative methods and biological statistics. Experience teaching undergraduate and/or graduate lecture courses on research methods and/or statistics. Experience teaching courses in evolutionary biology. Experience conducting research using geometric morphometrics. Significant research experience, including authorship of at least five publications in peer-reviewed scientific journals.

Responsibilities & Requirements: The successful candidate for this part-time position (75% FTE) will teach a course in statistics and data analysis for biology majors (BIO 211), with additional summer teaching to include an online course in evolution for biology majors (BIO 354), in addition to an online version of the statistics and data analysis course. An additional graduate course on geometric morphometrics (BEE 564) will be taught during the spring semester of year 2 for this temporary position. There will also be the opportunity to conduct research during the academic year and summer. The successful candidate will be expected to design an online version of BIO 211 that can be offered during the summer session to expand course access for students. An additional online course will be developed for winter session potentially as a cross-listed course offering.

Special Notes: This is a part time non-tenure track position at 0.75 FTE. FLSA Exempt position, not eligible for the overtime provisions of the FLSA. Internal and external search to occur simultaneously.

Anticipated Start Date: May 2019.

For more information and application details, please visit: <https://www.stonybrook.edu/commcms/faculty-jobs/positions/faculty-librarian/current-year/Lecturer-12-month-F-9942-18-10> – Robert Thacker Professor and Chairperson Department of Ecology and Evolution 650 Life Sciences Building Stony Brook University Stony Brook, New York 11794-5245

voice: 631-632-8590 e-mail: robert.thacker@stonybrook.edu

“robert.thacker@stonybrook.edu”  
<robert.thacker@stonybrook.edu>

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## StowersInst Missouri CaveFishAdaptation

### Research Technician

The Rohner Lab at the Stowers Institute has an opening for a Research Technician to conduct research in a molecular biology lab working with zebrafish and cavefish. The lab is studying metabolic evolution and is interested in how animals, in particular cavefish, can adapt their physiology to the extreme and nutrient limited cave environment.

Primary responsibilities include organizing fish stocks, extracting DNA, setting up PCR and sequencing reactions, analyzing data, and assisting with other routine services such as plasmid purification, ordering, etc.

In addition to outstanding oral and written communication skills and the ability to work in a team-oriented environment, the successful candidate will have excellent organizational skills.

Minimum requirements include an undergraduate degree in biology, molecular biology, or a related field. Experience performing basic molecular biology laboratory tasks such as PCR, gel electrophoresis, and DNA sequencing is highly preferred.

Application Instructions: To apply, please submit a current resume, transcripts, and 2 letters of recommendation to [careers@stowers.org](mailto:careers@stowers.org) or to Administration Department, Stowers Institute for Medical Research, 1000

E 50th Street, Kansas City, MO 64110.

About the Stowers Institute for Medical Research:

The Stowers Institute for Medical Research is a world-class basic biomedical research organization focused on improving our understanding of fundamental mechanisms of biology and using this knowledge to guide the development of innovative treatments to improve human health.

Our dedicated scientists collaborate across a variety of disciplines, studying many different aspects of health and disease. A primary goal of our research is to understand the principles that guide the function and behavior of living organisms and individual cells. Discoveries resulting from this kind of research often prove to be major milestones along the path toward novel therapies and cures.

Jim Stowers, founder of American Century Investments, and his wife, Virginia, opened the Institute in 2000. Currently, the Institute is home to about 500 researchers and support personnel, over 20 independent research programs, and more than a dozen technology development, core and support facilities. In 2012, the Institute welcomed the first class of predoctoral researchers into The Graduate School of the Stowers Institute (GSSIMR).

Discover more about us at [www.stowers.org](http://www.stowers.org) and [www.stowers.org/gradschool](http://www.stowers.org/gradschool).

Jennifer Herbers Staffing/HR Specialist

816 / 926 4380 [JHerbers@stowers.org](mailto:JHerbers@stowers.org)

STOWERS INSTITUTE FOR MEDICAL RESEARCH  
1000 East 50th Street / Kansas City, Missouri 64110

“Herbers, Jennifer” <[JHerbers@stowers.org](mailto:JHerbers@stowers.org)>

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## Toulouse EvolutionaryBiology

The Institute for Advanced Study in Toulouse (IAST), interdisciplinary Institute, welcomes applications from researchers from a large range of disciplines, including Evolutionary Biology. We seek candidates with a strong research background in their own discipline, but willing and able to develop research projects drawing on IAST’s substantial interdisciplinary resources, including particularly the proximity of strong groups in economics (Toulouse School of Economics, TSE). We are open to a variety of research methods, including theory, field and laboratory experiments, observational field work, and

the analysis of large secondary data sets. All research interests relevant to the broad study of human behavior are welcome, but interests close to those already developed at IAST will be given special consideration, including theoretical models of evolution, the family, sexual selection, evolution of cognition. Anticipated start date: September 1st, 2019

Please visit: <https://www.iast.fr/apply> for more information and applications.

Many thanks for posting this ad !

Very best regards,

Delphine POUTS

Assistante de Direction

Executive Assistant

IAST

21 allée de Brienne

31015 Toulouse Cedex 6

Ph : 0033 5 61 12 86 27

[Delphine.pouts@iast.fr](mailto:Delphine.pouts@iast.fr)

Delphine Pouts <[delphine.pouts@iast.fr](mailto:delphine.pouts@iast.fr)>

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## UBuffalo 2 GenotypePhenotype

The Department of Biological Sciences at the University at Buffalo, The State University of New York at Buffalo (<http://biology.buffalo.edu>) invites applications for two 10-month tenure-track assistant or associate professor-level positions (rank negotiable based on experience) from individuals who study the complex relationships between genotype and phenotype, and are committed to establishing robust, extramurally-funded research programs. Specifically, this hiring initiative focuses on understanding the relationships linking genome to phenotype at all levels of life. In this round of recruitment, the Department seeks to hire: (1) an assistant or associate professor in the area of gene regulation at several different levels, including the epigenetic, and (2) an assistant or associate professor studying how cells or organisms alter their genomes (i.e., post-genomic biology) to adapt to their environments.

The University at Buffalo (UB) has a tradition of research excellence in biology. UB is the largest and most comprehensive campus in the State University of New York system. The Department of Biological Sciences

is the major focal point for interdisciplinary research and education in life sciences at the University at Buffalo. The Department Biological Sciences' strengths include the biochemistry of gene expression, molecular evolution and genomics, and sensory transduction and development. In addition to the advertised positions, an active, ongoing search for a neurogeneticist will bolster and extend departmental strengths (refer to: <https://www.ubjobs.buffalo.edu/postings/16479>). Opportunities for interdisciplinary interactions among UB, Roswell Park Comprehensive Cancer Center, and the NYS Center of Excellence in Bioinformatics and Life Sciences are available. The positions will provide a 10-month, state-supported salary plus a competitive startup package.

With backing from the College of Arts and Sciences, the Department aims to achieve disciplinary excellence in addressing "the large genome" challenge of understanding the genetic control of phenotype. The successful candidate is expected to: (1) develop a nationally-recognized, externally-funded research program; 2) participate in research laboratory training of baccalaureate, masters and doctoral students; and 3) teach undergraduate and graduate level courses. Applicants must have a doctoral or equivalent degree in an appropriate field, relevant postdoctoral experience, documented evidence of high-quality research productivity, and a solid commitment to excellence in both research and teaching.

To apply, submit electronic versions of a cover letter, a curriculum vitae, a summary of research accomplishments and future plans, and a statement of teaching interests and philosophy to UBJobs at: <http://www.ubjobs.buffalo.edu/postings/16805> Please include the names of three colleagues who could be contacted for letters of recommendation.

Completed applications will be reviewed beginning December 10, 2018, and will continue until the position is filled. Please consult our website: <http://biology.buffalo.edu> for information about UB, our department and our community.

University at Buffalo is an affirmative action/equal opportunity employer and, in keeping with our commitment, welcomes all to apply including veterans and individuals with disabilities.

Omer Gokcumen, Ph.D. Assistant Professor Department of Biological Sciences University at Buffalo

[gokcumenlab.org](http://gokcumenlab.org)

Omer Gokcumen <[gokcumen@gmail.com](mailto:gokcumen@gmail.com)>

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## UBuffalo NeuroEvoDevo

The Biological Sciences Department at the University at Buffalo is searching for a senior Professor (Associate/Full) to fill a position in Neurogenetics. Evolution-focused applicants, for example scientists specializing in Neuro EvoDevo research, are invited to apply. In addition to a disciplinary specialization in neuroscience-related research, the Dept. of Biological Sciences currently has 5 faculty members working in the areas of evolutionary genomics and/or molecular evolution, so an evolution-oriented individual using genomic approaches in neurobiology (for example) would join a vibrant group in that area.

Associate Professor or Professor in Neurogenetics Position Title: Associate Professor or Professor in Neurogenetics Posting Number: F1800111 Employer: State Appointment Term: Term Position Type: UUP Faculty Position Summary The Department of Biological Sciences at the University at Buffalo (SUNY) is seeking outstanding applicants for a prestigious Empire Innovation Professorship in the broad field of neurogenetics.

Candidates with research interests in any area of neurogenetics are encouraged to apply, and work may be focused at the molecular, cellular, systems or organismal level. A successful applicant will use modern genetic approaches to address a significant problem.

The Department of Biological Sciences is the major focal point for interdisciplinary research and education in life sciences at the University at Buffalo (UB). The University at Buffalo (UB) is the largest and most comprehensive campus in the State University of New York system. The department currently has a strong group of neuroscientists investigating sensory systems and neuronal diseases in a variety of model organisms. There is also a wider community at UB with research interests at all levels of neuroscience, from channel biophysics to drug addiction. Opportunities for interdisciplinary interactions within UB, Roswell Park Cancer Institute, and the NYS Center of Excellence in Bioinformatics and Life Sciences are also available. The position will provide a 10-month, state-supported salary plus a competitive startup package.

Applicants should be at the advanced Associate Professor or full Professor level, and have a strong, federally-



funded, interdisciplinary research program with relevance across multiple areas of neuroscience.

The successful candidate will be expected to participate in graduate and undergraduate teaching.

To apply, submit electronic versions of a curriculum vitae, cover letter and a 3-page description of current and future research interests to: <http://www.ubjobs.buffalo.edu/postings/16458>. Please include the names of three colleagues who could be contacted for letters of recommendation. Completed applications will be reviewed beginning October 15, 2018. Please consult our website: <http://arts-sciences.buffalo.edu/biological-sciences.html> for information about UB, our department and our community.

UB is an AA/EOE and welcomes all to apply including veterans and individuals with disabilities.

Minimum Qualifications PhD or equivalent.

Achieved academic rank of associate professor or equivalent.

Preferred Qualifications History of peer-reviewed publications and successful funding.

Physical Demands FTE 1.00 Campus North Campus Special Instructions to Applicants Review of complete applications will begin 10/15/2018. All application materials should be submitted via UB Jobs. Application materials submitted directly to the posting contact will not be acknowledged and cannot be considered.

Additional Information Pursuant to Executive Order 161, no State entity, as defined by the Executive Order, is permitted to ask, or mandate, in any form, that an applicant for employment provide his or her current compensation, or any prior compensation history, until such time as the applicant is extended a conditional offer of employment with compensation. If such information has been requested from you before such time, please contact the Governor's Office of Employee Relations at (518) 474-6988 or via email at [info@goer.ny.gov](mailto:info@goer.ny.gov).

Contact Information Contact's Name: Matthew Xu-Friedman Contact's Title: Professor Contact's Email: [mx@buffalo.edu](mailto:mx@buffalo.edu) Contact's Phone: 716-645-4992 Posting Dates Posted: 09/18/2018 Deadline for Applicants Open until filled.

Date to be filled: 08/22/2019

Victor A. Albert Empire Innovation Professor of Biological Sciences, University at Buffalo (SUNY) Visiting Professor, Nanyang Technological University, Singapore <https://arts-sciences.buffalo.edu/biological-sciences/faculty/faculty-directory/victor-albert.html> "Albert, Victor" <[vaalbert@buffalo.edu](mailto:vaalbert@buffalo.edu)>

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## UCalifornia Berkeley 2 PlantFungalEvol

Assistant, Associate, or Full Professor, Plant Response and Adaptation to Climate Change

Department of Plant and Microbial Biology, UC Berkeley

The Department of Plant and Microbial Biology in the College of Natural Resources at the University of California, Berkeley, has an opening for a faculty position in plant biology with an expected start date of July 1, 2019. This position may be filled at any level (tenure track Assistant Professor, tenured Associate Professor or Professor, nine-month appointment). Rank will be determined based on qualifications and experience.

We seek an individual who currently has, or will develop, an internationally recognized, extramurally funded research program in plant genomics and/or epigenetics to investigate fundamental questions in plant biology, including but not limited to plant biochemistry and metabolism, interactions with other organisms, abiotic stress responses including salt, drought, and temperature tolerance, environmental signal transduction, evolution and adaptation. We are especially interested in research that examines fundamental aspects of plant responses and adaptation to climate change. The desirable candidate's research will be expected to contribute to the development and implementation of cutting-edge genome editing tools and integrate a broad spectrum of genetic, physiological, computational, and genomic approaches. Candidates who use systems and/or synthetic biology approaches and conduct translational research with crops and/or naturally occurring populations are also encouraged to apply.

Candidates for a tenured appointment will have an opportunity to take on a leadership role in the Innovative Genomics Institute in the area of plant genome editing. The successful applicant will join a dynamic and diverse community of biologists on the UC Berkeley campus in the Department of Plant and Microbial Biology (<http://pmb.berkeley.edu>), and will have extensive opportunities for synergistic collaborations with the Innovative Genomics Institute (<http://innovativegenomics.org/>), USDA-ARS Plant Gene Expression Center (<http://pgec.berkeley.edu/>), UC Berkeley Energy Biosciences Institute (

[www.energybiosciencesinstitute.org](http://www.energybiosciencesinstitute.org)), Lawrence Berkeley National Laboratory (<http://www.lbl.gov/>), Joint Genome Institute (<http://www.jgi.doe.gov/>), and the Joint BioEnergy Institute (<http://www.jbei.org/>).

The Department of Plant & Microbial Biology and the Berkeley campus values diversity, equity and inclusion as exemplified by the following principles of community:

We recognize the intrinsic relationship between diversity and excellence in all our endeavors.

We embrace open and equitable access to opportunities for learning and development as our obligation and goal.

Our excellence can only be fully realized by faculty, students and staff who share our commitment to these principles. Successful candidates for our faculty positions will demonstrate evidence of a commitment to equity and inclusion. Financial and in-kind resources are available to pursue activities that help accelerate our efforts to achieve our equity and inclusion goals.

The University of California, Berkeley is dedicated to recruiting a diverse applicant pool and is committed to addressing the family needs of faculty, including dual career couples and single parents. Preferred candidates should demonstrate the highest standards of professional research, teaching, service, and contribute to our commitment to diversity and equal opportunity in higher education.

Basic Qualifications (required at the time of application): - All applicants must have a PhD (or equivalent international degree) at the time of application.

Additional Qualifications (required by the start date): - Applicants at the Assistant level must have a minimum of two years postdoctoral experience by the date of hire.

Preferred Qualifications: - The ideal candidate, any level, will have demonstrated excellence and originality in research. - The ideal candidate, any level, will have a documented background and proven success in experimental plant biology and the ability to contribute to instruction at the undergraduate and graduate levels. - The ideal candidate, at any level, will exhibit an understanding of and a commitment to enhance diversity, equity, and inclusion.

Applicants at the Assistant level (including individuals currently holding tenure-track Assistant Professor or equivalent position) should submit a curriculum vitae (your most recently updated C.V.), cover letter, a two-to-three page statement of research describing current and future research interests, a one page statement of teaching experience and

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## UCalifornia Berkeley Director InnovativeGenomicsInst

\*Professor, Molecular and Cell Biology and \*

\*Chief Scientific Director, Innovative Genomics Institute\*

\*University of California, Berkeley\*

The Department of Molecular and Cell Biology (MCB) at the University of California, Berkeley seeks candidates for a new position, Professor in Molecular & Cell Biology and Chief Scientific Director of the Innovative Genomics Institute (IGI). The expected start date is July 1, 2019.

MCB is the home of fundamental discoveries of transformative importance including the first developments for Immunotherapy for Cancer and checkpoint intervention, the discovery of the Telomerase enzyme and now CRISPR/CAS genome editing. The present and future discoveries facilitated by the genome editing revolution have made it critical for UC Berkeley to appoint a senior faculty member who is immersed in the broad applications of genome editing and knowledgeable about the opportunities and societal challenges of genome editing technologies as they are deployed around the world.

We seek an experienced researcher and teacher adept with disruptive technology and ideas to join our faculty and lead research at the intersection of paradigm-shifting basic science discoveries and societal good and train our future biologists. The successful candidate will also serve as the Chief Scientific Director for the IGI (50%), providing senior team leadership and strategic thinking in the direction and development of initiatives including establishing clinical trials in biomedicine and field trials in agriculture, developing new philanthropic and grant support, and engage in strategic planning. We seek candidates whose research, teaching, or service has prepared them to contribute to our commitment to diversity and inclusion in higher education.

\*Basic qualifications (required at the time of application): \*

A Ph.D. and/or M.D. or equivalent international degree is required at the time of application

\*Additional qualifications (required at the time of application):\*

Five or more years of experience leading or directing technology development related to genome editing

\*Preferred qualifications (by start date):\*

ÂÂ A Ph.D. in Molecular and Cell Biology, or a related field

ÂÂ Ability to teach and mentor students at all academic levels

ÂÂ A record of extramural research funding or serving as principle investigator

ÂÂ Experience directing and/or developing initiatives translating genome-editing based discovery to real-world applications (e.g. enabling genome-editing approaches in clinical settings to address critical unmet medical needs; deploying genome-editing approaches to agricultural crops with a global footprint; and/or developing applications of genome editing and cell engineering in industrial settings including new genome editing systems)

ÂÂ A proven record of advancing diversity, equity and inclusion through teaching, research, and/or service

Applications must be received by October 29, 2018. To apply, complete an application with the following required documents at: <https://aprecruit.berkeley.edu/apply/JPF01786> ÂÂ Cover Letter summarizing your interest and qualifications for this position

ÂÂ Curriculum Vitae: your most recently updated C.V.

ÂÂ Summary of Research and Directing Experience: a summary of current and future research objectives including a brief summary of your accomplishments and experience directing and developing a biomedical type institute

ÂÂ Diversity Statement: a statement on past contributions and future plans to further diversity and inclusion in the lab, classroom and campus.

ÂÂ Summary of Teaching and Service Experience: a summary of teaching experience and interests

ÂÂ Significant Publication #1 - In addition to your publication, provide a statement that begins with the manuscript title and author list and then summarizes, in approximately 300 words, the significance of the selected publication.

ÂÂ Significant Publication #2 - In addition to your publication, provide a statement that begins with the manuscript title and author list and then summarizes, in approximately 300 words, the significance of the selected publication.

ÂÂ Significant Publication #3 - In addition to your publication, provide a statement that begins with the manuscript title and author list and then summarizes, in approximately 300 words, the significance of the selected publication.

Applicants should provide the names and contact information for three references who will be contacted for letters only if you are a finalist for the position, and you give permission to do so. All letters will be treated as confidential per University of California policy and California state

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## UCalifornia LosAngeles ResAssist CulturalEvol

UCLA\_CapuchinCulturalEvolution\_RA

Research tech: evolution of learning strategies in wild capuchin monkeys, Costa Rica

Research assistants desired (asap!) to participate in a study of behavioral flexibility, innovation and social learning in wild capuchin monkeys in Costa Rica, as part of a 28-year study of the Lomas Barbudal capuchin monkey population. Full details here:

<http://pin.primate.wisc.edu/jobs/listings/38557> Susan Perry <Sperry@anthro.ucla.edu>

## UChicago EcologyEvolution

The University of Chicago's Department of Ecology & Evolution in the Biological Sciences Division is searching for a tenured or tenure-track faculty member at any rank with preference for an ASSISTANT PROFESSOR, and invites applications. We seek applicants pursuing research on applying empirical approaches, or a combination of theoretical and empirical approaches, to understand ecological or evolutionary processes, and

who innovatively address major questions in ecology, evolution, or behavior and related areas.

A goal of this search is to increase the diversity of the faculty in Ecology and Evolution and across the Biological Sciences Division, and we therefore welcome applicants who come from groups that are historically underrepresented, such as Black/African American, Hispanic/Latino, American Indian or Alaskan Native.

At the University of Chicago, we are committed to academic excellence and diversity within the faculty, staff, and student body. The University is a vibrant center of scientific discovery and innovation, and opportunities for multidisciplinary collaboration are abundant, both within and outside the Biological Sciences Division. The Division, other academic units of the University, and the University of Chicago Medical Center, are all contained within one compact campus in Chicago's Hyde Park. Appointees will have access to state-of-the-art core facilities and to outstanding colleagues and graduate students affiliated with numerous degree-granting programs within and outside the biological sciences. Competitive research space and start-up funding will be available, as will the potential for interactions with our affiliates, Argonne National Laboratory and the Marine Biological Laboratory.

Applicants must have a doctoral degree or equivalent. To be considered, those interested must apply online at the University of Chicago's Academic Career Opportunities website <https://tinyurl.com/ya9wfzcr>. Applicants must upload a curriculum vitae with bibliography, statements on past and prospective research and teaching, and contact information for 3 references. Three publications or preprints must also be uploaded. Review of complete applications will begin after November 19, 2018 and continue until the position is filled.

The University of Chicago is an Affirmative Action/Equal Opportunity/Disabled/Veterans Employer and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender identity, national or ethnic origin, age, status as an individual with a disability, protected veteran status, genetic information, or other protected classes under the law. For additional information please see the University's Notice of Nondiscrimination at [http://www.uchicago.edu/about/-non\\_discrimination\\_statement/](http://www.uchicago.edu/about/-non_discrimination_statement/). Job seekers in need of a reasonable accommodation to complete the application process should call 773-702-0287 or email [ACOppAdministrator@uchicago.edu](mailto:ACOppAdministrator@uchicago.edu) with their request.

Sarah Cobey, PhD Associate Professor Ecology & Evolution University of Chicago

Sarah Cobey <[cobey@uchicago.edu](mailto:cobey@uchicago.edu)>

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## UEdinburgh LabManager MicrobiomeEvolution

Lab Manager - University of Edinburgh - The ecology and evolution of gut ecosystems in a wild mammal

We are looking for an experienced and highly motivated individual to play a leading role in a multi-disciplinary research project investigating the dynamics of gut communities in wild sheep. There is growing appreciation of the significance of our gut microbiota for human and animal health, but we have limited understanding of gut community dynamics and how they relate to host health and fitness in wild animals. Our project will use data and samples collected by the long-term study of Soay sheep on the remote St Kilda archipelago: we will be regularly collecting faecal samples from known individual sheep, DNA will be extracted from these samples and meta-barcoding approaches applied to quantify the community structure of bacteria, nematodes and protozoans present in the gut.

This job will involve setting up and managing the extraction and PCR of samples collected on St Kilda for sequencing on the Illumina MiSeq platform. You will be part of a large, dynamic research team, involving 12 investigators from 6 different institutions and up to 8 project staff. You will represent a pivotal part of this team, responsible for ensuring that high quality sequence data is being generated and managed efficiently and effectively. The job will be based in Dan Nussey's laboratory at the Institute of Evolutionary Biology in Edinburgh, and is funded by a large NERC grant.

Candidates should have a BSc in the biological sciences or related subject and possess a high level of experience and expertise in managing a laboratory and in laboratory techniques associated with meta-barcoding. Given the large, complex nature of this project we are looking for someone with exceptional organisational, planning and interpersonal skills.

The post is full time and available from 01/03/19 and is funded for 4 years initially. We expect to interview short-listed candidates in mid-November 2018.

To apply and for further information: <https://www.jobs.ac.uk/job/BNA771/research-assistant-lab-manager> Prof. Dan Nussey, Institute of Evolutionary Biology, University of Edinburgh, UK. Email: [dan.nussey@ed.ac.uk](mailto:dan.nussey@ed.ac.uk); Website: <http://www.ebi.ac.uk>

[/nussey.bio.ed.ac.uk/home](http://nussey.bio.ed.ac.uk/home) – The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336.

Dan Nussey <[dnussey@exseed.ed.ac.uk](mailto:dnussey@exseed.ed.ac.uk)>

## UFlorida MarineProtistEvolution

Assistant Professor: Marine Protist Proteomics and Metabolomics (39293) University of Florida: College of Liberal Arts & Sciences: 16900000 - LS-BIOLOGY <https://apply.interfolio.com/56255> Location Gainesville, FL Open Date Oct 12, 2018

**Description** The Department of Biology at the University of Florida College of Liberal Arts and Sciences invites applications for a full-time, nine-month, tenure accruing position at the level of Assistant Professor beginning August 16, 2019. We seek a colleague who works on marine protists (including but not limited to dinoflagellates, diatoms, and macrophytes) using proteomics and/or metabolomics approaches to address questions regarding their functions and impact on coastal and oceanic ecosystems (e.g., red tide). We especially encourage applications from candidates who would substantially contribute to the University of Florida's commitment to broadening participation in the biological sciences. The successful candidate will be expected to establish an extramurally-funded, internationally recognized research program. The candidate will also be expected to contribute to teaching at the graduate level (e.g., Plant Biochemistry), and at the undergraduate level, including Introductory Biology and in the Marine Sciences Major.

The University of Florida is among the top ten public universities in the United States. Research in the biological sciences at the University of Florida is conducted by faculty in many departments, across several Colleges and Institutes, providing a rich intellectual environment and extensive opportunities for collaboration. The successful applicant will join a collaborative group with strength in functional proteomics and metabolomics. The Biology Department interacts closely with the Whitney Laboratory for Marine Biosciences ([www.whitney.ufl.edu](http://www.whitney.ufl.edu)), the Genetics Institute ([ufgi.ufl.edu](http://ufgi.ufl.edu)), the Florida Museum of Natural History ([www.floridamuseum.ufl.edu](http://www.floridamuseum.ufl.edu)), the Interdisciplinary Center for Biotechnology Research ([www.biotech.ufl.edu](http://www.biotech.ufl.edu)), the High Performance Research Computer Cluster (HiPerGator, [www.rc.ufl.edu](http://www.rc.ufl.edu)), the Nature Coast Bio-

logical Station (<https://ncbs.ifas.ufl.edu>), the Southeast Center for Integrated Metabolomics (<http://-secim.ufl.edu>), the UF Biodiversity Institute <https://-biodiversity.institute.ufl.edu>, the UF Informatics Institute ([informatics.institute.ufl.edu](http://informatics.institute.ufl.edu)), the Water Institute ([waterinstitute.ufl.edu](http://waterinstitute.ufl.edu)), and the Plant Molecular and Cellular Biology Program ([pmcb.ifas.ufl.edu](http://pmcb.ifas.ufl.edu)).

The University of Florida counts among its greatest strengths and a major component of its excellence that it values broad diversity in its faculty, students and staff and creates a robust, inclusive and welcoming climate for learning, research and other work. UF is committed to equal educational and employment opportunity and access, and seeks individuals of all races, ethnicities, genders and other attributes who, among their many exceptional qualifications, have a record of including a broad diversity of individuals in work and learning activities.

### Qualifications

The successful candidate should possess a doctoral degree in the biological sciences, chemistry, oceanography, or other relevant discipline. Strong preference will be given to applicants with at least one year of postdoctoral experience, but exceptional applicants at the Ph.D. level may be considered. The salary is competitive and commensurate with qualifications and experience, and includes a full benefits package.

### Application Instructions

For full consideration, applications must be submitted online at <http://apply.interfolio.com/56255> and must include: (1) a letter summarizing the applicant's qualifications, ongoing research directions, and interests, (2) a complete curriculum vitae, (3) a research statement, (4) a teaching statement, and (5) a reference list (at least three names and email address). After initial review, applicants receiving further consideration will be asked to provide confidential letters of recommendation. Applications will be reviewed beginning November 5, 2018 as received and the position will remain open until filled. To ensure full consideration, application materials should be received by November 4, 2018. Applications received after this date may be considered at the discretion of the committee and/or hiring authority. Please send email inquiries or nominations to Professor Sixue Chen ([schen@ufl.edu](mailto:schen@ufl.edu)).

All candidates for employment are subject to a pre-employment screening which includes a review of criminal records, reference checks, and

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

## UFlorida PlantPhysiology

Assistant Professor in Plant Physiology (39295) University of Florida: College of Liberal Arts & Sciences: 16900000 - LS-BIOLOGY

### DESCRIPTION

The Department of Biology at the University of Florida College of Liberal Arts and Sciences invites applications for a full-time, nine-month, tenure accruing position at the level of Assistant Professor beginning August 16, 2019 in the area of whole plant physiology. We seek a broadly trained plant physiologist with knowledge across biological scales, ranging from biochemistry to ecosystem ecology. Areas of research may include, but are not limited to abiotic and biotic interactions, climate change, tropical biology, reproduction and development, carbon or nitrogen assimilation and cycling, water relations, energy budgets and resource partitioning, and photosynthesis. We especially encourage applications from candidates who would substantially contribute to the University of Florida's commitment to broadening participation in the biological sciences.

The University of Florida is among the top ten public universities in the United States. Research in the biological sciences at the University of Florida is conducted by faculty in many departments, across several Colleges and Institutes, providing a rich intellectual environment. The University has a strong culture of collaboration across disciplines fostered by interdisciplinary groups that include centers for Tropical Conservation and Development, the Florida Climate Institute, Plant Molecular and Cellular Biology, Biodiversity Institute, and the School of Natural Resources and the Environment.

The University of Florida counts among its greatest strengths a major component of its excellence that it values broad diversity in its faculty, students and staff and creates a robust, inclusive and welcoming climate for learning, research and other work. UF is committed to equal educational and employment opportunity and access, and seeks individuals of all races, ethnicities, genders and other attributes who, among their many exceptional qualifications, have a record of including a broad diversity of individuals in work and learning activities.

### QUALIFICATIONS

The successful candidate will be expected to establish an extramurally-funded, internationally recognized research program. The candidate will also be expected to develop and teach courses at the undergraduate and graduate levels, including an undergraduate plant physiology course with laboratory, and an advanced graduate course in the candidate's area of interest.

The successful candidate should possess a doctoral degree in the biological sciences or other relevant discipline. Strong preference will be given to applicants with at least one year of postdoctoral experience, but exceptional applicants at the Ph.D. level may be considered. The salary is competitive and commensurate with qualifications and experience and includes a full benefits package.

### APPLICATION INSTRUCTIONS

For full consideration, applications must be submitted online at <http://apply.interfolio.com/56258> and must include: (1) a letter summarizing the applicant's qualifications, ongoing research directions, and interests, (2) a complete curriculum vitae, (3) a research statement and (4) a teaching statement. In addition, names and email address for three references must be provided on the application. After initial review, letters of recommendation will be requested for selected applicants requesting them to upload their letters.

Applications will be reviewed beginning November 4, 2018 as received and the position will remain open until filled. To ensure full consideration, application materials should be received by November 3, 2018.

Send email inquiries or nominations to Dr. Francis E. Putz ([fep@ufl.edu](mailto:fep@ufl.edu)).

All candidates for employment are subject to a pre-employment screening which includes a review of criminal records, reference checks, and verification of education.

The selected candidate will be required to provide an official transcript to the hiring department upon hire. A transcript will not be considered "official" if a designation of "Issued to Student" is visible. Degrees earned from an educational institution outside of the United States require evaluation by a professional credentialing service provider approved by the National Association of Credential Evaluation Services (NACES), which can be found at <http://www.naces.org/>. The University of Florida is an equal opportunity institution dedicated to building a broadly diverse and inclusive faculty and staff. Searches are conducted in accordance with Florida's Sunshine Law. If an accommodation due to disability

is needed to apply for this position, please call (352) 392-2477 or the Florida Relay System at (800) 955-8771 (TDD).

EQUAL EMPLOYMENT OPPORTUNITY STATEMENT

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## UGeorgia PlantEcolEvolution

The University of Georgia Faculty Position in Plant Ecology

The Department of Plant Biology invites applications from outstanding candidates for a tenure track faculty position at the Assistant or Associate Professor level. The position will have available research funds from a Haines Family Professorship endowment. This search is open to candidates wishing to pursue fundamental questions in plant ecology within an evolutionary context, with an emphasis on above ground processes. Areas of specialization can include, but are not limited to, climate induced stress responses to biotic and/or abiotic factors, carbon budgets, plant-pollinator interactions, invasion and/or conservation biology. Field-based research should be integrated with other analytical tools (e.g. molecular, genomic, modeling, theoretical, and/or computational approaches). For rank of Assistant Professor, applicants must have a PhD (or equivalent) in Plant Ecology or related discipline, 1 year of postdoctoral experience, a solid publication record, and a welldeveloped research plan. For rank of Associate Professor, applicants must have PhD (or equivalent) in Plant Ecology or related discipline, 1 year of postdoctoral experience, a solid publication record, and a welldeveloped research plan, and must provide convincing evidence of a national reputation in their field. The successful candidate will be expected to establish a highimpact, externally funded research program and contribute to classroom instruction and mentoring in the Department. A competitive salary and ample resources will be provided.

The University of Georgia is a research-intensive land-grant university located in Athens-Clarke County with outstanding opportunities for collaborations among faculty in the Plant Center, Odum School of Ecology, War-

nell School of Forestry and Natural Resources, College of Agricultural and Environmental Studies, and the Phenomics and Plant Robotics Center. Opportunities for off-campus interactions and fieldwork include Savannah River Ecology Lab, Coweeta Hydrologic Lab, the Marine Institute on Sapelo Island, and the UGA campus in Costa Rica. Athens lies in the northern Piedmont region of Georgia an hour-plus drive from Atlanta and its spectrum of cultural and mercantile resources, less than 2 hours from the Chattahoochee National Forest and southern Appalachian mountains, and within easy driving distance of the Atlantic coast. Athens is home to a thriving arts and music community and prides itself on its classical history and cultural diversity (<http://www.visitathensga.com>).

Interested candidates should submit application materials to <http://www.ugajobsearch.com/postings/31478>. Each application should include: cover letter; curriculum vitae; a statement of research interests and goals (no more than 3 pages); and a statement of teaching accomplishments and philosophy. Applicants should arrange for the submission of a minimum of 3 letters of reference to [pbiopositions@uga.edu](mailto:pbiopositions@uga.edu). Questions may be directed to the Search Committee at this e-mail address. Review of applications will begin on November 13, 2018, and continue until the position is filled.

The Franklin College of Arts and Sciences, its many units, and the University of Georgia are committed to increasing the diversity of its faculty and students, and sustaining a work and learning environment that is inclusive. Women, minorities and people with disabilities are encouraged to apply. The University of Georgia is an Equal Opportunity/Affirmative Action employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, ethnicity, age, genetic information, disability, gender identity, sexual orientation, or protected veteran status. Persons needing accommodations or assistance with the accessibility of materials related to this search are encouraged to contact Central HR ([hrweb@uga.edu](mailto:hrweb@uga.edu)). Please do not contact the department or search committee with such requests.

Dorset Trapnell <[dorset@uga.edu](mailto:dorset@uga.edu)>

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## UHawaii Manoa Evolutionary Entomology

Please find pasted below our department's ad for an entomologist. We specifically include 'evolution' in the job description and would really like candidates with an evolutionary background to consider the position.

Title: Assistant Professor in Entomology (I3)

Hiring Unit: University of Hawaii, Manoa, College of Tropical Agriculture and Human Resources, Department of Plant and Environmental Protection Sciences

Position FTE: 60% Instruction, 40% Research

Location: Manoa, Honolulu, HI

Closing date: Continuous ' application review begins

Monthly Type: 9 month

Tenure Track: Tenure track

Full Time/Part Time: Full Time

Temporary/Permanent: Permanent

Other Conditions:

To begin approximately \*Aug 2019 \*or soon thereafter. For best consideration, all application materials should be received by \*Jan 15, 2019.\*

Duties and Responsibilities: Contribute to an excellent departmental undergraduate teaching program and Entomology graduate program by teaching the following courses: PEPS 250 (World of Insects), General Entomology (PEPS 363 and 363L) yearly; Foundations of Pest Management (PEPS 421) every other year; an appropriate graduate course identified as meeting program needs, such as Insect Physiology, or Insect Identification (taxonomy) every other year; and sharing responsibility periodically for a discussion/seminar and a departmental graduate seminar.

Contribute to program assessment efforts, advise and mentor graduate students, develop a successful research program in fields including but not limited to evolution, management, ecology, physiology or behavior of insects.

Provide service to the college, university, and community, and perform other faculty duties as required.

Minimum Qualifications:

Earned doctorate with research experience in Entomol-

ogy as evidenced by publications in peer-reviewed journals. Successful experience in instruction at the college level, as evidenced by written or web-based course materials, reports, references, and/or positive student evaluations.

Desirable Qualifications:

Research experience with insects as evidenced by publications in peer-reviewed journals. Experience in course and/or program development, and assessment. Demonstrated success in obtaining extramural funding. Evidence of self-improvement in the area of instruction, such as participation in relevant courses, seminars, or other programs.

To Apply:

Submit the following to the address listed below: 1) Cover letter indicating how you satisfy the minimum and desirable qualifications; 2) curriculum vitae; 3) official university transcripts (copies accepted, however official transcripts will be required upon hire); and 4) names, addresses, phone numbers, and e-mail addresses of three persons who will provide confidential letters of reference.

Application address:

Search Committee Chair, Department of Plant and Environmental Protection Sciences, College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa, 3150 Maile Way, Honolulu, HI 96822.

Inquiries: Dr. Koon Hui Wang; koonhui@hawaii.edu

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

Employment is contingent on satisfying employment eligibility verification requirements of the Immigration Reform and Control Act of 1986; reference checks of previous employers; and for certain positions, criminal history record checks.

In accordance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, annual campus crime statistics for the University of Hawaii may be viewed at: <http://ope.ed.gov/security/>, or a paper copy may be obtained upon request from the respective UH Campus Security or Administrative Services Office.



Daniel Rubinoff <rubinoff@hawaii.edu>

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## UHouston EvolutionEcology

Faculty Positions in Evolution and Ecology at the University of Houston

The Department of Biology and Biochemistry at the University of Houston invites applications for two tenure-track faculty positions at the rank of Assistant or Associate Professor. Applicants with research interests and a record of accomplishment using quantitative approaches in evolutionary biology or ecology are encouraged to apply. Successful applicants will have research interests that complement existing departmental strengths in evolutionary genetics and genomics, evolutionary ecology, community ecology, and evolutionary and ecological theory.

The position requires a Ph.D. and significant relevant academic experience. Faculty members are expected to establish and maintain nationally competitive externally funded research programs and to participate in graduate and undergraduate teaching. The Department of Biology has state-of-the-art laboratory space, well-equipped core facilities, high-performance computing resources, and a coastal research and education center. Broad opportunities exist for research collaborations within the University of Houston as well as at nearby institutions.

Interested applicants should submit a curriculum vitae with names and contact information for three references, research plan, one-page statement of teaching interests, and cover letter to: <https://jobs.uh.edu> (search under Faculty for FAC000703, then click 'Apply Online'). Review of applications will begin by November 1, 2018 and continue until the position is filled. The University of Houston, with one of the most diverse student bodies in the nation, seeks to recruit and retain a diverse community of scholars. The University of Houston is an Affirmative Action/Equal Opportunity Employer. Women, minorities, veterans, and persons with disabilities are encouraged to apply. The University of Houston is responsive to the needs of dual-career couples.

“rzufall@Central.UH.EDU” <rzufall@Central.UH.EDU>

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## Uillinois Chicago Head BiologicalSciences

The College of Liberal Arts and Sciences in the University of Illinois at Chicago (UIC) seeks to recruit an exceptional scholar who can provide energetic and visionary leadership as the Head of the Department of Biological Sciences. The successful candidate will have an outstanding research record, excellent leadership skills, and be committed to excellence in teaching.

The Head will be expected to maintain a world-class research program in an area broadly related to the major themes of the department. The Head will provide strategic leadership and direction for all aspects of the department and have responsibility for the coordination and administration of the overall academic agenda and education activities in the department. The Head will oversee all personnel, curricular, financial, and administrative functions of the department. Applicants must qualify for the rank of full professor and have a Ph.D. or equivalent degree in the biological sciences or a related field, a proven record as a leader, an international reputation for research accomplishments, a commitment to teaching excellence and student success, and excellent managerial and communication skills.

Located in the heart of one of the worlds great cities, UIC is the citys only Carnegie Research 1 public university. UIC has 31,000 students, 15 colleges, and a hospital and a health sciences system. The Department of Biological Sciences has active research programs in Ecology and Evolution; Molecular, Cell and Developmental Biology; and Neurobiology. The department currently has 28 tenure-line faculty and 9 non-tenure track faculty, 1800 undergraduates and nearly 100 graduate students. See <http://bios.uic.edu/> for more information.

UIC is federally recognized as a Minority Serving Institution (MSI) through its status as an Asian American and Native American Pacific Islander Serving Institution (AANAPISI) and a Hispanic Serving Institution (HSI), fully funded by the U.S. Department of Education.

To apply for this position, please complete and submit an online application with the names and e-mail addresses of at least three references, and upload a cover letter, full curriculum vitae, and research and teaching statements at <https://jobs.uic.edu>. Click on the Job Board and then on the job link. To ensure full con-

sideration, application materials must be received by December 31, 2018, but applications will be accepted through January 15, 2019. Inquiries should be directed to Edward Drogos (edrogo2@uic.edu). Final authorization of the position depends upon the availability of funding.

UIC is an affirmative action, equal opportunity employer, dedicated to the goal of building a culturally diverse and pluralistic faculty and staff committed to teaching and working in a multicultural environment. We strongly encourage applications from women, minorities, individuals with disabilities, and covered veterans. The University of Illinois may conduct background checks on all job candidates upon acceptance of a contingent offer. Background checks will be performed in compliance with the Fair Credit Reporting Act.

“Shingleton, Alexander” <ashingle@uic.edu>

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## Uillinois UC VisitingSci EvolutionaryImmunology

Visiting Research Specialist Department of Anthropology University of Illinois at Urbana-Champaign

The Brinkworth Evolutionary Immunology and Genomics lab at the University of Illinois Urbana-Champaign is seeking a visiting research specialist to conduct biological lab research in primate immunology and infectious disease. The position is responsible for long-term culturing of primary and immortalized cells, raising and maintaining microorganism populations (bacterial and parasite) and infecting eukaryotic cells with such organisms using clean immunology technique, completing a range of molecular and immunological assays and protocols including ELISA, PCR, nucleic acid extraction, fluorescent microscopy, cell sorting and FACS, and maintain associated lab records including the completion of library construction and cell-based assays. Duties also include helping guide undergraduate interns in lab support tasks and assisting in maintenance of the lab and its inventory. For additional information on the lab visit [www.jfbrinkworth.com](http://www.jfbrinkworth.com). The University of Illinois is an Equal Opportunity, Affirmative Action employer. Minorities, women, veterans and individuals with disabilities are encouraged to apply. For more information, visit <http://go.illinois.edu/EEO>. To learn more about the University’s commitment to diversity, please visit <http://www.inclusiveillinois.illinois.edu> **QUALIFICATIONS**

Required: \* Bachelor degree in Biology or a related field \* Experience raising pathogen populations in eukaryotic cells and history of long term culturing of primary and immortalized cells. \* Experience in microbiological or immunological research settings where the use of clean technique was required. Experience in cornerstone molecular techniques such as PCR, nucleic acid extraction. Experience rearing and infecting cells with BSL2 level pathogens. \* Strong attention to detail and meticulous lab notebook keeping. \* Ability to work independently and collaboratively. \* Knowledge of clean immunological technique used in pathogen rearing and eukaryotic cell care. \* Knowledge of immunological/genetic techniques such as PCR, nucleic acid extraction, ELISA. FACS. \* Knowledge of life cycle of intracellular pathogens Yersinia pestis, Toxoplasma gondii.

Preferred: \* Bachelor degree in Anthropology or Evolutionary Biology \* Experience culturing and infecting cells with Toxoplasma gondii, and bacterial pathogens. \* Experience working with fluorescent microscopy slide preparation, fluorescent microscopy visualization, cell sorting and FACS. \* Prior responsibility for large and small research projects. \* Experience reading scientific literature in immunology, genomics, evolution and disease. \* RNAseq assembly, R statistical analysis, Linux command line

### SALARY AND APPOINTMENT INFORMATION

This is a full-time visiting position. The expected start date is as soon as possible after the closing date. Salary is commensurate with experience and qualifications.

### APPLICATION PROCEDURES AND DEADLINE INFORMATION

To apply for this position, please create a candidate profile at <https://jobs.illinois.edu> and upload your cover letter and resume by October 25, 2018. Online application will require names and contact information including email addresses for three professional references. Full consideration will be given to complete applications received by the closing date. The University of Illinois conducts criminal background checks on all job candidates upon acceptance of a contingent offer.

For further information regarding application procedures, you may contact Dr. Jessica Brinkworth at [jfbrinkworth@illinois.edu](mailto:jfbrinkworth@illinois.edu).

“Brinkworth, Jessica F” <jfbrinkw@illinois.edu>

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## UKansas Paleobotanist

The University of Kansas (KU) seeks applicants for the Thomas N. Taylor Assistant Professorship/Assistant Curatorship in Paleobotany. This position is a full-time, tenure-track academic year joint appointment in the Department of Ecology and Evolutionary Biology and the Biodiversity Institute. The University of Kansas attracts outstanding graduate and undergraduate students. It is located in Lawrence, a Midwestern college town offering a very high quality of life, with vibrant arts and business communities, and top ranked schools in the state. Lawrence is less than an hour's drive from the metropolitan Kansas City area, providing good access to an international airport, professional sports arenas, major arts venues, and diverse museums.

For a complete announcement and to apply online, go to: <http://employment.ku.edu/academic/13025BR> lhileman@ku.edu

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## UKentucky EcoEvoPathogens

The Department of Biology at the University of Kentucky (Lexington, Kentucky) invites applications for a tenure-track Assistant Professor position starting in the fall of 2019. We seek candidates using innovative approaches to fundamental questions in emerging pathogens, and the study of infectious diseases that have newly appeared in a population, or have existed but are rapidly increasing in incidence or geographic range. We seek an innovative program employing \*microbial organisms\* to investigate fundamental questions about the \*ecology and evolution of pathogens\*, including but not limited to the evolution and function of host-microbiome interactions, microbiome colonization and community assembly, host-parasite interactions, and the genetics and evolution of pathogen traits. We encourage candidates interested in programs that integrate empirical approaches with theoretical, statistical, or computational methods.

Candidates must have a Ph.D. or equivalent degree, postdoctoral experience (minimum of six months), and previous research by the successful applicants must be

published in high-quality scientific journals. We encourage candidates with evidence of an ability to obtain extramural grant support and/or some teaching experience. Individuals will be expected to teach one of the core courses for the undergraduate degree in biology and to participate in our graduate programs. Responsibilities for the successful candidates include (1) establishment of an independent research program that is supported by awards from extramural agencies; (2) contribution to the teaching mission of the undergraduate program; (3) teaching and mentoring for graduate students and postdoctoral fellows; and (4) service for the department, university, and profession.

As a department and university, we are strongly committed to creating an inclusive and effective teaching, learning, research, and working environment for all.

Applicants must submit the following: 1) letter of application, 2) CV, 3) research plan (upload under Specific Request 1), 4) description of teaching interests (upload under Specific Request 2), and 5) a reflection, on the applicant's commitments, approaches, and insights related to inclusion, diversity, and equity (upload under Specific Request 3). Also provide the names and contact information for three references when prompted in the academic profile. This information may be utilized to solicit recommendation letters from your references within the employment system.

For more details on the department and the university, visit us on the web at <https://bio.as.uky.edu/>. Questions about the Department and/or these searches should be addressed to Dr. Vincent Cassone, Chair, Department of Biology, University of Kentucky, 101D Thomas Hunt Morgan Building, Lexington, KY 40506; [vincent.cassone@uky.edu](mailto:vincent.cassone@uky.edu).

Review of applications will begin \*October 22, 2018\* and continue until the position is filled.

– Jeremy Van Cleve

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

Jeremy Van Cleve <[jvanclave@uky.edu](mailto:jvanclave@uky.edu)>

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## UMaryland LabTech Evolutionary Genomics

Title: Lab Manager

Start: Immediately with flexible start date

A full-time position is open for a full time Lab Manager/Research Assistant in the Department of Biology at the University of Maryland, College Park (Machado Lab). The position is for two and a half years with option to extend based on additional funding. The Machado lab uses genomic approaches to understand the mechanisms that underlie patterns of species divergence and genetic variation in insects and plants.

The selected candidate will support research on functional evolutionary genomics in *Drosophila*. Duties: maintain inventory of lab supplies and samples in freezers, maintain *Drosophila* fly lines in culture, perform molecular work (DNA and RNA extractions, PCR, cloning, next generation sequencing library construction), help with the production and design of molecular reagents for generating *Drosophila* transgenic lines, help training and working with undergraduate students. Expected qualifications: strong background in molecular biology techniques, previous work with *Drosophila* (desired but not required), Bachelor's degree in Biology with at least two years of research experience working in a molecular lab, basic knowledge of computer sequence software (e.g. Geneious), ability to work independently and work on multiple assignments with overlapping deadlines, excellent organizational skills. Salary commensurate with experience.

Use this link to apply: <https://ejobs.umd.edu/postings/64253> Upload a single pdf with a cover letter describing your interest in the position and qualifications, a current CV, and the names and contact information for two or three references. Applications will be reviewed upon receipt and the position will remain open until filled. The position is available immediately with a flexible start date.

The University of Maryland, College Park, an equal opportunity/affirmative action employer, complies with all applicable federal and state laws and regulations regarding nondiscrimination and affirmative action; all qualified applicants will receive consideration for employment. The University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, national origin, physical or mental disability, protected veteran status, age, gender identity or expression, sexual orientation, creed, marital status, political affiliation, personal appearance, or on the basis of rights secured by the First Amendment, in all aspects of employment, educational programs and activities, and admissions.

Carlos A. Machado Department of Biology University of Maryland, College Park 1210 Biology-Psychology Buildingâ euro À College Park, MD

20742 <http://www.clfs.umd.edu/biology/machadolab/> "machado@umd.edu" <machado@umd.edu>

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## UMinnesota DataScientist FoodAnimalBiology

Researcher 6, Data Scientist in Food Animal Biology and Production Systems. Start: Immediately with flexible start date. Job ID 325017 <https://z.umn.edu/-AnSciGEMS> This is a 12-month, 100% time, annually renewable appointment. The position has research funding by way of MnDrive (Minnesota's Discovery, Research, and Innovation Economy). This person will hold an adjunct position in the Department of Animal Science, subject to departmental approval, and will work closely with the Integrated Animal Systems Biology (IASB) Team. Located in the G.E.M.S/IAA, a CFANS Interdisciplinary Initiative, St. Paul Campus, University of Minnesota.

**DESCRIPTION** Optimizing resources in food animal production requires the integration of fundamental, complex biological processes involving numerous nutrition and health interventions with economics and business models to create new knowledge for more effective decision-making. The person in this position is expected to be a core member of the IAA/G.E.M.S team working closely with the IASB. They will also play an essential role in continuing to develop collaborations with faculty in the International Science and Technology Policy and Practice Center (InSTePP), Center for Animal Health and Food Safety (CAHFS), and various current and prospective external partners. Expertise in managing large data sets, machine learning, mathematical modeling, and informatics is essential. This is a 100% research position.

The successful candidate will be expected to: Work in a team environment to assist in the development of core integrated animal systems biology. 40% Interface with the Department of Animal Science faculty members to determine their data collection, transfer, interoperability, analysis, and sharing needs, propose data analysis models, establish data libraries (metabolites, nucleic acid data on genes and microbes, data on animal physiological responses to diets and diseases), and assist IASB and other Animal Science faculty to integrate data across disciplines in multiple research projects. Assist in development and implementation of analytical platforms for analyzing large-scale data on animal genomics and mi-

crobiome, production system productivity interactions involving nutrition, housing systems, environmental impacts, health status, economics, and other biotic and abiotic influences on animal systems. Contribute to ongoing development and maintenance of G.E.M.S./IAA ontologies and controlled vocabularies to ensure interoperability of animal systems biophysical data with the other databases in G.E.M.S./IAA. Strengthen collaboration and networking among members of the IASB team, college and university-wide ag and life sciences informatics, IAA, and external academic, government, and industrial sources of agricultural data and information. 30% Facilitate networking and information exchange among these teams/domains to identify potential research projects and research collaborations. Aid in the analysis and integration of large-scale data sets produced by various sources, and conduct data mining to identify potential patterns that can serve as researchable questions for research proposals. Contribute to joint grant writing efforts among these teams/domains. Coordinate and contribute to writing interdisciplinary publications including journal articles, book chapters, presentations, and online content. 15% Design and assist in the development of apps with easy to use interfaces that aggregate data from micro to macro scales for decision-making involving animal systems. 15%

**Essential Qualifications:** Ph.D. in data sciences, bioinformatics, animal/biological science or related field. Outstanding capacity to work on the analytics of global (including the U.S.) animal production systems, productivity, and inter-relations to agronomic and crop processing systems in a cross-disciplinary manner to link animal science data and modeling to economics and social outcomes. Excellent skills in computational biology (with an emphasis on genomics, microbiome, nutrition, health, and productivity methods) and biophysical modeling. Ability to efficiently manage large datasets. Compelling written and oral communication skills. Excellent programming skills, and especially demonstrated experience using R or Python. A proven ability to carry out research in a transdisciplinary environment.

**Desired Qualifications:** Excellent record of publications and prospects for continued professional productivity (encompassing both professional articles and policy outreach material, including web based output) Demonstrated potential for preparing successful grant proposals. Knowledge of and experience working with industry, NGO's, and government partners.

**SALARY AND BENEFITS** Salary is competitive and commensurate with the professional experience and qualifications. Fringe benefits include employee health, dental, and

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## UNottingham Adaptation to Environment

Dear Colleagues

The School of Life Sciences at the University of Nottingham is advertising two positions in 'Adaptation to the Environment'.

Associate Professor: <https://www.nottingham.ac.uk/jobs/currentvacancies/ref/MED258718> Assistant Professor: [https://www.nottingham.ac.uk/jobs-currentvacancies/ref/MED258618](https://www.nottingham.ac.uk/jobs/currentvacancies/ref/MED258618) Full text of adverts are pasted below.

Best wishes Andrew MacColl

Associate Professor of Adaptation to the Environment Reference MED258718 Closing Date Thursday, 6th December 2018 Job Type Research & Teaching Department Life Sciences Salary £51630 to £61618 per annum (pro-rata if applicable) depending on skills and experience. Salary progression beyond this scale is subject to performance. The School invites applications to the above role. The role holder will be expected to make a significant leadership impact within their academic area in research and teaching. Building on an established track record in their field the role holder will be able to develop a programme of research that is supported by funding from research councils and other external organisations, contribute to our teaching on the Biology, Zoology, Genetics and Natural Sciences degrees and contribute to leading curriculum design.

Line management responsibilities including the responsibility for the professional development, mentoring of team members and contribution to the overall administration of the School.

As a division within the School, we have existing research strengths in ecology and evolution, microbial engineering, microbial pathogenicity and immunity, developmental biology and human molecular genetics. Research is focussed on both pro- and eukaryotes. More broadly, we are aligned to two of the University's cross-faculty research initiatives, which are "Future Foods"

and “Green Chemicals”, and also the University’s ‘Life in Changing Environments’ Research Priority Area.

During the first two years of the appointment teaching and administration burdens will be minimised to allow the role-holder to focus on securing new research income, submitting high quality publications, and kick-starting collaborative activities.

The role will be responsible for generating new intellectual understanding/knowledge through the application of knowledge and for developing ideas for application of research and teaching outcomes.

Candidates must hold a PhD or equivalent in a relevant subject area.

As part of the application process, please identify what you consider to be your best 4 papers to date.

This is a full-time permanent role, however job share arrangements may be considered.

More information on this and other posts within the School of Life Sciences can be found at <http://www.nottingham.ac.uk/go/Life-Sciences-Recruitment>. Informal enquiries may be addressed to Dr Sara Goodacre: [sara.goodacre@nottingham.ac.uk](mailto:sara.goodacre@nottingham.ac.uk) and Dr Andrew MacColl: [Andrew.maccoll@nottingham.ac.uk](mailto:Andrew.maccoll@nottingham.ac.uk). Please note that applications sent directly to these email addresses will not be accepted.

The School of Life Sciences holds an Athena Silver SWAN Award, in recognition of our commitment to supporting and advancing women’s careers in the life sciences (STEMM). You can read more about this initiative at <http://www.nottingham.ac.uk/life-sciences/documents/athena-swan-silver-award.pdf>. The University of Nottingham is an equal opportunities employer and welcomes applications from all sections of the community.

Assistant Professor of Adaptation to the Environment Reference MED258618 Closing Date Thursday, 6th December 2018 Job Type Research & Teaching Department Life Sciences Salary £36261 to £48677 per annum (pro-rata if applicable) depending on skills and experience. Salary progression beyond this scale is subject to performance. The School of Life Sciences seeks applications for an Assistant Professor from researchers working in the broad area of ‘Adaptation to the Environment’. As a division within the School, we have existing research strengths in ecology and evolution, microbial engineering, microbial pathogenicity and immunity, developmental biology and human molecular genetics. Research is focussed on both pro- and eukaryotes. More broadly, we are aligned to two of the University’s cross-faculty research initiatives, which are “Future Foods” and “Green

Chemicals”, and also the University’s ‘Life in Changing Environments’ Research Priority Area.

We welcome applicants in any area of biology but particularly those that can contribute to our current strengths and form bridges between our current themes. We strongly encourage applicants who can contribute to

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## UPittsburgh LabTech PlantSymbiontInteractions

The Wood Lab in the Department of Biological Sciences at the University of Pittsburgh is hiring a research technician to assist with field- and lab-based research in the evolutionary ecology and genetics of plant-symbiont interactions.

Our lab’s research explores how genetic tradeoffs between attracting mutualists and repelling parasites shapes the evolution of species interactions. We combine fieldwork, greenhouse experiments, and genomics & transcriptomics to explore these questions in the root microbiome of legumes in the genus *Medicago*, primarily focusing on interactions with mutualistic nitrogen-fixing bacteria (*Ensifer* spp.) and root-parasitic nematodes (*Meloidogyne* spp.). The person in this position will be responsible for assisting with field and greenhouse experiments; processing plant, bacteria, and nematode samples; collecting, analyzing, and managing data; ordering supplies; managing the lab and maintaining equipment; and training and managing undergraduate researchers. The Dietrich School of Arts & Sciences is committed to building a culturally diverse staff. Excellent interpersonal and relationship-building skills and the ability to work effectively with a wide range of individuals and constituencies in support of a diverse community.

More information about the lab can be found at [the-wood-lab.net](http://the-wood-lab.net), and about the position at <https://www.pittsource.com/postings/167973>. For more information or to make an informal inquiry about the position, please send a CV and a cover letter to Corlett Wood ([corlett.wood@pitt.edu](mailto:corlett.wood@pitt.edu)). Review of applications will begin immediately. The position will remain open until the right candidate is found.

Corlett Wolfe Wood, Ph.D. Assistant Professor Department of Biological Sciences University of Pittsburgh  
 corlett.wood@pitt.edu [www.the-wood-lab.net](http://www.the-wood-lab.net)  
 corlett.wood@pitt.edu

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## UPretoria ResManager ConservationBiol

Position Available: Resident Research Manager Kalahari Research Centre

The Kalahari Research Trust is looking for a suitably qualified applicant to take on the role of Resident Research Manager at the Kalahari Research Centre (KRC) for the next three years starting in 2019. The KRC is based at the Kuruman River Reserve twenty-seven kilometers to the east of Van Zylsrus in the Northern Cape Province (26° 58' 46" S 21° 50' 1" E). The Research Manager is responsible for the KRC and the 3,200 ha Kuruman River Reserve, as well as for organizing the long term, individual based ecological and evolutionary studies on meerkats and ground squirrels based at the site. The station's staff include a logistics manager, several research assistants and six local staff. The facilities for which the manager will be responsible include a temperature controlled breeding facility and laboratory for mole-rats, as well as two separate farm houses and accommodation for resident researchers. In addition, parts of the research are led by several international research teams, working on meerkats, mole rats, ground squirrels, pied babblers, hornbills and drongos. The Research Manager is responsible for coordinating and supporting these teams and assisting with the organization of new projects. At any time, there are normally thirty to fifty researchers and assistants working at the site.

The successful candidate will have experience of field research in a relevant area of ecology, evolutionary biology or wildlife biology. Both practical skills and IT experience would be advantageous and he/she will need to be fluent in Afrikaans and English. They will be resident at the KRC and accommodation will be provided. The salary will be between R300 000 and R400 000 per year.

CVs and names of two referees to be sent to Dr D Gaynor at [dgaynor@iafrica.com](mailto:dgaynor@iafrica.com) as soon as possible or by 15 November. Candidates will be shortlisted and interviewed in December.

Details of the KRC and the work conducted there

can be found at <http://kalahari-meerkats.com/kmp/> and <https://portal.kalahariresearch.org/general-reserve-information/> and detailed description of the roles and responsibilities of the research manager can be found at <https://portal.kalahariresearch.org/general-reserve-information/positions-available>

Best wishes,

Dave

Dr Dave Gaynor Manager Kalahari Meerkat Project Mammal Research Institute University of Pretoria Kuruman River Reserve Van Zylrus Northern Cape 8467

Email: [dgaynor@iafrica.com](mailto:dgaynor@iafrica.com) Cell (MTN): (078)252-9141; Cell (Vodacom): (072) 472-5318

David Gaynor <[dgaynor@iafrica.com](mailto:dgaynor@iafrica.com)>

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## UQueensland QuantitativeBiology

Lecturer/Senior Lecturer in Quantitative Biology Apply now Job no:505281 Area: Faculty of Science Salary (FTE): Advertised at multiple classifications Work type: Full Time - Continuing Location: St Lucia

<http://jobs.uq.edu.au/caw/en/job/505281/-lecturersenior-lecturer-in-quantitative-biology>

The School of Biological Sciences is recognised as one of the most successful Biology Schools (departments) in Australia, with 43 full-time academic staff, > 40 post-doctoral researchers, and over 200 enrolled PhD students. The School has broad expertise across ecology and evolution, molecular and quantitative genetics, paleobiology, developmental biology, plant and animal physiology, and conservation biology. Our research programs involve a diverse array of taxa, ranging across microorganisms, animals and plants. Special opportunities for biological research and teaching are provided by our proximity to the many special marine and terrestrial subtropical systems. Research programs in the School take advantage of model and non-model organisms and many include a strong quantitative and modelling focus.

The School of Biological Sciences strives for an equitable, inclusive and family-friendly working environment. The leadership of our School is committed to supporting academic staff before, during and following parental and other carers leave, and aims to provide an academic environment that is understanding of a reasonable work-life balance.

Further information and details of the research interests of academic staff may be accessed on the schools web site at <http://www.biology.uq.edu.au> The role We are interested in recruiting ecologists, evolutionary biologists and geneticists whose research approaches rely on high-performance computing, mathematical modelling or modern statistical analyses to ask questions about biological systems. In this job, you will contribute to our collegial and collaborative School; be centrally involved in the development and delivery of a new Masters degree program in Quantitative Biology; contribute to undergraduate teaching; and develop a successful independently funded research program.

The person Though applicants from a wide range of biology-focused quantitative backgrounds are encouraged to apply, we are particularly interested in people holding a PhD and postdoctoral experience in quantitative ecology, evolutionary biology, genetics or applied mathematics (including statistics with a biological focus). In these jobs, you will also participate in our Schools undergraduate programs in ecology, zoology, marine biology and/or genetics and we especially encourage you to apply if you have experience working with non-model plant, animal or micro-organism systems and if you complement existing research strengths in the School of Biological Sciences: <https://biological-sciences.uq.edu.au/research/research-strengths>. The Quantitative Biology Masters program will have a foundation in the R statistical language and will utilize High Performance Computing facilities. Experience with R is thus essential and experience with HPC is useful but not essential. Additional experience with, or potential to teach in, terrestrial or marine field settings is desirable but not essential.

The University of Queensland values diversity and inclusion and actively encourages applications from those who bring diversity to the University. Please refer to the University's Diversity and Inclusion webpage (<https://staff.uq.edu.au/information-and-services/human-resources/diversity>) for further information and points of contact if you require additional support.

This role is a full-time position; however flexible working arrangements may be negotiated.

Accessibility requirements and/or adjustments can be directed to [science.hr@uq.edu.au](mailto:science.hr@uq.edu.au)

Remuneration This is a full-time continuing appointment at Academic Level B or C.

The remuneration for Academic Level B will be in the range \$92,142.74 - \$109,419.20 p.a., plus employer superannuation contributions of up to 17% (total package

will be \$107,807.01 - \$128,020.46 p.a.)

The remuneration for Academic Level C will be in the range \$112,874.46 - \$130,150.91 p.a. plus employer superannuation contributions of up to 17% (total package will be \$132,063.12 - \$152,276.56 p.a.)

Position Description 505281 - Lecturer Snr Lecturer Quantitative - Biology.pdf (go to <http://jobs.uq.edu.au/caw/en/job/505281/lecturersenior-lecturer-in-quantitative-biology> to download file).

Enquiries

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## URochester EcologyEvolution

University of Rochester, Department of Biology FACULTY POSITION IN ECOLOGY AND EVOLUTION

The Department of Biology at the University of Rochester (<https://www.sas.rochester.edu/bio/>) invites applications for a tenure-track Assistant Professor position in ecology and evolution as part of ongoing growth hires. We are searching broadly for applicants whose research program incorporates genomic, computational or theoretical approaches to answer important questions in ecology and evolution. We seek applicants whose research would expand the breadth of our existing research areas, organisms and approaches, and synergize with our strength in genetics and genomics. Research areas of interest include but are not limited to ecological genetics and genomics, species interactions, phylogenomics, and microbial systems.

The successful candidate is expected to establish an externally funded research program and contribute to undergraduate and graduate teaching and research mentoring. Qualifications include a PhD and academic credentials commensurate with a candidate's current position. The University of Rochester offers generous startup funding and strong institutional support. Resources include state of the art computing infrastructure and core facilities in genomics. The integrated campus offers interactions with the newly established Goergen Institute for Data Science and the adjacent University of Rochester Medical Center.



Candidates should upload application materials to our online application system (<https://www.rochester.edu/faculty-recruiting/>). Review of applications will begin November 15 and continue until the position is filled. Complete applications include: a cover letter, curriculum vitae, a statement of research interests and plans, a statement of teaching qualifications and interests, three letters of reference, pdfs of three publications, and a statement of your commitment to advancing equity and fostering an inclusive and diverse community in academia. The one-page diversity and inclusion statement may include your values, past experience, future plans, and/or leadership in relationship to teaching, research, or service. Instructions for supplying the reference letters are provided on the application website. The anticipated start date of the position is July 2020.

The University of Rochester has a strong commitment to diversity and to groups underrepresented in higher education. The University is an Equal Opportunity Employer and all qualified applicants will receive consideration for employment without regard to race, color, sex, religion, age, sexual orientation, gender identity or expression, national origin, disability, or protected veteran status.

EOE / Minorities / Females / Protected Veterans / Disabled

Justin Fay <[fayjustin@gmail.com](mailto:fayjustin@gmail.com)>

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### USDA Geneva NY SeedCropsCurator

This position is responsible for the ex situ conservation of genetic diversity of approximately 200 plant taxa. Expertise in population genetics, plant systematics and taxonomy is essential.

USDA-ARS Plant Genetic Resources Unit (PGRU) has a vacancy for a PhD level position that will be posted soon (on <https://www.usajobs.gov/>) for a Seed Crops Curator, located on the campus of Cornell AgriTech at NYSAES in Geneva, NY. The target date for the announcement is November 9th (approximate date). Please pass along this message to any potential candidates. Any questions can be directed to Joanne Labate [joanne.labate@ars.usda.gov](mailto:joanne.labate@ars.usda.gov) or Gan-Yuan Zhong [ganyuan.zhong@ars.usda.gov](mailto:ganyuan.zhong@ars.usda.gov).

Sincerely, Joanne

Molecular Biologist and Acting Curator for Seed

Crops USDA-ARS Plant Genetic Resources Unit Geneva, NY 14456 (315)787-2438 office (315)787-2391 lab (315)787-2339 FAX [Joanne.Labate@ars.usda.gov](mailto:Joanne.Labate@ars.usda.gov) <http://courses.cit.cornell.edu/jl265/> “Labate, Joanne” <[Joanne.Labate@ARS.USDA.GOV](mailto:Joanne.Labate@ARS.USDA.GOV)>

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### USouthernCalifornia ComparativeEvolution

The Department of Biological Sciences in the Dornsife College of Letters, Arts and Sciences at the University of Southern California invites applications for a tenure-track Assistant Professor or tenured Associate Professor position in the area of Comparative, Evolutionary and Population Genetics. The ideal candidate is expected to have a rigorous mathematical, computational, and/or statistical background. Priority will be given to applicants based on the overall originality of their work and promise for establishing a strong independent research program.

The successful candidate will join the Quantitative and Computational Biology (QCB) section, a group of 10 core faculty members with a history of over 35 years of computational biology research and educational programs, including a Ph.D. program in Computational Biology and Bioinformatics and undergraduate major in Quantitative Biology. Members of the QCB section work closely with faculty across the Department of Biological Sciences, and in the Viterbi School of Engineering and Keck School of Medicine. More information on the QCB section can be found at <https://dornsife.usc.edu/qcb/>. The Department of Biological Sciences is located on the University Park Campus in Los Angeles, California.

The anticipated start date is August 16, 2019, and applicants must have received a Ph.D. (or equivalent) degree by time of appointment. Review of applications will begin December 1st, 2018, and continue until the position is filled. In order to be considered for this position, all candidates must apply via the “Apply” link at the top or bottom of this page. Please submit, in a single PDF file, a curriculum vita, a cover letter, a statement of research accomplishments and future research plans, a teaching statement, and the contact information of at least three references that will provide letters of recommendations. Please direct inquiries to: [oginskis@usc.edu](mailto:oginskis@usc.edu)

USC 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, protected veteran status, disability, or any other characteristic protected by law or USC policy. USC will consider for employment all qualified applicants with criminal histories in a manner consistent with the requirements of the Los Angeles Fair Chance Initiative for Hiring ordinance.

Please submit your applications at: <https://usccareers.usc.edu/job/los-angeles/assistant-or-associate-professor-of-biological-sciences/1209/9494958>  
 Dr. Carly D. Kenkel Department of Biological Sciences University of Southern California 3616 Trousdale Parkway, AHF 231 Los Angeles, CA 90089-0371 Office: +1 (213) 821-1705 Email: [ckenkel@usc.edu](mailto:ckenkel@usc.edu) Twitter: @DrCarlsHorn <http://dornsife.usc.edu/labs/carlslab>  
 Carly Danielle Kenkel <[ckenkel@usc.edu](mailto:ckenkel@usc.edu)>

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## UTEP Biologist Infectious Diseases

### ASSISTANT PROFESSOR - INFECTIOUS DISEASE BIOLOGIST

The University of Texas at El Paso

College of Science

Department of Biological Sciences

The Department of Biological Sciences at the University of Texas at El Paso (UTEP) invites applications for a tenure-track assistant professor in the area of biology of infectious diseases. In particular, we seek to hire a biologist with expertise in ecology of disease, epidemiology, microbial pathogenesis or host-pathogen interactions. Prospective candidates completing research in various aspects of infectious diseases prevalent in the U.S.-Mexico border communities are especially encouraged to apply.

The anticipated starting date is fall 2019. The successful candidate is expected to establish an extramurally funded research program and to teach and mentor undergraduate, masters', and doctoral students. Research infrastructure in the Department of Biological Sciences includes state-of-the-art molecular, genomic, proteomic, metabolomic, imaging, bioinformatic and statistical core facilities as well as an insectarium, Biosafety Level 2 (BSL-2) and BSL-3 laboratories, and Animal Biosafety Level (ABSL) -2 and ABSL-3 animal facilities. Candidates' research should have strong potential for collaboration with existing Biology faculty as well as faculty from other UTEP colleges and schools (e.g., Chemistry, Health Sciences, Nursing, and/or Pharmacy), and be

able to attract extramural funding. Ideally, the candidates' research would have implications for translation into the clinical and/or the community setting.

**ABOUT UTEP:** Located in one of the largest binational communities in the world, The University of Texas at El Paso is unique among research institutions. UTEP enrolls more than 25,000 students, most of whom are Hispanic. The Brookings Institution in 2017 ranked UTEP as the No. 1 leader in equal access to higher education, based on a combination of research productivity and student social mobility. The University has annual research expenditures of \$95 million, maintains an operating budget of \$500 million and employs approximately 4,000 people. With 172 bachelor's, master's and doctoral degree programs available in eight colleges and schools, UTEP is the first national research university serving a 21st century student demographic.

**REQUIRED QUALIFICATIONS:** Applicants must have a Ph.D. or equivalent degree, postdoctoral research experience, and a strong record of research accomplishments.

**APPLICATION PROCEDURES:** Review of applications will begin Nov. 1, 2018 and will continue until the position is filled. Candidates must submit a letter of interest, curriculum vitae, statement of research interest, a brief description of teaching and service philosophy, and complete contact information for at least three references. For questions about the position, you may contact Douglas M. Watts, Ph.D., Search Committee Chair at [dwatts2@utep.edu](mailto:dwatts2@utep.edu).

To apply, please visit [www.utep.edu/employment](http://www.utep.edu/employment) "mlmoody@utep.edu" <[mlmoody@utep.edu](mailto:mlmoody@utep.edu)>

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## UTexas Tyler BioinformaticsGenomics

The Department of Biology at The University of Texas in Tyler is seeking a 9-month, tenure-track position in genomics/bioinformatics. The candidate should strengthen one of the two major research areas of the Department - ecology/evolutionary biology or biomedical sciences/molecular biology. They will be required to establish a strong, extramurally funded research program in his/her area of expertise. S/he is also expected to have a strong commitment to undergraduate and graduate education and mentoring. Participation in departmental, college, and university committees and outreach programs is expected. Preference will be given to candidates with a demonstrated record of collabora-

tive research.

Qualifications:

Ph.D. in a relevant field with postdoctoral experience in genomics/bioinformatics, Demonstrated research creativity, productivity, and grantsmanship, Ability to develop a strong, extramurally-funded research program, Demonstrated record of collaborative research, Evidence of effective teaching and other communication skills, and Teaching experience at undergraduate or graduate levels is highly desirable.

Available resources:

The Department of Biology offers a stimulating intellectual environment and has an excellent reputation in research and teaching. The Department consists of twelve tenured and tenure-track faculty members and three lecturers. Research in the Department is in diverse sub-disciplines, including genomics, population genetics, evolution, ecology, neurobiology, microbiology, molecular biology, and physiology. Research seminars by invited speakers are held weekly. A new expansion with state-of-the-art research and teaching labs has just been completed along with renovation of all existing teaching labs. Three large and sophisticated walk-in environmental chambers are available for research and a computer lab connects UT Tyler to the Texas Advanced Computer Center via a 10 Gb internet connection. For additional information, please visit [www.uttyler.edu/-biology](http://www.uttyler.edu/-biology). Applications:

Please include (as a single PDF file) a) cover letter; b) detailed curriculum vitae; c) statement of research interests and professional goals, d) statement of teaching interests and philosophy; e) reprints of 3 relevant publications. Additionally, please arrange to have 3 reference letters sent to: Dr. Josh Banta, Chair, Genomics/Bioinformatics Search Committee, Department of Biology, The University of Texas at Tyler, 3900 University Blvd. Tyler, TX 75799. E-mail [jbanta@uttyler.edu](mailto:jbanta@uttyler.edu)

Review of applications will begin immediately and continue until a suitable candidate is found. Start date is negotiable. The position is subject to availability of funding.

Josh Banta, Ph.D Associate Professor, Department of Biology Director, Center for Environment, Biodiversity and Conservation The University of Texas at Tyler Tyler, TX 75799 Tel: (903) 565-5655 <http://plantevolutionaryecology.org> Joshua Banta <[jbanta@uttyler.edu](mailto:jbanta@uttyler.edu)>

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## VirginiaCommonwealthU 4 Bioinformatics

Virginia Commonwealth University Center for Biological Data Science Faculty Positions in Bioinformatics

The Center for Biological Data Science (CBDS) at Virginia Commonwealth University invites applications for two full time tenure-track and one full-time renewable non-tenure track faculty positions in Biological Informatics/Data Science with an anticipated start date of August 2019. These are the first of multiple anticipated new faculty positions in CBDS to build an academic community centered on quantitative and computational discovery science and to promote collaborative scholarship in basic and applied life sciences across VCU. As part of VCU Life Sciences ([lifesciences.vcu.edu](http://lifesciences.vcu.edu)), the Center is committed to interdisciplinary research and training that connects researchers across the entire University. Additional resources and facilities within VCU Life Sciences include the Center for Environmental Studies, Center for Life Sciences Education, the Rice Rivers Center, and the Center for High Performance Computing.

The research focus of the CBDS is the use and development of interdisciplinary informatics and data science approaches for the study of life sciences across all scales, from molecular and cellular to populations, communities, or ecosystems. We anticipate growing a diverse set of faculty with backgrounds and interests spanning areas of medicine, computer science, mathematics, and statistics. The Center administers bachelor's and master's degrees in Bioinformatics and participates in the interdisciplinary Integrative Life Sciences doctoral program, also housed within VCU Life Sciences.

All three positions are intended at the rank of Assistant Professor, with higher ranks considered for exceptional applicants. Interested applicants must apply online at the links below with cover letter, CV, and contact information for three references. Candidates may apply for both the tenure-track and non-tenure track positions.

General information about the Center for Biological Data Science may be found at <https://cbds.vcu.edu>. Tenure-Track Assistant Professor (two positions):

Successful candidates for the tenure-track positions (CBDS will serve as the tenure home) will be expected to develop an innovative, extramurally-funded, indepen-

dent research program; fulfill teaching requirements at both the undergraduate and graduate levels, including mentoring undergraduate and graduate students; and have a commitment to outreach and service both within and beyond the University community. All interested candidates must be able to work across multiple disciplines regardless of whether their research is fundamental or has strong translational and applied implications.

**Required Qualifications:** A doctoral degree (Ph.D.) in the biological sciences, data sciences, bioinformatics, or a related field; demonstrated experience in teaching/mentoring students; a significant commitment to biological data science or informatics research and development; a demonstrated record of significant publications; and potential to develop a strong collaborative research program in data science or bioinformatics. The successful candidate must also have demonstrated experience working in and fostering a diverse faculty, staff, and student environment or commitment to do so as a faculty member at VCU.

**Preferred Qualifications:** Postdoctoral experience in biological sciences, data sciences, bioinformatics, or a related field at the time of appointment. Desired research foci include, but are not limited to the development and use of: novel Bayesian approaches for the analysis of biological data, computational optimization and approaches for dealing with Big Data, large-scale phylogenetic inference, and metagenomics. Demonstrated ability working with a diverse student population.

Tenure-track faculty applications: <https://www.vcujobs.com/postings/83582> For additional information or questions, please contact the chair of the search committee Dr. Brian Verrelli at [bverrelli@vcu.edu](mailto:bverrelli@vcu.edu).

**Non-Tenure Track Assistant Professor (one position):**

Successful candidates for the non-tenure track position will be expected to develop and teach innovative courses in biological informatics and data science; mentor undergraduate and graduate students; and have a commitment to outreach and service both within and beyond the University community.

**Required Qualifications:** A doctoral degree (Ph.D.) in the biological sciences, data sciences, bioinformatics, or a related field; demonstrated experience in teaching and mentoring students. The successful candidate must also have demonstrated experience working in and fostering a diverse faculty, staff, and student environment or commitment to do so as a faculty member at VCU.

**Preferred Qualifications:** Demonstrated experience in development and assessment of teaching materials at the undergraduate and graduate levels.

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## Yale Marine Conservation

\*Position available: Open Rank, Tenure-Track/Tenured Position in Environmental Science\*

Yale-NUS College, Singapore, invites applications for an open-rank, tenured/tenure-track positions (Assistant, Associate, Full Professor) in Environmental Studies. Successful candidate will work within a multi-disciplinary teaching team to deliver an environmental-studies curriculum tailored to a top liberal arts college. Teaching responsibilities (<https://envs.yale-nus.edu.sg/>) include contributing to the Introduction to Environmental Studies module, offering specialized courses in the candidates field, supervision of senior capstone projects, and teaching into the Yale-NUS Common Curriculum ( <http://www.yale-nus.edu.sg/curriculum-commoncurriculum>). Candidates must demonstrate a clear passion for undergraduate teaching.

We welcome applicants in any environmental science discipline, with preference for candidates with tropical-system experience in marine conservation, marine ecology, or marine pollution and ecotoxicology. Post-doctoral experience is required for junior candidates.

Research achievement should include publications in leading peer-reviewed journals commensurate with career stage and scholarly field, as well as demonstrated ability or potential to secure research funding. For both positions, successful applicants will be expected to develop an active research programme that invites student engagement, while competing successfully for external funding.

Regionally-relevant experience or research focus is a plus. We invite applications from candidates whose research and teaching will contribute to the integration of diverse aspects of environmental studies. Applicants should clearly describe their future trajectory of research and publication. Yale-NUS is a highly selective liberal arts and science college in Singapore, established in 2011 by Yale University and the National University of Singapore. Our small size (1,000 undergraduate students and ~ 100 FTE faculty) allows for close student-faculty

interaction, while our association with the National University of Singapore, the countrys flagship research institution, provides access to rich library and other research resources.

Applications should include the following: (1) a cover letter explaining why a position in environmental studies at Yale-NUS College is of interest; (2) a full \*curriculum vitae\*, including a complete list of publications and relevant teaching experience; (3) a statement on research activity and trajectory; (4) a description of teaching experience and philosophy, including how these might fit with the Colleges mission and curriculum; and (5) teaching evaluations. These should be submitted as a single combined PDF document via <https://academicjobsonline.org/ajo/YaleNUS> .

For Assistant Professor candidates, please have three academic referees submit a written statement of support via <https://academicjobsonline.org/ajo/YaleNUS>. For candidates at the associate or full professor ranks, please provide names and contact information of three academic referees. Review of applications will begin on 31 October and continue until the positions are filled.

Short-listed candidates will be notified soon thereafter; unsuccessful applicants will not be notified. The interview process will require an on-campus visit for each short-listed candidate, to include a research presentation, a sample class, and formal interviews. Questions should be addressed to search committee chair Professor Michael Maniates ( [michael.maniates@yale-nus.edu.sg](mailto:michael.maniates@yale-nus.edu.sg))

The successful candidates will be expected to commence duties in time for the start of the 2019-2020 academic year. Salary, benefits, and leave policies are competitive with top liberal arts colleges worldwide. Yale-NUS College is committed to supporting faculty research through start-up grants, travel allowances, study leave, research support and institutional assistance with proposal preparation and administration of external grant funding.

Yale-NUS College is an equal opportunity employer dedicated to building a diverse community of faculty, staff and students who are committed to excellence and respectful of gender, sexuality, disability, age, socioeconomic status, nationality, ethnicity, race, religion, and culture.

Candidates should understand that by sharing information with Yale-NUS, they authorise the College to use their personal data for the purposes of this application. The College will not use their data for any purposes beyond those relevant to the application process, and that their data remains secure and confidential.

For more information, and to view the official job posting, please visit our website at

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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>

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## Other

Avian promiscuity .....	110	Madagascar Sample Exportation .....	113
Berlin 3-6mth Fellowship .....	110	Madagascar VolunteerLemur FieldAssist .....	113
ESEB HewittMobilityAward DeadlineJan14 .....	111	NewPhytologist TansleyMedal .....	114
ESEB JohnMaynardSmithPrize2019 Call .....	111	Paris AppleDomestication Internship .....	115
learnPopGen Rpackage .....	112	Phyloseminar JeremyBrown October24 .....	116
LightPollution Survey .....	113	Survey FieldworkMortality .....	116

Sycamore maple RequestForSamples .....	116	Oct18 .....	117
UIowa NSF REU EvolutionarySciences .....	117	UZurich VolFieldAssist BirdsLapland .....	118
ULausanne SIBVirtualSeminar RobertWaterhouse			

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## Avian promiscuity

Do you work with birds? Do you have unpublished data on promiscuity? Please get in touch with us by e-mailing irene.dilecce@cent.uw.edu.pl. We are conducting a meta-analysis on variation of promiscuity in birds and would very much appreciate your contribution.

Sincerely,

Irene Di Lecce, Joanna Sudyka, and Marta Szulkin Wild Urban Evolution & Ecology Lab University of Warsaw

– Irene Di Lecce, PhD student Wild Urban Evolution and Ecology Lab Centre of New Technologies, University of Warsaw Banacha 2C, 02-097 Warsaw, Poland Mobile (Poland):( +48) 796113215

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## Berlin 3-6mnth Fellowship

GAIN TIME TO THINK! 2019/20 COLLEGE FOR LIFE SCIENCES FELLOWSHIPS DEADLINE: DECEMBER 2, 2018 CALL FOR APPLICATIONS APPLY ONLINE HERE: [www.wiko-berlin.de/cfls](http://www.wiko-berlin.de/cfls)

The College for Life Sciences is a junior program of the Wissenschaftskolleg zu Berlin (Institute for Advanced Study). It offers excellent early career researchers in the life sciences and medicine an opportunity to take a break from the lab and clinic. Fellows will gain time to work and develop their own projects and immerse themselves in the intellectually and culturally diverse environment of the Wissenschaftskolleg.

Each year the Wissenschaftskolleg welcomes around 40 internationally recognized senior as well as promising junior scholars in all fields of knowledge, including the humanities, the social sciences and the arts. Fellows of the College for Life Sciences are invited to become part of this “learning community”. Our goal is to promote a kind of science that transcends disciplinary boundaries and goes beyond established issues and approaches. As we do not provide lab space, it is not “just another

fellowship”, but the opportunity to step back from your routines and reflect your institutional and intellectual “settings”.

Through the College for Life Sciences we promote scientists at the beginning of their career, i.e., postdocs, junior group leaders, lecturers and assistant, associate and junior professors.

The fellowships are intended for residencies of 3-6 months during the academic year 2019/20, i.e., September 2019 June 2020.

**BENEFITS OF THE FELLOWSHIP** - Three to six months’ residency at the Wissenschaftskolleg in Berlin - A full stipend based on your previous salary - Studio accommodation on campus - Freedom to pursue a project of your choice - Insight into new areas of knowledge and research cultures - Integration into a unique international community of Fellows - Access to Berlin’s excellent scholarly and scientific community - Access to the Wissenschaftskolleg’s outstanding library and IT services

For more details please visit: [www.wiko-berlin.de/cfls](http://www.wiko-berlin.de/cfls) APPLICATION AND REQUIREMENTS Please apply by December 2, 2018 with a project outline (about 1000 words), a letter stating your motivation for wishing to obtain a fellowship (about 500 words), your complete curriculum vitae, and a list of your publications here: <https://cfls-application.wiko-berlin.de/> You are completely free to choose the project that you will pursue at the Wissenschaftskolleg; we impose no thematic pre-settings whatsoever.

You must have obtained your doctorate by the start of your fellowship, and we also require that you have at least one lead-author publication in a peer-reviewed journal. There are no restrictions regarding your discipline of origin in the life sciences, your nationality, or your age etc. Applications from scientists working at institutions in Berlin cannot be taken into consideration. If you have been a principal investigator for longer than five years, though, you are advised to apply for a regular fellowship at the Wissenschaftskolleg. We would be grateful if you could post this announcement at your institution and circulate it among colleagues and scholars whom you think would be qualified and interested in applying for this program.

Dr. Ulrike Pannasch Wissenschaftliche Koordinatorin Academic Coordinator College for Life Sciences

ulrike.pannasch@wiko-berlin.de

WISSENSCHAFTSKOLLEG ZU BERLIN INSTITUTE  
FOR ADVANCED STUDY Wallotstraße 19 14193  
Berlin Tel.: +49 30 89 00 1 - 255 Fax: +49 30 89  
00 1 - 100 [www.wiko-berlin.de/cffs](http://www.wiko-berlin.de/cffs)

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### ESEB Hewitt Mobility Award Deadline Jan 14

**\*\*Godfrey Hewitt Mobility Award 2018 'V Call for Applications\*\***

Godfrey Hewitt (1940-2013) was President of the European Society for Evolutionary Biology (ESEB) from 1999-2001. He was exceptionally influential in evolutionary biology both through his research and through his mentoring of young scientists. He was also a great believer in seeing organisms in their environment first-hand and in exchanges of ideas between labs. Therefore, ESEB has decided to offer, annually, mobility grants for young scientists in his name.

Closing date: Monday 14 January 2019, 12.00 GMT.

**\*Eligibility: \***

The award is open to PhD students or postdoctoral scientists who are, at the closing date for applications, both within 6 years of the start date of their PhD and ESEB members. In addition, applicants will be considered who are more than 6 years from the start of their PhD if they have had career breaks, worked part-time, or for other reasons have not worked continuously. The maximum single award will be 2000 Euros. It must be used to support fieldwork or a period of research at a lab that you have not previously visited. There is no restriction on the country of residence or nationality of the applicant. A report will be required by 30 April 2020, by which time the funds must have been used.

**\*Application procedure: \***

Your application should be sent as a single PDF file to Ute Moniatte at the ESEB office, [office@eseb.org](mailto:office@eseb.org). It should include your name, current status and institution, your PhD start date, your ESEB membership number, a description of the work to be carried out (maximum 500 words), an outline budget with brief justification (maximum 100 words) and a signed statement from your PhD supervisor or postdoctoral adviser (maximum 100 words) explaining why the work cannot be funded from your home institution or your proposed host institution.

Applications will be considered by a committee chaired by Roger Butlin. The aim will be to announce decisions before the end of March 2019. In previous rounds, success rates have been between 20 and 40%.

The committee will consider the following key criteria:

1. The value of the proposed mobility in terms of its expected output and impact on the applicant's career. The committee prefers projects that are: a. Not a core component of the applicant's existing PhD or postdoctoral project, but a new venture. b. Clearly based on the applicant's own initiative c. Likely to be completed and have definable output within the award period d. Have the potential to lead to larger future projects or to enhance the applicant's career in evolutionary biology
2. The need for the GHM award, i.e. the potential for the funding provided by ESEB to make a difference, in relation to resources already available through the home or host institution.

Please endeavour to address these points in your application.

Sincerely, Ute Moniatte ESEB Office Manager

– European Society for Evolutionary Biology Email: [office@eseb.org](mailto:office@eseb.org) Homepage: [www.eseb.org](http://www.eseb.org) ESEB <[office@eseb.org](mailto:office@eseb.org)>

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### ESEB John Maynard Smith Prize 2019 Call

**\*John Maynard Smith Prize 2018: Call for Nominations\***

Every year the European Society for Evolutionary Biology (ESEB) distinguishes an outstanding young evolutionary biologist with a prize named after John Maynard Smith (1920 - 2004), eminent scientist, great mentor, author of many books on evolution, and a former President of ESEB.

**Nomination:**

The prize is open to any field of evolutionary biology. The candidates for the 2019 prize must have begun their PhD study after January 1, 2012. In addition, nominees will be considered who are more than 7 years from the start of their PhD if they have had career breakstaken for family, caring or health reasons; the nature of the reason must be given. The nomination of the candidate may be by a colleague or self-nominated. The nominations should be sent as a single PDF file

to Ute Moniatte at the ESEB office <office@eseb.org>. The nomination should include a brief justification, the candidate's CV and list of publications (indicating three most significant papers), a short description of future research plans, and a letter from the candidate approving the nomination. A letter of reference from another colleague (or two in case of self-nomination) should be sent directly to Ute Moniatte.

Nominations and letters of support should arrive no later than\*—January 15, 2019\*. Please take care to limit the size of attachments (total < 10 MB) in any one email.

The nomination committee, chaired by the ESEB Vice President Anna-Liisa Laine, will evaluate the nominations and inform the winner approximately by the end of February 2019.

The prize winner is expected to attend the ESEB congress in August 2019 in Turku, Finland, where he or she will deliver the 2019 John Maynard Smith Lecture. The Society will cover registration, accommodation, and travel expenses (economy fare). The JMS Prize comes with a monetary prize of 2500 €, the invitation to write a review for the Journal of Evolutionary Biology, and the possibility of a Junior Fellowship of generally 3 months at the Institute of Advanced Study (Wissenschaftskolleg) in Berlin, Germany. For more information on the Institute of Advanced Study see [www.wiko-berlin.de/en/](http://www.wiko-berlin.de/en/). Previous winners of the JMS Prize are listed on the ESEB web site: [www.eseb.org](http://www.eseb.org) Sincerely, Anna-Liisa Laine ESEB Vice-President

Ute Moniatte ESEB Office Manager

– Email: office@eseb.org European Society of Evolutionary Biology - ese.org

office@eseb.org

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## learnPopGen Rpackage

Dear colleagues.

I'm very pleased to announce the official release of a new R package called learnPopGen that has been designed primarily for the purposes of teaching evolutionary biology, population genetics, and evolutionary theory. Functions of the package can be used to conduct simulations and numerical analyses of a wide range of evolutionary phenomena that would typically be covered in advanced undergraduate through graduate-level

curricula in population genetics or evolution. For instance, learnPopGen functions can be used to visualize gene frequency changes through time under multiple deterministic and stochastic processes, to compute and animate the changes in phenotypic trait values or distributions under natural selection, to numerically analyze and graph the outcome of simple game theory models, and to plot coalescence within a population experiencing genetic drift, along with a number of other things. As much as possible, I have attempted to design functions of the package to be maximally didactic, for instance by using animated visualizations. For instructor use within lecture materials, it is also straightforward to export plots and animations from R in the form of flat or animated graphics, or as videos.

Instructors interested in using functions of learnPopGen for teaching have two options. For maximum flexibility, students working with the package can be guided to run functions directly in R. However, under many circumstances (for instance, if learning to run the package in R would be a distraction in realizing the pedagogical objectives of the segment) instructors may instead choose to guide students to one of various web interfaces that I have built for a number of the functions of the package using the shiny web application framework. These web interfaces are already available for public use online.

learnPopGen can be installed locally from CRAN (<https://CRAN.R-project.org/package=learnPopGen>) or from its webpage (<https://github.com/liamrevell/learnPopGen>) and run from any computer than has R.

All currently built web interfaces are available on the learnPopGen web interfaces page: <http://www.phytools.org/PopGen/>. I encourage package & learnPopGen web interface users to register their use of the package and to provide positive feedback & constructive criticism on the learnPopGen feedback page: <http://www.phytools.org/PopGen/feedback.html>. Constructive criticism will help me improve the learnPopGen package & these apps. Perhaps more importantly, positive feedback will help me to justify their continued development & maintenance.

Thanks!

– Liam J. Revell Associate Professor, University of Massachusetts Boston Profesor Asistente, Universidad Catolica de la Sma Concepcion web: <http://faculty.umb.edu/liam.revell/>, <http://www.phytools.org> “Liam.Revell@umb.edu” <Liam.Revell@umb.edu>



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## LightPollution Survey

Anthropogenic night light and noise pollution are globally pervasive forms of environmental pollution. They are increasingly changing ecosystems with important implications for biodiversity. Please help us understand how these sensory stimuli affect wildlife by participating in this survey.

This survey is a crucial part of a NASA-funded project led by Boise State University, and your input will help us inform conservation decision-making by understanding how select biological traits affect vertebrate species' vulnerability to anthropogenic night light and noise. All responses are anonymous.

Potential participants include those with backgrounds in animal behavior, animal physiology, wildlife ecology, or sensory ecology or those with ~3 or more years of study/experience with a particular vertebrate species/genus/taxon. As examples, a PhD candidate studying sea turtle nesting success, a biologist working in Everglades National Park for ten years, or an assistant professor of wildlife ecology would all potentially be suitable for this survey. We are looking for a diverse range of participants from academia, non-governmental agencies, nonprofits, and etc. studying or working with vertebrates from across the globe to complete this survey.

We estimate the survey will take between 10-15 minutes to complete. To participate, please follow this link: [https://boisestate.az1.qualtrics.com/jfe/form/-SV\\_eP6mt7bHVf4aE17](https://boisestate.az1.qualtrics.com/jfe/form/-SV_eP6mt7bHVf4aE17) Thank you for helping us understand how anthropogenic night light and noise affect wildlife.

P.S. For more information on this project, please see <https://cid.boisestate.edu/hes/anln/> Kate Markham <katemarkham@u.boisestate.edu>

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## Madagascar Sample Exportation

Hi all,

We would greatly appreciate if someone had suggestions for exportation of lemur samples (fecal, blood, tissue,

and serum) from Madagascar to the US. Fecal samples stored in RNAlater, blood samples in a room temperature blood preservative solution (0.1M Tris base, 0.1 M Sodium EDTA, and 2% SDS), and tissue samples in a room temperature tissue preservative solution (250 mM Sodium EDTA pH 7.5, 20% DMSO, 0.2% glutaraldehyde, and saturated sodium chloride).

Previously our staff has been able to hand carry samples, but due to CDC permit restrictions, it sounds like we must send them by air. DHL and Fedex have said they cannot help, so we are trying to use a US based logistics company to help but they have not been able to get us a quote in over a month due to limitations from Malagasy logistics agents and from the airlines. We have all the necessary permits on both sides.

If someone has been able to air export samples from Madagascar previously, we would love any input or suggestions!

Many thanks!

Amy Berger

Department of Conservation Genetics

Omaha's Henry Doorly Zoo and Aquarium

Omaha, NE, USA

Genetics Department <genetics@omahazoo.com>

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## Madagascar VolunteerLemur FieldAssist

Seeking volunteer research assistants for 3 month cohort in Kianjavato, Madagascar

Affiliated with the Omaha's Henry Doorly Zoo and Aquarium's Conservation Genetics Department

About us: The Madagascar Biodiversity Partnership is a Malagasy NGO founded and piloted by Dr. Edward Louis Jr., Director of the Conservation Genetics Department at OHDZA in Omaha, Nebraska. Together they work to protect and restore Madagascar's remaining forests and diverse wildlife.

Project Overview: During a 12-week tenure, volunteer cohorts will spend half their time monitoring lemurs and half their time participating in the community-based reforestation effort.

Lemur Monitoring (5 weeks): Volunteers will follow social groups of either the greater bamboo lemur (Pro-

lemur simus) or the black-and-white ruffed lemur (*Varecia variegata*) within the mountainous terrain of the Kianjavato-Vatovavy landscape. The longterm goal of this project is to offer protection for these two Critically Endangered species while gathering information on habitat usage, population dynamics, and territorial range.

**Reforestation Project (5 weeks):** This grassroots reforestation effort reconnects and expands natural habitats over the mountainous terrain around Kianjavato while sustainably benefiting the 14,000 area residents. Through this project we have planted over 1.8 million trees in Madagascar. The overall goal of this project is to restore habitats for wildlife and alternative resources for the local community.

**Qualifications/Experience:** We want volunteers who are going to be 100% dedicated to the projects and go above and beyond to contribute to the NGO. We prefer volunteers with at least a BA or BS in the biological or environmental sciences, and tropical restoration or forest management experience is a plus. Some independent research experience will be an advantage, as will work or travel experience in tropical countries. A willingness to work in isolated conditions, the ability to solve problems independently, and dedication to a positive and respectful working environment is vital.

**2019 Volunteer Cohort Schedule:**

\* January Cohort (January 15 'V 17 arrival in Madagascar; April 9 'V 11 departure from Madagascar) \* March Cohort (March 19 'V 21 arrival in Madagascar; June 11 'V 13 departure from Madagascar) \* May Cohort (May 21 'V 23 arrival in Madagascar; August 13 'V 15 departure from Madagascar) \* July Cohort (July 23 'V July 25 arrival in Madagascar; October 15 'V 17 departure from Madagascar) \* September Cohort (Sept 24-26 arrival in Madagascar; December 17 'V 19 departure from Madagascar)

**2019 costs for participating in the MBP Volunteer program:**

\* \$250 USD non-refundable deposit (to secure your placement with the program) \* \$750 USD accommodation fees (includes airport assistance, travel costs to/from field station, tent site rental, and food) \* 55USD/50Euro 90 day tourist Visa (payable at the airport upon your arrival)

**How to Apply:** Applicants should send a letter of interest, curriculum vitae, and contact information for two professional references to Dr. Ed Louis (genetics (at) omahazoo (dot) com).

Genetics Department <genetics@omahazoo.com>

## NewPhytologist TansleyMedal

Calling all early career scientists! Win £2000 and publish in New Phytologist!

The deadline for applying for this year's New Phytologist Tansley Medal is approaching - apply by 1 November!

Full details and online application form here: <https://www.newphytologist.org/grants/tansleymedal> The New Phytologist Tansley Medal is awarded annually in recognition of an outstanding contribution to plant science.

This is a global competition open to all plant scientists in the early stages of their career. This includes student and post-doctoral researchers with up to five years' experience since gaining their PhD. Career breaks do not count towards this five year period.

Selection is a two-stage process based on a single-author Tansley insight review paper, intended for publication.

All competition papers that are accepted after peer review will be published in New Phytologist and the Tansley Medal winner selected by judges from these final papers.

Find out more about previous winners, and apply now at <https://www.newphytologist.org/grants/tansleymedal> With apologies for cross-posting.

Best wishes, Mike

Dr Mike Whitfield Development Coordinator, New Phytologist Trust

New Phytologist Trust, Bailrigg House, Lancaster University, Lancaster, LA1 4YE, UK Tel: + 44 1524 592839; Fax: + 44 1524 594696 [newphytologist.org](http://www.newphytologist.org) < <http://www.newphytologist.org/> > Twitter: @NewPhyt < <https://twitter.com/newphyt> > Facebook: [fb.com/NewPhytologist](https://www.facebook.com/NewPhytologist) < <https://www.facebook.com/NewPhytologist> >

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## Paris Apple Domestication Internship

Title: Reconstructing apple tree domestication using coalescent-based approaches combined with Approximate Bayesian computation

### \*Summary\*

The role of gene flow during adaptation still remains little understood. Domestication is a relevant model for investigating such question because of the weak reproductive barriers that imply recurrent crop-wild gene flow. Our recent results showed an initial domestication of the cultivated apple from the Central Asian wild apple (*Malus sieversii*) followed by a substantial contribution of the European wild apple (*M. sylvestris*) to the cultivated apple genome (Cornille et al. 2012 Plos Genetics) by recent wild-to-crop introgressions. Yet, the contribution of other wild apple species (Caucasian and Central Asian) present along the Silk Roads has been suggested (Cornille et al. 2014 Trends in Genetics). The student will use a unique collection of 3,000 wild and cultivated apple samples genotyped for 26 microsatellite markers to quantify the contribution of additional wild species present along the Silk Routes and the extent of wild-to-crop gene flow in the apple system. This unique collection of samples including additional wild species and local cultivars along the Silk Routes compared to our previous work (Cornille et al. 2012 PloS Genetics), that will make it possible to reconstruct the full domestication history of the apple and will bring new insights into domestication of perennials (Cornille et al. 2014 Trends in Genetics).

The Master 2 student will have the opportunity to pursue a PhD project starting in fall 2019 on the adaptive genomics of apple domestication, using whole genomes. This ambitious project will yield unprecedented insights into the genomic process of adaptation, introducing to the international research community the apple tree as a unique model, with a recent history of gene flow and selection triggered by humans, with fundamental and applied consequences of the findings.

\*Duration\* : 6 months, january/feb 2019 ' june/july

2019 , starting dates are flexible, contact Amandine CORNILLE for further discussions. Monthly gratification: 500 euros/month.

Methodology: population genetic analyses (genetic diversity, population structure and demographic inferences using approximate Bayesian Computation).

Profile preferred for the candidate: Ideally, the candidate will have skills in genetics/genomics and evolution and at least will show strong interest in these fields. He/she will not necessarily be familiar with apple models. The Master project will be proposed to the Doctoral School "Science du Végétal" (Paris-Sud Doctoral School) for a PhD project on the genomic basis of apple adaptation during domestication in June 2019.

\*Supervision\*:

Amandine CORNILLE - Chargée de Recherche CNRS CR2

Génétique Quantitative et Evolution - Le Moulon Ferme du Moulon

91190, Gif-sur-Yvette, France

mail : [amandine.cornille@gmail.com](mailto:amandine.cornille@gmail.com)

Twitter: @CornilleAmand

Google Scholar profile : <https://scholar.google.com/citations?user=EqIE2h8AAAAAJ&hl=fr> Personal page : <http://moulon.inra.fr/index.php/fr/equipes/dygap/355> \*References\*

Â Cornille A, Gladieux P, Smulders MJ. et al. (2012) New insight into the history of domesticated apple: secondary contribution of the European wild apple to the genome of cultivated varieties. PLoS Genet, 8, e1002703.

Â Cornille A., Giraud T., Marinus J. M. Smulders, Isabel Roldán-Ruiz, Gladieux P. The domestication and evolutionary ecology of apples (2014) \*Trends in Genetics \*doi:10.1016/j.tig.2013.10.002

Â Csilléry K., Blum M.G.B., Gaggiotti O. E., François O. Approximate Bayesian Computation (ABC) in practice. Trends in Ecology & Evolution. (2010) Volume 25, Issue 7 Pages 410-418,

Â Beaumont MA, Zhang W, Balding DJ (2002) Approximate Bayesian computation in population genetics. Genetics, 162, 2025-2035.

Â Guillemaud T, Beaumont MA, Ciosi M, Cornuet JM, Estoup A (2009) Inferring introduction routes of invasive species using approximate Bayesian computation on microsatellite data. Heredity, 104, 88-99.

Amandine Cornille <[amandine.cornille@gmail.com](mailto:amandine.cornille@gmail.com)>

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## Phyloseminar JeremyBrown October24

Next on <http://phyloseminar.org/> :

The role of model fit in resolving the Tree of Life Jeremy Brown (LSU) Wednesday, October 24, 2018, 9:00 PM PDT

More data alone will not resolve the Tree of Life. That statement encapsulates perhaps the most striking lesson of phylogenomics. While genome sequences provide us with an invaluable rich source of information about evolutionary history, our ability to properly interpret this information is sometimes flawed, which has led to protracted debates about some of the most interesting and enigmatic relationships across the Tree. However, phylogenetic inference now has a robust grounding in statistical inference. This grounding gives us tools to at least recognize the existence, and hopefully resolve the source, of errors when they occur. These tools are important and broadly applied in other areas of statistical inference, but have been slow to be adopted in phylogenetics. In this talk, I will cover some of the strategies that have been proposed for assessing model fit, some of the reasons for the slow adoption, and the challenges that remain. Andy Magee UW Biology  
<afmagee@uw.edu>

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## Survey FieldworkMortality

How can we make fieldwork less dangerous?

We are analyzing Richard Conniff's Memorial of Fallen Naturalists (<https://strangebehaviors.wordpress.com/-2011/01/14/the-wall-of-the-dead/>) to better understand the circumstances and causes of scientist mortality during fieldwork. If you know of someone who is missing from this list, please add their information to our database. Your contribution will help establish new safety standards for fieldwork and memorialize the contributions of those who gave their lives to further our understanding of the natural world.

Please contribute your information at <https://goo.gl/forms/2TEjQCPh2KhLFG13>, where you can read more

about the study.

Also, please forward this call for information widely. If you have any questions, do not hesitate to contact us. This is an IRB-exempt study registered with the University of Michigan Institutional Review Board.

Many thanks in advance, Talia Yuki Moore, University of Michigan: [taliaym@umich.edu](mailto:taliaym@umich.edu) Martin Stervander, University of Oregon: [mste@uoregon.edu](mailto:mste@uoregon.edu)

Martin Stervander, PhD [www.stervander.com](http://www.stervander.com) | Twitter: @nesospiza | Skype: martin.stervander

Postdoctoral Research Associate, Cresko Lab | [cresko-lab.uoregon.edu](mailto:cresko-lab.uoregon.edu)

Institute of Ecology and Evolution (IE2<sup>2</sup>) University of Oregon, Eugene, OR 97403-5289, USA

E-mail: [mste@uoregon.edu](mailto:mste@uoregon.edu) Cell phone: +1 (541) 513 60 24

Martin Stervander <[mste@uoregon.edu](mailto:mste@uoregon.edu)>

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## Sycamore maple RequestForSamples

Hello,

We need samples (leaf or seed) of sycamore maple (*Acer pseudoplatanus*). The sampling protocol is described below.

\*Leaf sampling design of sycamore maple (*Acer pseudoplatanus* L.), at spring\* Leaf samplings are carried out in natural populations of sycamore maple (i.e. in naturally regenerated stands, i.e. a public forest ' no park, no private garden).

For each sample considered as a population ex-nihilo (i.e. forest), 2 fresh leaves (~20 cm<sup>2</sup> leaf blade) are collected on 20 adult trees according to the wood patch area (pair-wise distance between individuals ~30 m) and stored in a paper bag (or in between journal paper sheet). We recommend using separate paper envelopes to store the 2 leaves of a given individual tree. Label each envelope/sample with: - — — —the 2-digits country code (<https://www.worldatlas.com/aatlas/ctycodes.htm>) - — — —the first 3 letters of the sampled forest or the closest town/city near the sampled patch (i.e. the population) - — — —2 digits corresponding to the iterative number of the individual sampled ' if each individual is located by GPS (e.g. FR ' HIR ' 01 = first individual collected in Hirson forest, France). /Optional/: when possible, locate the sampled trees with a GPS, coordinates are

to be sent with the samples. The 20 (optimally) envelope/samples collected in one forest patch or population are pooled in one larger envelope labeled with: - — — —the name of the sampler and/or his/her e-mail (e.g. thomas.kichey@u-picardie.fr) - — — —the sampling state (e.g. France ' FR) - — — —the population id (e.g. Hirson - HIR) - — — —GPS population location (e.g. 49°57'4.54"N; 4°8'9.28"E - could be extracted from GoogleEarth)

\*\*\*Seed sampling design of sycamore maple (*Acer pseudoplatanus* L.), at Fall\* Seed samplings are carried out in natural populations of sycamore maple (i.e. in naturally regenerated stands, i.e. a public forest ' no park, no private garden). For each population, about 100 mature seeds are collected on the ground below an adult tree (or in the branch of the adult tree) located in the middle of the stand and stored (dry) in an envelope or paper bags (one bag per stand). Optional: when possible, locate the sampled tree with a GPS. The samples collected in one tree are labeled with: - — — —the name of the sampler and/or his/her e-mail (e.g. thomas.kichey@u-picardie.fr) - — — —the sampling state (e.g. France ' FR) - — — —the population id (e.g. Hirson - HIR) - — — —GPS population location (e.g. 49°57'4.54"N; 4°8'9.28"E - could be extracted from GoogleEarth)

The samples are sent to:

Annie Guiller — / Thomas Kichey Université de Picardie Jules Verne - UFR Sciences Unité EDYSAN Ecologie et Dynamique des Systèmes Anthropisés (UMR CNRS 7058) 33 rue Saint-Leu 80000 AMIENS FRANCE Thank you for your help.

Annie annie.guiller@u-picardie.fr

—

Annie Guiller <annie.guiller@u-picardie.fr>

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## UIowa NSF REU Evolutionary Sciences

Please share with rising juniors and seniors who may be interested in gaining research experiences in areas related to evolution:

The University of Iowa is offering ten NSF-funded Research Experiences for Undergraduates (REU) opportunities during the 2019 summer. Research projects will span a range of topics, including evolution of behavior, origin of species, cancer evolution, evolution

of sex, and paleontology. REU students will work on one project, but through interactions with their cohort will ultimately receive a broad exposure to evolutionary science. As part of the program, students will: receive training in research best practices, participate in career workshops, create a digital exhibit based on their research for the University of Iowa Natural History Museum, and make formal research presentations based on their work. Housing, a meal allowance, stipend, and a travel allowance will be provided to all participants.

Link to program website and application form: <https://biology.uiowa.edu/reu> If you have questions, feel free to contact Andrew Forbes (andrew-forbes@uiowa.edu) or Maurine Neiman (maurine-neiman@uiowa.edu).

"Forbes, Andrew A" <andrew-forbes@uiowa.edu>

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## ULausanne SIB Virtual Seminar Robert Waterhouse Oct18

Dear all,

We are pleased to announce the next speaker at the SIB Virtual Computational Biology Seminar Series:

Robert Waterhouse, Evolutionary-Functional Genomics Group, University of Lausanne & SIB Wednesday 31 October 2018 at 16:30 - Genopode Auditorium C - UNIL campus "Evolutionary-functional genomics for arthropod characterisation, control & conservation"

The seminar will also be broadcast live for those unable to attend it physically (<https://collab.switch.ch/sib-cbss/>). For more information about these seminars as well as the upcoming speakers list and previous screencasts, please visit the SIB virtual seminar series webpage: <https://www.sib.swiss/scientific-community/training/virtual-seminars-series> Important: If you want to remain informed about our upcoming seminars, please subscribe to the dedicated mailing list: <http://lists.isb-sib.ch/mailman/listinfo/sib-virtual-seminars> Looking forward to seeing you all there.

Best regards, Diana Marek

Diana.Marek@sib.swiss

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## UZurich VolFieldAssist BirdsLapland

Expenses paid field assistant positions to assist in population census and bird ringing of Siberian Jays in Swedish Lapland

For the field season spring 2019 (27.2-29.3.2019) we are looking for two highly motivated, expenses paid field volunteer to join our field project (main responsible Dr. Michael Griesser, University of Zurich, Switzerland). The study site is located near Arvidsjaur, Swedish Lapland.

Our current project investigates the influence of habitat quality on survival of Siberian jays. The work of the field volunteers will be to help with a population census, behavioral observations, catching and color-ringing birds, blood sampling, and data management. This work will give insight into a long-term study system and will be carried out partly in managed forests and partly in scenic pristine boreal habitats.

Observe that we can access the study site only on X-country skis, requiring a basic knowledge of X-country or down-hill skiing. Moreover, field work can be demanding at times, with temperatures falling below -25C at times.

The team will vary in size depending on the weeks, but at least two other people will be present during the whole field season.

Qualifications: (1) Basic skiing experience (X-country or downhill) (2) Preferably bird ringing and mist-netting experience (3) Previous field experience (4) Ability to work in small teams and sociable personality (5) Driving license (6) Fluent in English

We will cover for the accommodation, travel expenses from and to the study site (in total up to 300 Euros), as well as the living expenses.

Applications - including a CV, a letter of motivation (1 page) and the name of two referees - should be send to Michael Griesser michael.griesser@gmail.com, preferably in a single PDF.

Applications received until 9 November 2018 will be given full consideration.

Michael Griesser <michael.griesser@gmail.com>

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## PostDocs

AMNH NewYork Bioinformatics .....	119	EmoryU AnimalMicrobeInteractions .....	126
ArizonaStateU Biodiversity .....	120	FrenchGuiana PlantTranscriptomics .....	126
AuburnU BiologyEducationRes .....	121	HU Berlin SingleCell EvoDevo .....	127
Bangalore ConservationGenomics .....	121	ImperialCollege London AquaticModelling .....	128
CharlesU PlantSpeciationDynamics .....	122	ImperialCollegeLondon HumanPopulationGenetics	128
ChicagoBotanicGarden PhylogenomicsComparativeGenomics .....	122	InstitutPasteur Paris PhylogeneticsMolecularEpidemiology .....	129
ClemsonU EvolutionDentalMicrobiome .....	123	Karlsruhe MelanesianBiogeography .....	129
Cornell EcolEvolutionaryGenomics .....	124	KAUST SaudiaArabia 4 EvolGenomicsRice .....	130
CornellU AppleDiseaseGenetics .....	125	LMU Munich ComputationalPhylogenetics .....	131

London QMUL EvolutionSpiralCleavage .....	131	UEdinburgh GutEcosystemDynamics .....	149
MichiganStateU StatisticalPopGen .....	132	U Exeter Applied Social Evolution .....	150
NatIFishLab WestVirginia FishViralEvolution ....	133	UGeorgia EvolutionaryGenetics .....	150
NatIU Singapore EvolDevoGenomics .....	133	UHongKong EvolutionaryGenomics .....	150
NorthCarolinaStateU GeneDrivePopulationGenetics	134	UMaine GenomicAdaptation .....	151
NortheasternU MarineEvolution .....	135	UManitoba SeaLampreyComparativeTranscriptomics	152
OmahaZoo ConservationGenetics .....	135	UMaryland EvolQuantitativeGenomics .....	153
Oxford SocialEvolution .....	136	UMassachusetts Amherst DarwinFellowship .....	153
OxfordU HIVPhylogenetics .....	137	UMichigan EvolutionGenomicsReptiles .....	153
OxfordU SocialEvolution .....	137	UMinnesota PhyloComparativeMethods .....	154
PennsylvaniaStateU PDF n LabManager AvianEvolu-	138	UMinnesota SpeciationMatingSystems .....	155
tion .....	138	UNebraska Lincoln PopulationBiology .....	156
SabancıU Turkey PDF PhD BeeEvolution .....	138	UNevada Reno BioinformaticsGenomics .....	156
Smithsonian MarineEvolution .....	139	UNewHampshire GenomicsBioinformatics .....	157
Southampton UK PlasticityGenomics .....	140	Univ Vermont MolecularEvolution .....	158
SyracuseU EvolGenomicsReproduction .....	140	UOulu InsectMolecularSystematics .....	158
TexasAMU 2 SpeciationBehaviorGenomics .....	141	UOxford VirusEvolution .....	159
TexasAMU CorpusChristi PlantDiversity .....	142	UPennsylvania CulturalEvolution .....	159
Texas AMU PlantEvolution .....	143	UPittsburgh EvolutionAntibioticResistance .....	160
TrinityC Dublin 2 MolecularEvolutionYeastGenetics	143	USouthFlorida ComparativeImmunology .....	160
143		USouthFlorida-Tampa HumanPopulationGenetics	161
UBritishColumbia EvolutionaryPopulationGenomics	144	UStockholm YeastExperimentalEvolution .....	161
144		UUlm WildlifeGeneticDiversity .....	162
UCalgary EvolutionaryAnthropology .....	145	UVermont EvolutionOfEpigenetics .....	163
UCalifornia Berkeley CelegansMicrobiome .....	146	UZurich EvolutionaryEcol .....	163
UCalifornia Berkeley EvolutionaryGenetics .....	146	VetMedUVienna Austria EvolutionaryAnthro ....	164
UCalifornia LA MicrobiomePopGenetics .....	147	WashingtonU Biodiversity .....	165
UCalifornia Merced ConiferMicrobiome .....	148	WashingtonU PhylogeneticModel .....	165
UCDavis:EvolutionaryInnovations .....	148	XiamenU FishEvolutionaryGenomics .....	166
UCollege London EvolutionOfSpiralCleavage .....	149		

## AMNH NewYork Bioinformatics

### AMNH\_Gerstner\_Bioinformatics\_and\_Computational\_Biology\_Postdoc

The American Museum of Natural History seeks highly qualified applicants for its Gerstner Postdoctoral Scholars program in Bioinformatics and Computational Biology. Successful applicants will pursue independent and collaborative computational research in integrative studies of genomics, spatial bioinformatics or biodiversity informatics, alongside faculty and other researchers interested in phylogenetics, phylogeography, evolutionary, and high-throughput phenomic/phenotypic studies. Gerstner Scholars in Bioinformatics & Computational Biology (GSB&CB) also will contribute to the design, development and implementation of new algorithms and other bioinformatics tools that are customized for Museum research

and address emerging big data issues in phylogenetic and comparative biology analyses. In association with their professional development and contributions to the Museum, a portion of each Scholars' efforts will include teaching and workshops (with the <https://www.amnh.org/our-research/richard-gilder-graduate-school-of-academics-and-research/fellowship-and-grant-opportunities/gerstner-scholars-program/gerstner-scholars-in-bioinformatics-computational-biology> and <https://www.amnh.org/our-research/sackler-institute-for-comparative-genomics>) and assistance to Museum scientists and students with their bioinformatics and computational biology research.

The initial appointment will be for one year, potentially renewable for one to two additional years based on performance, and includes a highly competitive salary and generous benefits.

Requirements: Applicants must have a PhD in Biological Sciences, Bioinformatics, Computational Biology, Computer Science, Molecular Biology, Genomics, or a

related discipline, with experience in the bioinformatics of large biological data sets. Proficiency in Python, Perl, and/or R is required, and familiarity with those and other languages, such as C++/C, or Java, is desirable. Candidates should have documented skills in genome informatics, such as sequence processing, de novo and reference guided assembly, read mapping, gene annotation and discovery, and/or processing phenomic, transcriptomic, or phylogenomic datasets. Candidates should have extensive research experience with a solid publication record, ideally with some experience in phylogenetic methods, and excellent interpersonal, writing and problem-solving skills.

Applicants are encouraged to contact potential research mentors/collaborators in advance to develop a research statement (see <https://www.amnh.org/our-research/richard-gilder-graduate-school/faculty-search><https://www.amnh.org/our-research/richard-gilder-graduate-school/faculty-search> or <https://www.amnh.org/our-research/richard-gilder-graduate-school/faculty-search>). This program encourages applications from scholars with research interests that may have broad implications for such themes as advancing our understanding of the evolution and diversity of species and the “tree of life,” genomics, and/or human and medical research. Further information on the Gerstner Scholars program and prior Scholars are at <https://www.amnh.org/our-research/richard-gilder-graduate-school/academics-and-research/fellowship-and-grant-opportunities/gerstner-scholars-program/gerstner-scholars-in-bioinformatics-computational-biology> and <https://www.amnh.org/our-research/richard-gilder-graduate-school/academics-and-research/fellowship-and-grant-opportunities/gerstner-scholars-program/gerstner-bioinformatics-and-computational-biology-scholar-profiles>.

For more information and how to apply please click the link below:

— / —

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>

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## ArizonaStateU Biodiversity

The Biodiversity Knowledge Integration Center (BioKIC) at Arizona State University (ASU) invites applications for a postdoctoral research scholar position in biodiversity informatics. The position is part of a new Biodiversity Data Science Initiative launched at ASU and led by Beckett Sterner and Nico Franz. The initiative will focus on building an innovative web platform that leverages theoretical advancements and prototype software for taxonomic concept alignment (<https://doi.org/10.1093/sysbio/syw023>), with the goal to establish a scalable taxonomic intelligence service that will carry value for scientific audiences, science publishers, government agencies, and environmental consulting firms. The platform will accelerate the growth of high-quality, reproducible biological data by driving the adoption of taxonomic intelligence metadata in scientific datasets and journals. This postdoctoral research scholar position will focus on developing a web-based taxonomic intelligence platform and innovating better solutions for knowledge representation and reasoning at scale.

The successful candidate must have a Ph.D. in biology, computer science, or related field, and minimally two years for experience in building production-level software. The successful candidate will also have a strong record of achievement in biodiversity informatics, linked data/knowledge engineering and Semantic Web technologies; including, for example, knowledge representation (e.g., RDF) and machine reasoning (e.g., Answer Set Programming), data search, management, knowledge graphs, visualization, and software development, with knowledge of biological systematics being highly beneficial. Technical proficiency in full-stack programming is critical (HTML/CSS, JavaScript, Python, SQL, as well as NoSQL). The ability to select technologies, and rapidly iterate on the implementation of a high-quality, functional and scalable system is preferred. Mentoring of students and co-/authorship of peer-reviewed publications, presentations, and of research proposals, will be strongly encouraged.

We are committed to open science and an inclusive, equitable, and team-oriented work environment that promotes the candidate’s career and personal advancement. The Biodiversity Data Science Initiative is located within the School of Life Sciences and Natural History



Collections at Arizona State University. This setting offers a supportive and stimulating environment, with a diverse collection of faculty with expertise across the life and computational sciences, as well as access to excellent academic and computing resources. The Initiative is further supported by faculty from ASU's School of Computing, Informatics, and Decision Systems Engineering and external experts in data science for systematic biology. In addition, the postdoctoral researcher will be able to take advantage of multiple seminar series and a large community of faculty, postdocs, and students. Arizona State University offers a rich environment for early-career researchers and a wide range of support programs for postdocs.

Exploratory e-mail inquiries are strongly encouraged. Interested applicants should send a one-page research statement, clearly indicating their qualifications and motivation to join the project, Curriculum Vitae, and contact information for three references to nico.franz@asu.edu. The review of applications will begin October 26, 2018; if not filled, applications will be reviewed every week thereafter until the search is closed. The start date is flexible, with a preference for January 1, 2019.

Salary is commensurate with experience, with a range of \$55,000 to 75,000 annually, plus ASU benefits, for exceptionally well-qualified applicants. Reasonable relocation funds are available.

Full position ad: [https://sols.asu.edu/sites/default/files/job\\_12575.pdf](https://sols.asu.edu/sites/default/files/job_12575.pdf) "nico.franz@asu.edu" <nico.franz@asu.edu>

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## AuburnU BiologyEducationRes

Postdoc in Discipline-Based Education Research, Department of Biological Sciences, Ballen Lab

A postdoctoral position is available in the lab of Cissy Ballen at Auburn University to study biology education. Our focus is STEM equity, and we conduct investigations of the causes and consequences of gaps in science literacy, and how educators can design their courses to minimize barriers to success. By developing an integrated experimental and theoretical research program we explore how classroom and social influences shape student learning, personal and professional development, and educational and career trajectories.

Here is our website: <https://balle027.wixsite.com/>

**cjballen** Here are some examples of broad questions we are addressing in the lab: What geographic, cultural, or institutional barriers predict patterns of attrition among historically underserved students in STEM at the undergraduate level? What types of scalable teaching strategies can instructors employ to reduce gaps in performance and participation? How do research experiences impact developing scientists' personal and professional development and career trajectories? How can we use measures of physiological reactivity to study engagement in an undergraduate STEM classroom setting?

Auburn is a fantastic, affordable college town, and DBS is a vibrant and collaborative setting for discipline-based education research. We have great resources here to study education, offering a wide range of opportunities for expanding your skill set.

Postdoc applicants should have a PhD in any area of biology, biology education, statistics, or other related field. To apply, please send me (mjb0100(at)auburn.edu) a cover letter detailing your interest in biology education research, CV, and the names of three references. The position is for 1 year with the option to extend for another year. Although funding from the lab itself is available, I will be particularly interested in applicants interested in seeking external funding. I will continue to accept applications until the position is filled.

– Cissy Ballen Assistant Professor Dept. of Biological Sciences College of Sciences and Mathematics Auburn University

350 S College St

Auburn, AL 36849 \*P \*607 279 2625 | \*E \*mjb0100@auburn.edu

Cissy Ballen <balle027@gmail.com>

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## Bangalore ConservationGenomics

National Centre for Biological Sciences, TIFR, Bangalore, India

Postdoctoral Fellow in Conservation Genomics

Applications are invited for a postdoctoral position in conservation genomics. The postdoc will work as part of our team on the conservation genomics of tigers. This position is funded as part of a Wellcome Trust DBT Indian Alliance grant awarded to Uma Ramakrishnan, to investigate the importance of genetic variation to

individual wellbeing in tigers. Initial research will focus on signatures of selection within the Indian subcontinent, and better understanding mutational load in tiger genomes. The ideal candidate will have bioinformatics skills and experience with whole genome analyses for vertebrates, conceptual understanding of population genetics and genomics, and a keen interest in conservation.

The position will include analyses of existing datasets, interpretation and publication. If interested, there will be opportunity to collaborate on developing reference genomes for Indian vertebrate species. The postdoc will also have the opportunity to develop India-focused training material in conservation genomics and web-based outreach material on tiger genomics. The Ramakrishnan lab also partners with the Program in Conservation Genomics at Stanford University (<https://cehg.stanford.edu/programs/program-conservation-genomics>), and opportunities for collaborations with this team are possible and encouraged.

The Ramakrishnan laboratory is based at the National Centre for Biological Sciences, TIFR in Bangalore ([www.ncbs.res.in](http://www.ncbs.res.in)). NCBS is a small but vibrant research community. The Ramakrishnan laboratory has been investigating molecular ecology and conservation genetics of Indian birds and mammals for the last 15 years.

The position is initially for two years, but extendable to three years. Salary will be according to postdoctoral norms in India. Funding for travel to international meetings (once a year) under the grant is possible. Healthcare is available on campus, as are many other facilities. NCBS will facilitate visa and other logistics for international candidates. We seek to fill this position by January 2019. If you are interested, please send your CV (including possible referees) to Uma Ramakrishnan ([uamakri@ncbs.res.in](mailto:uamakri@ncbs.res.in)) by November 15th, 2018 or earlier.

Uma Ramakrishnan

Associate Professor, Senior Fellow, Wellcome Trust/DBT India Alliance

National Centre for Biological Sciences, TIFR Bangalore, India

Uma Ramakrishnan Associate Professor Senior Fellow, Wellcome Trust/DBT India Alliance National Centre for Biological Sciences, TIFR Bangalore, India

Uma Ramakrishnan <[uramakri@ncbs.res.in](mailto:uramakri@ncbs.res.in)>

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## CharlesU PlantSpeciationDynamics

The Plant Repro Evo lab (<http://plantreproevo.natur.cuni.cz>) is searching for a motivated postdoc researcher to study the speciation dynamics and the evolution of hybridization barriers across the Arabidopsis genus. The project will aim at understanding how pre- and postzygotic barriers and their interplay shape within and between species divergence. In particular, part of the project will elucidate the genetic basis of specific barriers and the evolution of underlying loci will be surveyed across the Arabidopsis genus. Finally, how sexual selection influences the emergence of hybridization barriers will be tested, working in collaboration with a PhD student focused on sexual selection in plants.

The project will use developmental biology, genetics and population genomics approaches. The successful candidate will thus have experience with at least plant reproduction biology, plant evolution, population genetics or bioinformatics, or ideally several of them.

The Plant Repro Evo lab is hosted by the Department of Botany of Charles University (<https://www.natur.cuni.cz/biology/botany>) and is located in the beautiful Botanical Garden of the university, right in the historical centre of the culturally vibrant Prague city (Czech Republic).

The contract is for two years, ideally to start at the beginning of January 2019.

For more information, contact Clément Lafon Placette ([lafonplc@natur.cuni.cz](mailto:lafonplc@natur.cuni.cz)), and if you wish to apply, please send a CV, a cover letter and the contact of two references to the same email address before the 15th of November.

Clément Lafon Placette <[lafonplc@natur.cuni.cz](mailto:lafonplc@natur.cuni.cz)>

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## ChicagoBotanicGarden PhylogenomicsComparativeGenomics

Postdoctoral Research Position in Phylogenomics and Comparative Genomics Wickett Lab, Chicago Botanic

## Garden

We are hiring a postdoctoral researcher for up to three years to lead the bioinformatics and genome sequencing efforts of an NSF-funded, Phylogenetic Systematics grant titled 'Unlocking the evolutionary history of *Schiedea* (carnation family, Caryophyllaceae): rapid radiation of an endemic plant genus in the Hawaiian Islands'. This project integrates field work, genome sequencing, phylogenomics, and population genetics to reconstruct the evolution of breeding system diversity in the Hawaiian Islands endemic genus *Schiedea*. This project is a collaboration between Norman Wickett (Chicago Botanic Garden), Ann Sakai and Steve Weller (UC Irvine), Michael Moore (Oberlin), and Warren Wagner (National Tropical Botanical Garden and Smithsonian National Museum of Natural History). The postdoc will be based at the Chicago Botanic Garden, where the genome sequencing efforts and, along with Oberlin, the phylogenomic analyses will be based.

The postdoc will be responsible for coordinating and conducting the sequencing, assembly, and annotation of three *Schiedea* genomes. The position includes the analysis of genome content and structure association with the diversification of the genus, with an emphasis on the phylogenetic reconstruction of species and breeding system diversity and the history of hybridization. We expect that the postdoc will contribute to the preparation of numerous publications, many of which will be first-authored. Field work in the Hawaiian Islands will occur in each year, and we will encourage the postdoc to participate for several weeks per year. This field work may involve hiking in steep mountains in difficult conditions. Teaching and curriculum development opportunities will be offered through the Graduate Program in Plant Biology and Conservation, a joint program between the Chicago Botanic Garden and Northwestern University. We anticipate that the postdoc will participate in mentoring undergraduate students, possibly as part of an REU site grant to CBG. Because this project is a collaboration between different types of institutions (Museum, Botanic Garden, Small Liberal Arts College, Research University/R1) there are unique opportunities for the postdoc to experience research, mentoring, and teaching in different environments.

Applicants must have (or will soon have) a Ph.D. in ecology and evolutionary biology, biology, botany, or a related field. Experience in bioinformatics is required, preferably in the area of genome assembly and annotation. Ideal candidates will also have a strong background in phylogenetics and phylogenetic comparative methods, preferably using phylogenomics-style datasets (hundreds to thousands of nuclear loci).

To apply, please email a single PDF to [nwickett@chicagobotanic.org](mailto:nwickett@chicagobotanic.org) that includes:

- a cover letter describing your interest and fit for the position - CV - contact information for three references

Review of applications will begin on November 15, 2018, but applications after this date will be considered and will continue to be accepted until the position is filled. The expected start date is ideally in January or February, 2019, as the first field work will begin in March, 2019. However, the start date is negotiable. If you have any questions about the position or would like to learn more about the project, please email Norm Wickett at [nwickett@chicagobotanic.org](mailto:nwickett@chicagobotanic.org).

At the Chicago Botanic Garden Plant Science Research Center, we advocate diversity in the sciences by promoting access and success of historically marginalized communities through the fostering of an equitable and inclusive community climate. We are committed to ensuring a sense of belonging for every individual we encounter, regardless of age, race, gender, ethnicity, religion, sexual orientation, physical ability, intellectual ability, or economic status. We are committed to equal opportunity in all of our programs and encourage applicants from groups traditionally underrepresented in the biological sciences.

Norman Wickett (he/him/his) Associate Conservation Scientist Chicago Botanic Garden Glencoe, IL 60022 [nwickett@chicagobotanic.org](mailto:nwickett@chicagobotanic.org) <http://faculty.wcas.northwestern.edu/wickett/> <http://www.chicagobotanic.org/research/staff/wickett> Norm Wickett <[nwickett@chicagobotanic.org](mailto:nwickett@chicagobotanic.org)>

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## ClemsonU EvolutionDentalMicrobiome

Vincent Richards??? lab in the Department of Biological Sciences at Clemson University is accepting applications for a post-doctoral position.

The postdoc will join a five-year NIH/R01 funded project to investigate the influence that childhood HIV infection has on the dental microbiome and tooth decay (caries). Childhood caries is a serious public health problem affecting the immediate and long-term quality of life of both the child and its family, and recent studies have shown an increased prevalence of caries in HIV-infected children. Making use of a large cohort of HIV+ children in Nigeria, the project will utilize multi-

ple omic approaches to determine the interplay between the dental microbiome, adaptive immunity, and the development of caries. Ultimately, the knowledge gained will translate into improved prevention and intervention strategies that could potentially mitigate an increased risk of caries and hopefully provide an improved quality of life for children suffering with HIV infection.

Beyond publications generated from the HIV project, many additional projects focusing on the oral microbiome and how it pertains to oral health are possible. The postdoc will be free to explore and lead such projects. The postdoc will take a senior position within the laboratory and contribute to the mentoring of graduate and undergraduate research. The candidate should have a strong publication record, a background in microbial community dynamics, experience analyzing next-generation sequence data (in particular amplicon sequencing and metatranscriptomic data), and be well versed in Linux/bash.

The position is available immediately and review of applications will continue until the position is filled. The position is for five years and the salary is \$50,000/year plus benefits. Applicants should contact Vincent Richards directly at [vpricha@clermson.edu](mailto:vpricha@clermson.edu). Please provide a cover letter describing research interests, experience, and career goals, CV, PDFs of representative publications, and contact information for three references.

Clemson University is ranked 24th among national public universities by U.S. News & World Report and is located on Lake Hartwell near the Blue Ridge Mountains in beautiful Upstate South Carolina.

Vincent P. Richards, Ph.D. Assistant Professor Department of Biological Sciences Clemson University Clemson, SC 29634 Email: [vpricha@clermson.edu](mailto:vpricha@clermson.edu) Lab website: <http://www.vprichards-lab.com> Vincent Paul Richards <[vpricha@clermson.edu](mailto:vpricha@clermson.edu)>

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## Cornell EcolEvolutionaryGenomics

\*\*\*\* Postdoc in ecological genomics of balanced polymorphisms \*\*\*\*

The Hare Lab at Cornell University is recruiting a postdoc with diverse skills to lead genomic aspects of a collaborative NSF-funded project to identify and spatially map balanced polymorphisms underlying oyster tolerance to low salinity. We are testing the hypothesis that short-term adaptive responses to environmental

stress can involve distinct genetic architectures across a habitat gradient, even at spatial scales with high gene flow. These predictions are for the eastern oyster, a species in which high standing genetic variation and low linkage disequilibrium facilitate testing for polygenic architectures. A first goal for this study is to identify candidate genes for tolerance to low-salinity using whole-genome resequencing of experimental challenge before/after samples, supported by an available chromosome-level reference genome. Results will inform models of evolutionary response to environmental change as well as artificial selection strategies in breeding for aquaculture traits.

In general, this study is motivated by the expectation that dispersing genotypes in high fecundity species will have phenotype - environment mismatches resulting in strong viability selection. As a result, functional genetic differentiation is generated across small-scale habitat heterogeneities within each cohort. A second goal of this project is to measure candidate gene variation along the estuarine salinity gradient and test for associations with salinity variation. Field sampling of Delaware Bay eastern oysters will target larvae, newly-settled juveniles and adults to measure the extent and spatial/temporal pattern of recurrent within-generation selection. Environmental data will provide estimates of lifetime salinity exposures for oysters from different locations within the estuary, informing two replicate years of genetic-environment spatial correlation testing.

In addition to collection and analysis of genomic data at Cornell, this position will include relocation to the Haskin Shellfish Lab in southern New Jersey during each summer to lead experimental challenge experiments. The ideal candidate will have experimental design experience that informs these experiments. The candidate also will be encouraged to develop a related, independent project according to their interests.

Qualifications: A PhD in ecological genetics, population genetics or related field is required. We are looking for a creative and productive scientist with strong computational and bioinformatic skills, good communication abilities, and a publication record commensurate with career stage. The ideal candidate will have previous experience with experimental design generally, or specifically with challenge and/or evolve and resequence experimental designs. Programming abilities are highly desirable.

Funding is available for at least 2.5 years, with renewal after one year contingent on satisfactory performance. The start date is preferably between March 1 and May 1, 2019. Information about salary and benefits at Cornell can be found here: <https://postdocs.cornell.edu/>

**postdoctoral-associates-benefits** . Interested candidates should send a cover letter describing your relevant experience and interest, a CV, the contact information for three references to Matt Hare (mph75@cornell.edu). Review of applications will begin immediately and continue until the position is filled.

Diversity and inclusion are a part of Cornell University's heritage. Cornell is a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.

Matt Hare Associate Professor Department of Natural Resources 205 Fernow Hall Cornell University Ithaca, NY 14853 <https://blogs.cornell.edu/harelab/> mph75@cornell.edu 607-255-5685

"Matthew P. Hare" <mph75@cornell.edu>

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## CornellU AppleDiseaseGenetics

I am hiring a postdoc to work on genetics of disease resistance in apples. Position is not directly relevant to evolutionary genetics but this research will involve working on world's largest apple collection held by USDA in Geneva, NY. This might be interesting to some candidates accessing EvolDir.

Cornell University ' College of Agriculture and Life Sciences School of Integrative Plant Science ' Section of Plant Pathology and Plant Microbe Biology New York State Agricultural Experiment Station, Geneva, New York Post-Doctoral Associate Position

We are seeking a highly motivated postdoctoral researcher with a strong interest to study genetic mechanisms of disease resistance, and disease management in fruit trees. The candidate will have the opportunity to do excellent and cutting edge research in genomics, phenomics and quantitative genetics and will have access to world's largest apple collection, apple orchards, and state-of-the-art computational and genome sequencing facilities. Please read the "Required Qualifications" carefully to apply for this position.

The main responsibilities of this position are to 1) identify QTLs underlying disease resistance in bi-parental mapping populations and association mapping panels, 2) develop high-throughput phenotyping methods to screen seedlings from breeding program, and 3) develop remote-sensing methods to establish relationship between spectral changes in fruit trees in response to pathogen infection and disease severity. This position

will require the design and execution of experiments in the lab, greenhouse and field as well as publishing peer-reviewed journal articles, developing research proposals, and presenting at international conferences.

Specific Work Responsibilities: The specific focus of this position will be:

**Quantitative Genetics Analysis (40%):** Design of experiments and analysis for quantitative trait loci (QTL) and association mapping of disease resistance including genomics and genotyping, inoculations, and assessment of disease.

**Development and Application of HTPP, and Remote-sensing Methods (40%):** Development and application of HTPP methods to collect and process data of mapping populations to dissect genetic basis of disease resistance, and to screen seedlings from breeding program. Development and application of remote-sensing methods for early disease symptom detection in the orchards to identify and quantify disease severity for timely deployment of appropriate management.

**Research Communication (15%):** Train students, publish peer-reviewed journal articles, present at scientific meetings, seminars, workshops and develop both web-based and traditional tools for outreach and research extension.

**Proposal Development (5%):** Motivated and creative thinker to support development of research proposals for basic and applied phenomics and genetics.

**Required Qualifications:** Must possess a PhD in plant genetics/breeding, plant pathology, molecular biology or a related field. Must have demonstrated experience with the collection and processing of phenotypic and genotypic data, and quantitative genetics and good experience in lab, greenhouse and field. Candidate must have skills in molecular biology, genomics, genetics, and statistics. Candidate must have a record of publications with at least two first-author publications in highly respected peer-reviewed journals and be self-motivated for data analysis and writing research articles.

**Preferred Qualifications:** Experience with remote-sensing, multi-spectral imaging and high-throughput phenotyping to access biotic or abiotic stress tolerance is preferred. Candidate should be able to multi-task and have good time management and attention to detail in order to meet tight deadlines, and work independently to initiate communications and ambitious collaborative research. Creativity and proactiveness are assets, as well as enthusiasm to work and interact in an international scientific environment. Excellent student supervision/mentoring skills are beneficial.

Interested candidates should send letter of motivation, Curriculum Vitae, a statement of contribution to diversity, equity and inclusion, < <https://cals.cornell.edu/about/leadership/ofa/hr/statement-contribution-diversity-equity-and-inclusion/> > and names and contact information for three references to: awais.khan@cornell.edu

Awais Khan, Associate Professor Plant Pathology and Plant-Microbe Biology Cornell University 112 Barton Lab, 630 W North St, Geneva, NY 14456 USA Phone: +1 315 787 2446 Email: awais.khan@cornell.edu <http://blogs.cornell.edu/khanlab/> Awais Khan <awais.khan@cornell.edu>

## EmoryU AnimalMicrobeInteractions

Post-doctoral Research Associate Position The Bean Beetle Microbiome Project, a newly-funded NSF-funded education-research collaboration of Emory University and Morehouse College, seeks a post-doctoral research associate with interest in the ecology and evolution of animal-microbe interactions and the implementation and assessment of course-based undergraduate research experiences (CUREs). The overall goal of this project is to determine the importance of student autonomy in a discovery CURE based on the bean beetle (*Callosobruchus maculatus*) microbiome across diverse institutions. The post-doc will work with the PIs to facilitate faculty professional development workshops that will train faculty from diverse institutions on experimental and analytical techniques associated with studying insect microbiomes. The post-doc also will facilitate the implementation of CUREs on the microbiome of bean beetles at these institutions and will assist with student assessment in these CUREs. The post-doc will have the opportunity to develop their own projects related to insect microbiomes in Dr. Nicole Gerardo's lab at Emory University and related to discipline-based education research in laboratory courses in collaboration with Dr. Chris Beck at Emory University and Dr. Larry Blumer and Dr. Sinead Youngue at Morehouse College. In addition, opportunities to gain teaching experience are available. The post-doc will be employed by Emory University, but will interact with PIs at both institutions.

Emory University is a private, research university just east of the city of Atlanta. Morehouse College is a private, all-male, historically black college located

in southwest Atlanta. The Gerardo lab (<https://scholarblogs.emory.edu/gerardolab/>) studies the evolutionary ecology of interactions between microbes and hosts. Researchers in the Gerardo lab collaborate with other faculty at Emory in the Ecology and Evolution of Species Interactions at Emory (EESI-E) group. Dr. Chris Beck and Dr. Larry Blumer are long-time collaborators in the area of laboratory curriculum development and faculty professional development. They have developed the bean beetle as a common model system for undergraduate biology laboratory education (<http://www.beanbeetles.org>). Emory University has an active science education research community that includes a cross-disciplinary science education research journal club that meets weekly during the academic year. Dr. Sinead Youngue has expertise in qualitative research on education.

Qualifications Candidates should hold a Ph.D or equivalent in the biological sciences or biology education. Prior experience in either microbiome research or inquiry-based laboratory teaching and discipline-based education research is highly desirable. Evidence of excellent academic achievement and commitment to a career in college or university-level teaching is required.

Terms of Appointment The post-doctoral associate will be position at Emory University. The minimum starting salary is \$48,432 with benefits. Funding for travel to conferences related to this project is also available. The initial appointment will be for one year (renewable for a second year). The anticipated start date for the appointment is January 1, 2019 (negotiable).

Applications The review of applications will begin on October 31, 2018 and will continue until a suitable candidate is selected. Applicants should submit (as a single pdf file) a cover letter describing their interest in and experience related to the position, their CV, and the names, phone numbers, and email addresses of three individuals who can serve as references. Applications should be emailed to [postdoc@beanbeetles.org](mailto:postdoc@beanbeetles.org).

Dr. Christopher Beck Department of Biology Emory University Atlanta, GA 30322

[christopher.beck@emory.edu](mailto:christopher.beck@emory.edu)

404-712-9012 FAX 404-727-2880

"cbeck@emory.edu" <cbeck@emory.edu>

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## French Guiana Plant Transcriptomics

Postdoctoral position in plant transcriptomics

Evolution of terpene synthase in the latex of Amazonian trees

Starting: February-March 2019 Duration: 24 months  
Funding: ANR JCJC (Project: Amazyme) Salary: 2,000.00 € plus two flight tickets (Paris-Cayenne and Cayenne-Ithaca) Location: Field work and molecular biology at UMR EcoFoG (Cayenne and Kourou, French Guiana, France) <https://www.ecofog.gf/>. Data analysis will be made partially at Cornell University (Ithaca, NY, USA).

Project description: Latex plants are distributed widely in various habitats and have evolved in a convergent manner several times across the plant kingdom indicating poly-phylogenetic origins. However, apart from a few taxa that have been commercialized for rubber production or used as model systems in plant defense studies, the ecology and evolution of latex plant exudates remains understudied, the role of exudates in lineage diversification is still unknown, and the enzymatic/chemical diversity and biochemical phenotypic plasticity have not been reported on a broad phylogenetic scale.

This project aims to study terpene synthase evolution in Amazonian forests, with a focus on oxidosqualene cyclase and prenyltransferase, in the latex of several tree species from different families within two habitats in French Guiana to better understand the role of these protein families in the adaptation and diversification of latex plants in microhabitats.

The project will benefit from complementary data obtained in latex metabolomics and latex rheological properties.

Candidate profile: The candidate should have a Ph.D. in plant biology and strong skills in transcriptomics and bioinformatics are expected. Experience in tropical biology or biochemistry would be an added value. The candidate must be able to drive a field vehicle in French Guiana to do field work for collecting samples in a tropical environment, be independent, organized and demonstrate excellent communication skills in French and English.

Applicants should send a motivation letter, a

CV and a brief summary of research in English to [christophe.duplais@ecofog.gf](mailto:christophe.duplais@ecofog.gf) and [yanick.estevez@ecofog.gf](mailto:yanick.estevez@ecofog.gf)

Deadline: December 31th, 2018

Christophe Duplais CNRS group leader in chemistry - UMR EcoFoG Phone: +594 594 293 134 Address: UMR EcoFoG at the Pasteur Institute of French Guiana 23 Avenue Pasteur BP 6010 97306 Cayenne Cedex French Guiana, France <http://www.ecofog.gf/-spip.php?article454> [cmoreau@fieldmuseum.org](mailto:cmoreau@fieldmuseum.org)

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## HU Berlin SingleCell EvoDevo

Two post-doctoral researcher positions at Humboldt University in Berlin.

Our group focuses on understanding the regulatory mechanisms underlying embryonic development and how these mechanisms are shaped by evolutionary processes. We're currently looking for two post-doctoral researchers to join an ERC-funded project that uses single-cell sequencing (RNA and ATAC) to understand cell-fate specification and gene regulatory network evolution in the sea urchins. <https://www.garfieldlab.org/open-positions/> The project overall revolves around understanding the function and evolution of a gene regulatory network underlying endomesodermal specification and larval skeletal development in sea urchins. The computational position (<https://tinyurl.com/yc36gbet>) will focus primarily on understanding how substitutions between closely related species influence regulatory interactions, while the wet-lab biologist (<https://tinyurl.com/y74yh8uo>) will focus primarily on understanding how chromatin landscapes change during cell-fate specification and transdifferentiation. There is, however, substantial intellectual overlap between the two projects.

The lab is based at the IRI for Life Sciences, a collaboration between Humboldt University, the Charité Medical Centre, and the Max Delbrück Centre for Molecular Medicine and is located in central Berlin near the Charité main campus and the Museum of Natural History. As members of the IRI, researchers have access to facilities and training opportunities at all three institutions located on a common campus in central Berlin, including computational resources associated with the Berlin Institute of Health.

Applications, including a motivation letter, CV, and contact details for two academic references should be

sent as a single PDF to [info@garfieldlab.org](mailto:info@garfieldlab.org). Computational applicants should also provide example code, either by direct submission or via a link to GitHub or similar code repositories. Applications received before November 30th will be given priority. The start date would be February 2019 (exact starting date is fairly flexible).

For more information, and to view the official job posting, please visit our website at [www.garfieldlab.org](http://www.garfieldlab.org). DG

David Garfield, PhD

Research Group Leader IRI Life Sciences Humboldt-Universität zu Berlin Philippstr. 13 (Haus 18, Rm. 108) 10115 Berlin, Germany

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David Garfield <[david.garfield@hu-berlin.de](mailto:david.garfield@hu-berlin.de)>

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## ImperialCollege London AquaticModelling

Dear Colleagues,

We are looking to fill a 3-year postdoc position in ecosystem theory, focusing on the effects of chemical perturbations on ecosystem functioning. We are particularly looking for individuals in knowledge of dynamical systems / control theory and a strong Maths/Physics/Computing/Engineering background.

This position is a key component of a large, multi-institutional, interdisciplinary UK NERC funded project (2.4M FEC) led by Professor Guy Woodward at Imperial, within the new NERC Emerging Chemicals Risks Programme (<https://nerc.ukri.org/press/-releases/2018/30-chemicals/>). We will use a novel combination of mathematical theory, ecoinformatics (e.g., including analysis of a global traits database), lab experiments and mesocosm experiments to understand alterations and recovery of biodiversity and ecosystem functioning following exposure to chemical (and climatic) stressors.

The ultimate aim of the project is to provide freshwater bioscientists a new framework for predicting the impacts of chemical stressors in ecosystems. To develop such a framework in the context of rapidly changing environments we need to move beyond the current reliance

on static diversity indices and single-species lab 'ecotox' models towards a general functional and trait-based approach that can be used as an integrated diagnostic tool in any ecosystem.

A key theoretical challenge will be modelling the microbial component of freshwater aquatic ecosystems.

The ads are here: < <https://tinyurl.com/y9dqd83j> >

<https://tinyurl.com/y9dqd83j> <https://tinyurl.com/y97ow5vf> Please pass this email on to anybody that might be interested in applying.

Thanks and Best wishes,

Samraat

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Samraat Pawar

Senior Lecturer, Department of Life Sciences Imperial College London, Silwood Park Campus 2.4 Kennedy Building Buckhurst Road Ascot, Berkshire SL5 7PY United Kingdom

Director, Masters in Computational Methods in Ecology and Evolution < <http://www.imperial.ac.uk/life-sciences/postgraduate/masters-courses/computational-methods-in-ecology-and-evolution/> > ,

Coordinator of Masters Courses, Silwood Park Campus Training Director, Centre for Doctoral Training in Quantitative Methods in Ecology and Evolution < <https://www.imperial.ac.uk/qmee-cdt/> > Web: [pawar-lab.org](http://pawar-lab.org) Email: [s.pawar@imperial.ac.uk](mailto:s.pawar@imperial.ac.uk) Office phone: +44 (0)2075942213

Samraat <[s.pawar@imperial.ac.uk](mailto:s.pawar@imperial.ac.uk)>

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## ImperialCollegeLondon HumanPopulationGenetics

A Research Associate position in Human Population Genetics is available to work with Dr Matteo Fumagalli on a 3-year research project at Imperial College London.

The project aims at developing a novel methodology to detect signatures of natural selection in the human genome using machine learning. By analysing genomic data from a large cohort of individuals from Latin America, this project aims at quantifying how much natural selection has shaped anthropometric and physiological traits in these populations. A series of outreach activities aimed at Latin American communities in the UK



will be organised to raise awareness of current research in population genetics.

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

A PhD (or equivalent) in population genetics, human genetics, bioinformatics, computational biology or a relevant field is required.

This is a full time, fixed term post for 3 years.

For informal enquiries please contact Dr Matteo Fumagalli via email at [m.fumagalli@imperial.ac.uk](mailto:m.fumagalli@imperial.ac.uk) .

Closing date 21 November 2018

Full information on the position and how to apply: <https://www.imperial.ac.uk/jobs/-description/NAT00222/research-associate-human-population-genetics> “Fumagalli, Matteo” <[m.fumagalli@imperial.ac.uk](mailto:m.fumagalli@imperial.ac.uk)>

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## Institut Pasteur Paris Phylogenetic- Molecular Epidemiology

Postdoc positions in phylogenetics and molecular epidemiology Olivier Gascuel Evolutionary Bioinformatics Lab Institut Pasteur, Paris, France

The huge amount of molecular data available nowadays can help addressing new and essential questions in evolution. However, reconstructing evolution requires models, algorithms, and statistical and computational methods of ever increasing complexity. Our Evolutionary Bioinformatics Lab aims at developing new methods and algorithms that are able to tackle efficiently the ever increasing amount of sequence data, in the fields of phylogenetics and molecular epidemiology. Most of our phylogenetic methods and software apply to a broad spectrum of questions, species and sequence, from mammals to viruses, DNA to proteins, and genes to complete genomes. This results in a strong impact of some of our papers (e.g. PhyML, Syst Biol 2003 & 2010, ~20,000 citations). We recently published a new version of the phylogenetic bootstrap (Nature 2018). Our second aim is to apply these tools (and others) to pathogens, mostly viruses, and especially HIV. The goals are multiple: understand their evolution (e.g. the emergence and

transmission of drug resistance mutations, AIDS 2015 & 2016), decipher their genome (e.g. to confirm the existence of the 10th gene of HIV, PNAS 2016), and design surveillance tools to control outbreaks. Most of the current methods to tackle these questions are based on Bayesian approaches, which are computationally heavy and not able to process the large datasets available nowadays. Developing methods that scale with the “deluge” of data is a real challenge, in terms of algorithmics but also modeling. Our LSD software using quadratic programming for dating molecular phylogenies, is a good example of such an approach. LSD is not only very fast but also fairly accurate (Syst Biol 2015).

In this context we search for skilled postdocs (18 months renewable contracts), with strong background in phylogenetics, algorithmics, statistical modeling and learning, and/or molecular epidemiology. Their research projects will be discussed during application, to fit the applicant ability and vision, and the global strategy of the Lab. To apply send a unique pdf document containing: a short CV (1 page); a motivation letter (1 page); your publication list; three references with contact details, to support your application.

Deadline: Dec. 1, 2018. Email address: [olivier.gascuel@pasteur.fr](mailto:olivier.gascuel@pasteur.fr) To know more about us: <https://research.pasteur.fr/en/team/evolutionary-bioinformatics/> <https://research.pasteur.fr/en/member/olivier-gascuel/> <http://www.lirimm.fr/-mceb2018/> <https://c3bi.pasteur.fr/> Olivier GASCUEL <[olivier.gascuel@pasteur.fr](mailto:olivier.gascuel@pasteur.fr)>

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## Karlsruhe Melanesian Biogeography

We invite applications for a postdoc-position at “State Museum of Natural History Karlsruhe” (SMNK), Germany [www.smnk.de](http://www.smnk.de) beginning 1. January 2019.

Subject: Biogeography and Evolution in the Melanesian Archipelago \* within the DFG-funded project “An integrative approach to systematics and evolution of Trigonopterus, a hyperdiverse genus of flightless weevils from Southeast Asia and the West Pacific (Coleoptera: Curculionidae)”. \* This is a collaborative project between Alexander Riedel (SMNK, Karlsruhe) and the Balke lab at SNSB-ZSM. Our model system is a genus of Melanesian weevils for which we have a large data foundation already, which we will build on, as well as expand further.

Responsibilities include, among others: \* independent

processing of sequence data \* independent work in the DNA lab (i.e. processing of samples, DNA extraction, Sanger-sequencing, sample storage). \* comparative analyses, together with other team members \* collaborative work on joint manuscripts

Employment qualifications: \* PhD in biology or in a relevant subject, e.g. evolutionary biology, entomology, ecology etc. \* excellent command of English, preferably also German \* profound knowledge of molecular systematics \* ability to collaborate within and outside our research group \* high motivation and ability to work under pressure

The following qualifications would be desirable: \* profound knowledge of Geneious software \* knowledge of Linux computer systems \* basic command of R \* basic knowledge of NGS sequencing and bioinformatics

What we are offering: \* Salary is according to paygrade TV-L E13 (100%) in the German Public Service scheme granted the presence of employment qualifications. \* opportunity to participate in a variety of research projects. \* The SMNK is among the larger natural history research museums in Germany and offers a friendly research environment. More information: [www.smnk.de](http://www.smnk.de)

This position is limited to a 18 month period. The SMNK advocates gender equality. Women are therefore encouraged to apply. Disabled people with largely equal qualifications will be especially considered. Please send your (preferably electronic) application with the relevant documents (motivation letter, CV, two reference letters, copies of certificates, up to five relevant reprints) to Staatliches Museum für Naturkunde, Dr. Alexander Riedel, Erbprinzenstr. 21, D-76133 Karlsruhe Or (preferably) by Email: [riedel@smnk.de](mailto:riedel@smnk.de)

Application deadline: 12. November 2018. Only applications arriving until this date will be considered. Notice: Application documents can only be returned if desired and expressly requested. Otherwise, all documents will be destroyed with the conclusion of the selection procedure. Unfortunately, costs arising from the application process cannot be reimbursed.

Dr. Alexander Riedel Staatliches Museum für Naturkunde Erbprinzenstr. 13 D-76133 Karlsruhe, Germany Tel ++49 721 175 2836 Fax ++49 721 175 2110 Riedel A <[riedel@smnk.de](mailto:riedel@smnk.de)>

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## KAUST SaudiaArabia 4 EvolGenomicsRice

Four Postdoctoral Positions Available to study Comparative Evolutionary Genomics of Rice & Its Wild Relatives in the Laboratory of Rod A. Wing

Four computationally savvy postdoctoral positions are available immediately to study comparative evolutionary and functional genomics of wild and domesticated rice in my new lab at KAUST, opening February 1, 2019. I am looking for a group of highly motivated, talented and creative scientists who are interested in discovering/exploring and utilizing standing natural variation across the genus *Oryza* to address both basic questions in evolutionary biology as well applied questions related to feeding the world. The majority of these questions will be addressed computationally, and can be functionally validated in the lab/field by highly skilled support staff. To get a taste for the research my lab is perusing, please see: Stein et al. (2018) *Nat. Genet.* 50:285-296; Wang et al. (2018) *Nature* 557:43-49; & Wing et al. (2018) *Nat. Rev. Genet.* 19:505-517.

Applicants should send a statement of interest, CV and contact information for three references to Rod A. Wing ([rwing@email.arizona.edu](mailto:rwing@email.arizona.edu)). Review of applicants will begin immediately and continue until filled. KAUST offers a highly competitive compensation package with room for advancement based on exceptional productivity.

About KAUST: King Abdullah University of Science and Technology (KAUST) is actively recruiting world-class students, faculty and researchers who are committed to meeting the grand challenges of science through bold and collaborative inquiry that focuses on issues of regional and global significance. At KAUST, we attract people from all around the world who want to create impact beyond their own achievements. Irrespective of their national origins, the people of KAUST are “people of the world” who uphold our values of achievement, passion, inspiration, citizenship, diversity, integrity, and openness. Located on the beautiful Red Sea coast of Saudi Arabia, KAUST sets exceptional standards in residences, recreational facilities and boasts a truly multicultural community environment which can be enjoyed by all, along with ample opportunities and time to keep work and life in harmony. Expats are very well looked after, with packages including a competitive salary, re-

location assistance, and accommodation. Located on the shores of the Red Sea in Saudi Arabia, KAUST offers superb research facilities to conduct fundamental and goal-oriented research to address the world's pressing scientific and technological challenges. In the Nature Index Rising Stars, KAUST was ranked #19 in the world of the fastest rising universities for high quality research output. KAUST was also ranked as the world's top university (#1) in citations per faculty ranking indicator as per QS World University Rankings for 2015-2016 and 2016-2017. In addition, KAUST was ranked #1 in the percentage of international student and #1 in the percentage of international faculty.

“Wing, Rod A - (rwing)” <rwing@ag.arizona.edu>

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## LMU Munich ComputationalPhylogenetics

Postdoc Position: Developing methods and models for gene-tree species-tree estimation

### Final week for applications ###

I invite applications for a postdoctoral research position to develop new methods and models for gene-tree species-tree estimation in my research group at the GeoBio-Center of the Ludwig-Maximilians-Universität (LMU), München. The position is funded by the DFG Emmy Noether program, and is initially available for 2 years, with a further 2 years of funding available depending on progress and interests. The position should start on 1 January 2019 or as soon as possible thereafter.

My group is broadly working on theory and computational methods for Bayesian inference of phylogeny (<http://www.evol.bio.lmu.de/research/hoehna>). The research directions include phylogeny inference, divergence time estimation, diversification rate estimation and model testing. All of our methods are implemented in the open-source program RevBayes (<http://www.RevBayes.com>) which is the successor software of the popular program MrBayes. The successful applicant will be part of our vibrant RevBayes group and will contribute to further development of the program. There will be opportunities for the successful applicant to work with and visit the research groups of my collaborators in Europe and the USA. Furthermore, I expect the candidate to become actively involved in our RevBayes workshops and hackathons.

I have recently been awarded an Emmy Noether grant

from the DFG (German Science Foundation) which will fund at least 3 positions over the next 5 years. This advertisement is for one of these positions and the applicant will join a young, dynamic and rapidly growing group. My group will be moving to the GeoBio-Center of the LMU Munich, one of Europe's top Universities (#32 world-wide; #8 in Europe; #1 in Germany; <https://www.timeshighereducation.com/world-university-rankings/lmu-munich>). The GeoBio-Center is located at the Königsplatz which is in walking distance to the historic city center (Marienplatz) and English Garden (city park with 3.75 km' area). The GeoBio-Center is highly interdisciplinary and consists of researchers from different departments including paleontology, molecular and evolutionary biology, zoology and botany.

The main question the postdoctoral researcher will work on is how to model biological processes that explain gene tree incongruence by developing models for gene-tree species-tree inference using genomic data. The process should model incomplete lineage sorting due to the multi-species coalescent, migration/hybridization between closely related species, and gene duplication and loss events. The models should be implemented in our software RevBayes using C++ for computational efficiency. Additionally, the postdoctoral researcher should perform simulation studies of the new models, apply them to empirical data, and lead the writing of manuscripts describing the work.

Applicants must have completed their PhD by the position start date, with degrees in evolutionary biology, computer science, mathematics, statistics, or a related field. The candidate must be enthusiastic and capable of working independently. Additionally, proficiency in programming and C++ and experience in phylogenetic methods development as well as Bayesian statistics are preferred skills. There will also be opportunities for the postdoc to develop their own, independent research ideas that are complementary to the goals of this project.

The position will be compensated according to the standard DFG salary scheme (TVL-E13 to E14 based on prior experience). The salary is very competitive and includes benefits such as health care, pension, unemployment insurance and child support (if applicable).

Further information can be found at <http://www.evol.bio.lmu.de/research/hoehna>, and questions should be directed to Sebastian Höhna (phyloinformatics@gmail.com). Applications, including a current CV, letter of motivation (1 page) and names and contact details of two referees should be sent to Sebastian Höhna before the deadline of 31 October 2018. The review process will begin on November 1st and applications

will be considered until the position is filled.

Sebastian Hoehna <phylogenomics@gmail.com>

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### London QMUL EvolutionSpiralCleavage

An ERC-funded Postdoctoral Research Assistant position is available at Queen Mary University of London (QMUL) in Dr José M (Chema) Martín-Durán's group, to work on the epigenetic regulation of conditional and autonomous development in spiral cleaving animals (e.g. annelid worms, molluscs, and nemertean).

Queen Mary is one of the top research-led universities in the UK and was ranked 9th among the UK multi-faculty universities in the Research Excellence Framework (REF 2014). All postdoctoral researchers are part of the QMUL Doctoral College, which provides support with high-quality training and career development activities.

This research position will focus on identifying the maternal factors that control early spiral cleavage and account for the differences in cell fate specification modes observed among spiralian lineages. The project will involve the use of multiple animal species, and combine proteomics and single-cell transcriptomics with classic embryological approaches. The findings from the project will untangle the molecular regulation of early spiral cleavage and provide a general understanding of the evolution of novel strategies of early development.

The ideal candidate for the position will have a PhD in developmental and/or evolutionary biology, with significant experience in embryological methods (in vitro fertilisation, embryo culture, in situ hybridisation, imaging), general molecular biology techniques (PCR, gene cloning, etc) and bioinformatics (RNA-seq data analyses, fluid use of command line tools and R). A track record of peer-reviewed publications is essential. Experience in single-cell RNA-seq experimental and computational methods and/or proteomics is highly desirable.

The post is funded by the European Research Council (ERC) and is a full-time position. The post is available for a period 2 years, with possibility a 1 year extension thereafter. The start date is 1st February 2019 or as soon as possible thereafter. The salary is dependent on qualifications, skills and experience and is in the range of 33,615 - 39,483 per annum, inclusive of London allowance. Benefits include 30 days annual leave and a

pension scheme.

Candidates must be able to demonstrate their eligibility to work in the UK in accordance with the Immigration, Asylum and Nationality Act 2006. Where required this may include entry clearance or continued leave to remain under the Points Based Immigration Scheme.

Informal enquiries are welcomed and encouraged, and may be made to Dr Martín-Durán via e-mail at [chema.martin@qmul.ac.uk](mailto:chema.martin@qmul.ac.uk)

For information about the School of Biological and Chemical Sciences and the Martín-Durán lab, please visit [martinduranlab.com](http://martinduranlab.com) and <http://www.sbcs.qmul.ac.uk>. To apply, please click on the link below.

Application enquiries should be directed to [recruitment@qmul.ac.uk](mailto:recruitment@qmul.ac.uk)

The closing date for applications is 31 October 2018. Interviews will be held shortly thereafter

[chema.martin@qmul.ac.uk](mailto:chema.martin@qmul.ac.uk)

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### MichiganStateU StatisticalPopGen

The Bradburd Lab at Michigan State is looking for one or more motivated, independent postdocs to join the lab! The lab is focused on population and evolutionary genetics, and especially on developing statistical methods to learn about the evolutionary history of populations over space and time in a variety of empirical systems, including humans. There are currently two main lines of inquiry in the lab:

- (1) Spatial population genetics: using population genetic data to study the processes that have generated patterns of genetic variation, with a particular focus on isolation, migration, and local adaptation.
- (2) Temporal population genetics: studying how population structure changes across space and through time, especially geared toward understanding population replacement and how populations adapt to climate change.

\* Details \* The specifics of the research projects are flexible, but could include methods for inferring spatial population genetic structure and admixture, quantifying the genomic fingerprint of adaptation to climate change, meta-analyses of patterns of population structure, or other projects that fit with lab research interests. Start date is also flexible (somewhere between Jan and Sept

2019). Initial appointment is for one year; subsequent renewal for one or more years is expected but conditional on performance. Salary will be competitive and dependent on previous experience. Benefits include medical and dental insurance.

\* MSU is the place to be \* Michigan State is a fantastic place to be a postdoc, with an extraordinarily favorable cost-of-living : salary ratio, as well as many other labs engaged in exciting population genetics and evolutionary research. The Bradburd 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.

\* Qualifications \* I am looking for creative scientists with excellent communication and organizational skills who want to join and contribute to a fun, supportive, and collegial lab atmosphere. The successful candidates should have a PhD in evolutionary biology, computational biology, mathematical biology/statistics, or a similar field. Lapsed physicists also welcome. Strong background in scripting/programming is required (minimally, R and command-line environment; perl/python and C/C++ a plus). Experience with bioinformatics a big bonus.

\* Application \* Applications will be reviewed starting 10/29/2018, but applicants will be considered until the positions are filled. Please feel free to email before applying with any questions. Direct all emails to bradburd AT msu DOT edu.

To apply, please visit [careers.msu.edu](http://careers.msu.edu), respond to Job #539582, and submit: (1) cover letter (2) current CV (3) contact information for 2 references.

Gideon Bradburd Dept. Integrative Biology Michigan State University [genescope.org](http://genescope.org)

“Bradburd, Gideon” <[bradburd@msu.edu](mailto:bradburd@msu.edu)>

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**NatIFishLab West Virginia  
FishViralEvolution**

Postdoc:

Postdoctoral Position Available at the National Fish Health Research Laboratory, Kearneysville, WV

The research laboratory of Dr. Luke Iwanowicz at the US Geological Survey, Leetown Science Center, National Fish Health Research lab seeks one highly motivated postdoctoral researcher with strong bioinformatics and molecular biology laboratory skills. We are seeking to

fill this position immediately.

The successful candidate will contribute to on-going research that involves the discovery, genomic and functional characterization of novel viruses that infect sentinel and recreationally important fishes. This work also includes the molecular evaluation of host-immune responses to natural viral infection utilizing targeted and global gene expression approaches.

The specific research focus involves characterizing and determining the significance of novel, emerging hepatitis and retroviruses in wild white suckers and their association with skin and liver tumors inhabiting the Great Lakes region. We recently identified a novel hepatitis B-like virus, white sucker hepadnavirus (WSHBV), that infects the white sucker. This virus belongs to the same family, Hepadnaviridae, of viruses that infect mammals and birds. In addition, we have now identified the other putative oncoviruses in this species that have yet to be fully characterized. At present it is not clear if the WSHBV or these other viruses are associated with neoplasia.

Applicants must have a PhD in Bioinformatics, Biology, Microbiology or a relevant subject area. Eligible applicants must be a US citizen and have received a PhD within the past 5 years. A strong bioinformatics background is necessary. Candidates should have an outstanding academic and publication track record commensurate with their career stage and experience. This position is currently funded for 13 months with the possibility of extension for a total of 4 years. Starting annual salary is \$68K US.

Prospective applicants should contact [liwanowicz@usgs.gov](mailto:liwanowicz@usgs.gov) to discuss the project. Please send a CV and letter of interest.

Contact: Dr. Luke Iwanowicz, [liwanowicz@usgs.gov](mailto:liwanowicz@usgs.gov)  
Where: Leetown Science Center, National Fish Health Research Laboratory, Kearneysville, WV

Kay Marano Briggs, PhD Branch Chief National Fish Health Research Laboratory Leetown Science Center 11649 Leetown Road Kearneysville, WV 25430 Office: 304-724-4431 Cell: 571-334-3889 Email: [kmbriggs@usgs.gov](mailto:kmbriggs@usgs.gov)

[kmbriggs@usgs.gov](mailto:kmbriggs@usgs.gov)

“Iwanowicz, Luke” <[liwanowicz@usgs.gov](mailto:liwanowicz@usgs.gov)>

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## NatIU Singapore EvolDevoGenomics

Postdoctoral position in Evolutionary Developmental Genomics

Dept. Biological Sciences, National University of Singapore

One to two postdoctoral positions are available in the lab of Antonia Monteiro to study the genetic basis of pigmentary and structural color development and evolution in butterfly wing scales. Ideal candidates will have prior experience or interest in developing the following projects: 1) single-cell transcriptomics for pupal wing scales to identify the transcriptomes of scale cells of different colors. 2) In situ hybridization and CRISPR-Cas9 to validate and test the function of candidate transcription factors, associated with specific colors, in color development. 3) Cell, tissue culture, and high-end confocal microscopy techniques to study the real-time actin cytoskeleton and chitin deposition dynamics of live scale cells in vitro.

The position(s) are initially for two years and can start immediately. The position(s) can be extended beyond the initial 2-year appointment. Salary will be competitive and commensurate with experience. Candidates with experience in developmental biology, cell culture, confocal microscopy, CRISPR-Cas9, and in the use of NGS data, are especially welcome to apply.

The Department of Biological Sciences offers world-class research labs and infrastructure and a convivial and collaborative environment. Singapore is a lush, green city offering tropical weather year around, a diversity of food, and nearby exotic locations.

Interested applicants should contact Antonia Monteiro ([antonia.monteiro@nus.edu.sg](mailto:antonia.monteiro@nus.edu.sg)) with a CV, a brief statement of research interests, and the names of three references.

Antonia Monteiro <[antonia8monteiro@gmail.com](mailto:antonia8monteiro@gmail.com)>

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## NorthCarolinaStateU GeneDrivePopulationGenetics

Postdoc: Population Genetics of Gene Drive and Insecticide Resistance in Mosquitoes

OVERVIEW: We recently received funding from NIH for a project titled 'Combining *Aedes aegypti* genomics and modeling to improve gene drive strategies and our understanding of insecticide resistance evolution'. *Aedes aegypti* is the primary vector of dengue, Zika, chikungunya, and urban yellow-fever. This project will fund two postdocs; one who will do the genomics and bioinformatics (individual already identified), and a second to work on the mathematical modeling aspects (this position).

PROJECT DESCRIPTION: Although the idea of using selfish genetic elements to drive specific transgenes into populations was proposed over 40 years ago, it is only recently with the advent of CRISPR-based gene editing technology that this approach has gained broad attention from researchers and the news media.

The most straightforward approaches for building gene drives using CRISPR/Cas9 technologies are theoretically expected to result in spread of the gene drive to individuals in all populations that are connected by even minimal gene flow. These approaches are appropriate in some cases but in others there are concerns about spread into non-target areas. Detailed mathematical models are needed to understand the dynamics of spread and the potential for resistance evolving to these gene drive mechanisms. More complex approaches have been proposed for developing gene drives that are spatial and/or temporally limited. More novel molecular approaches accompanied by population genetics modeling are needed for development of these restricted gene drives.

We aim at building mathematical models for assisting the design and deployment of gene drives for suppressing or altering the characteristics of *Aedes aegypti*, the main vector of dengue virus that impacts over 100 million people a year. *Ae. aegypti* has substantial fine scale population structure but detailed parameter estimates are lacking. Other work within the project is focused on accurately estimating these parameters through genomic approaches.

*Ae. aegypti* has rapidly evolved resistance to insecticides. We have a large number of samples of adult mosquitoes

(> 20,000) over a 17-year period during which a number of resistance mechanisms have evolved. We will use genomics data and modeling to determine the population structure of the mosquitoes so we can test a number of hypotheses about the dynamics of resistance evolution.

**JOB DESCRIPTION:** The postdoc in this position will lead modeling efforts to achieve both of the project goals—understanding the dynamics of insecticide resistance and developing and assessing novel gene drive approaches. General and more detailed models will be developed and explored. Our project is strengthened by collaborations with a number of labs in the US and in Peru. The postdoc will interact with members of these other research groups. There will be an opportunity for some work in Peru. The initial appointment is for two-years with funding for extension beyond that period.

**QUALIFICATIONS:** We are looking for a postdoc with a solid background in population biology and population genetics who has experience with modeling and who wants to do applied research. Experience with C++ or related languages is desirable. Ability to work independently and as a member of a team is essential.

To apply: email a cover letter and CV to Fred\_Gould@ncsu.edu AND Alun Lloyd@ncsu.edu

Fred Gould <fgould@ncsu.edu>

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## NortheasternU MarineEvolution

A Synthesis Postdoctoral Fellowship is available for the Research Coordinated Network for Evolution in Changing Seas (<https://rcn-ecs.github.io/>). This is an excellent opportunity for the successful candidate to conduct cutting edge synthesis across disciplines and engage with a global network of researchers studying adaptation to ocean change. The postdoc will have the opportunity to develop their own research questions for synthesis and meta-analysis of existing data.

The fellow will be based at Northeastern University's Marine Science Center and will work closely with PIs Kathleen Lotterhos and Geoff Trussell. NUMSC a strong research presence in evolution and ecology research and there are many opportunities for interaction and collaboration both there and in the greater Boston area.

Duration is for 24 months with an anticipated start date between January and June 2019.

Qualifications Must have a Ph.D.; be able to undertake substantially full-time research or scholarship; work under the supervision of a senior scholar.

Specific requirements: Applicants will be expected to develop and lead projects. Candidates are required to have a Ph.D. We welcome candidates from diverse research experiences in different ecosystems, however ideal candidates will have knowledge of marine science, evolutionary processes, and genomics. Candidates should have a strong track record of publication; have demonstrated an ability to manage and analyze large datasets; have strong organizational, written, and oral communication skills; and be able to work both independently and as part of a collaborative team. We think diversity is a component of excellence, and welcome applicants regardless of gender, ethnicity, sexuality, age or disability.

Apply here: <https://neu.peopleadmin.com/postings/-57999> Review of applications will begin on Dec 2.

To apply, please be prepared to attach the following materials in a single PDF (noted as cv in the application system):

- a. a cover letter
- b. a 3-4 page proposal (including references) on a synthesis project that you would like to undertake for this postdoc un the broad topic 'evolution in changing seas.'

Proposals should not require funds for the collection of data, but for the synthesis or modeling/metanalysis of existing data. However, the successful candidate can expect to have access to excellent computational facilities. The proposal should include a timeline (24 months) and a statement describing how the outcomes from the synthesis will advance knowledge in both evolutionary biology and marine science. Please format proposals with 12 point Time New Roman font and 1 inch margins.

c. a CV

d. Two examples of research publication (at least one that has completed the peer review process).

Please have three of your references email letters of recommendation to [evolvingseas@gmail.com](mailto:evolvingseas@gmail.com).

Contact Katie Lotterhos [k.lotterhos@northeastern.edu](mailto:k.lotterhos@northeastern.edu) for more information about research opportunities associated with the position.

[k.lotterhos@northeastern.edu](mailto:k.lotterhos@northeastern.edu)

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## OmahaZoo ConservationGenetics

Omaha's Henry Doorly Zoo & Aquarium Department of Conservation Genetics based in Omaha, Nebraska, is seeking one post-doctoral researcher with interest/expertise in the generation and analysis of next-generation sequencing data of lemurs, tortoises, and other taxa from Madagascar.

Duties and Responsibilities (include but not limited to): The successful applicant will be proficient in the construction genomic libraries and in solution hybridization methodologies for high throughput sequencing as well as all relevant analysis of large datasets, and manage next-generation sequence workflows. The researchers will be responsible for development, implementation, and support of software applications related to variant detection and interpretation from high-throughput experiments involving multiple species of lemurs, tortoises, and taxa from Madagascar. Assembly of whole genomes is in-progress, but will likely require additional analysis pertinent to specific research projects. Interested candidates should be highly motivated, organized, independent, and have extensive experience with molecular genomics and bioinformatics, and be able to efficiently write and revise manuscripts. Data on a variety from a variety of species has already been generated, thus candidates will be able to quickly start analysis and manuscript preparation. Travel to Madagascar to sup-

port the field programs of Omaha Zoo and the Madagascar Biodiversity Partnership to Madagascar is required for a single three-week interval once a year.

**WORKSKILLS:** Strong people skills, detailed oriented, willingness to learn and contribute, follow directions, meets deadlines

**Basic Qualifications:** The applicant should hold a PhD in bioinformatics, computer science, molecular genomics or related field and have more than one year of experience in high-throughput genome sequence analysis. Applicant should be experienced at software related to next generation sequencing data and be able to manipulate genomic data for phylogenetics and phylogeography. Our group's focus is large-scale sequencing for phylogenetics, phylogeography and evolutionary studies of lemurs (specifically the genera *Daubentonia* *Lepilemur*, *Microcebus*, *Propithecus*, and *Varecia*) and tortoises (genera *Astrochelys* and *Pyxis*) from Madagascar. Thus, previous experience in genome assemblies, annotation and analysis of a variety of next generation sequencing (NGS) pipelines is preferable. The ideal candidate will be independent, highly motivated, productive, and able to work effectively in a team with members from a variety of diverse backgrounds, and have outstanding written and verbal communication skills. The successful applicant must be interested in interdisciplinary science and field research and have a solid publication record that illustrates ability to conduct novel, independent research.

**Preferred Qualifications** Candidate should have 3+ years of experience in molecular biology, genetics, or bioinformatics. The position requires proficiency in programming (perl or python) and bash scripting using Linux operating systems. Applicants are also expected to be familiar with bioinformatics tools, should be able to implement complex computational pipelines, incorporate genomics databases and have extensive and credible laboratory experience with constructing genomic libraries. The applicant will need to work closely with two full time technicians to manage NGS lab work, as well as with a full time bioinformatician. While in Omaha the researchers will work with a variety of Malagasy graduate students, and is expected to assist with the progression of a variety of projects, and assist with completion of their degrees and peer-reviewed manuscripts. Based on all these above duties requires a candidate with excellent interpersonal skills, and the ability to train and teach both national and international audiences is necessary. Candidates must also be able to jump between a variety of projects, based on needs of the research group.

**Time Frame** These positions will be part of an on-going



team of rotating postdoc fellows. This position is expected to begin in early 2019. Initial appointment will be for two years, with possibility to extend to three years.

Application Must be legally entitled to work in the USA. Visa sponsorship is not currently available. Please apply at: <http://www.omahazoo.com/careers/> Learn more at: <https://madagascarpartnership.org/> Genetics Department <genetics@omahazoo.com>

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## Oxford SocialEvolution

### Social Evolution and Multicellularity

A Postdoctoral Research Assistant position is available in Ashleigh Griffin's lab in the Department of Zoology, Oxford, offering the opportunity to join an international, interdisciplinary research team developing planarians as a model system for studying the evolution of multicellularity.

This project applies expertise in social evolution from the Griffin group to social interactions between cells in the planarian flatworm. The project is jointly funded by the Volkswagen Foundation with cell biologists (Rink Lab, MPI Molecular Cell Biology and Genetics, Dresden) and bioengineers (Wang Lab, Department of Bioengineering/Developmental Biology, Stanford University, and represents an opportunity to establish a new line of research at the intersection of these fields.

Planarian biology offers unique opportunities for experimental manipulation and measurement of genetic heterogeneity within an organism. Collaborators on the project are responsible for developing cutting-edge techniques necessary to do this. The post will be responsible for establishing the planarian as a model system for testing predictions from social evolution theory in the griffin lab, and developing protocols for conducting fitness assays in planarians. Although experience working with planarians would be an advantage, full training will be provided if necessary. I'm primarily looking for someone who is interested in applying social evolution theory to cells of a multicellular organism.

Contact me: [ashleigh.griffin@zoo.ox.ac.uk](mailto:ashleigh.griffin@zoo.ox.ac.uk)

Ashleigh Griffin Professor in Evolutionary Biology Tutor in Biological Sciences New College

Department of Zoology 11a Mansfield Road Oxford OX1 3SZ

Tel: 01865 79483 <http://www.zoo.ox.ac.uk/-group/griffin/> Ashleigh Griffin  
<[ashleigh.griffin@zoo.ox.ac.uk](mailto:ashleigh.griffin@zoo.ox.ac.uk)>

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## OxfordU HIVPhylogenetics

Dear all,

We are seeking a Postdoctoral Researcher in Pathogen Dynamics to join Christophe Fraser and team at Oxford University. This is an exciting opportunity to conduct phylogenetic research on one of the largest HIV genomic data sets collected in Africa to date. You will work on the phylogenetics sub-study of the large HPTN 071 (PopART) intervention trial, which aims to tackle the HIV epidemic in Zambia and South Africa.

PopART Phylo will use phylogenetic methods to examine patterns of HIV transmission on a population level in selected HPTN 071 communities. This study will provide key insights into the source of new infections in these communities and will identify factors associated with HIV transmission. The results will help guide future studies and public health prevention programs that build on the results of the HPTN 071 trial to optimise community-based approaches for HIV prevention.

You will work in a team with two PopART modelers and the PANGEA team consisting of one project manager and two phylogenetics/phylogenomics/bioinformatics researchers to analyse the PopART Phylo and other PANGEA sequence data and answer questions relevant to the PopART trial and the PANGEA collaboration. The approach being used is multidisciplinary, combining viral genomics, bioinformatics, statistics, modelling, phylodynamics, and statistical genetics. You will develop innovative methods, combining statistical genetics, phylogenetics and/or phylodynamics, and mathematical modelling.

You must have a PhD in infectious disease epidemiology, pathogen dynamics, phylodynamics, statistical genetics, applied computing, statistics, applied mathematics, data sciences, or relevant quantitative science, together with relevant experience in genetics or statistics.

This full-time position is fixed-term for 2 years in the first instance.

The position is at Grade 8: 40,792 - 48,677 p.a. Candidates with potential but less experience who are seeking a development opportunity, may be considered for appointment at Grade 7 (32,236 - 39,609 p.a.) with the

responsibilities adjusted accordingly.

Further particulars, including details of how to apply, can be obtained at <https://www.ndm.ox.ac.uk/current-job-vacancies/vacancy/137350-Postdoctoral-Researcher-in-Pathogen-Dynamics> Applications for this vacancy should be made online and you will be required to upload a CV and supporting statement as part of your application.

The closing date for this post will be 12.00 noon on Monday, 12 November 2018.

For any further questions, don't hesitate to contact me at [lucie.abeler-dorner@bdi.ox.ac.uk](mailto:lucie.abeler-dorner@bdi.ox.ac.uk).

Best wishes, Lucie

Lucie Abeler-Dörner Nuffield Department of Medicine | University of Oxford Big Data Institute | Li Ka Shing Centre for Health Information and Discovery Old Road Campus | Headington | Oxford | OX3 7LF | United Kingdom [lucie.abeler-dorner@bdi.ox.ac.uk](mailto:lucie.abeler-dorner@bdi.ox.ac.uk)

Lucie Abeler-Dorner <[lucie.abeler-dorner@bdi.ox.ac.uk](mailto:lucie.abeler-dorner@bdi.ox.ac.uk)>

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## OxfordU SocialEvolution

Ashleigh Griffin Oct 15, 2018, 6:19 PM (9 days ago) to [evolDir@evol.biology.McMaster.CA](mailto:evolDir@evol.biology.McMaster.CA) Social Evolution and Multicellularity

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Contact me: [ashleigh.griffin@zoo.ox.ac.uk](mailto:ashleigh.griffin@zoo.ox.ac.uk)

Melanie Ghoull <[melanieghoul@gmail.com](mailto:melanieghoul@gmail.com)>

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## PennsylvaniaStateU PDF n LabManager AvianEvolution

Postdoctoral Researcher The Toews Lab at Pennsylvania State University is seeking to hire a Postdoctoral Researcher. The Researcher will generate and analyze high-throughput DNA sequencing data to address several evolutionary and ecological questions regarding the diversification of birds. Projects are open to development in their approach and focus, but several active research areas include: comparative genomics amongst several species of wood warblers, and using metabarcoding to understand the diets of insectivorous birds in diverse forest communities. The position requires a Ph.D. degree in biology, evolutionary biology, bioinformatics, genomics, or a related field. Familiarity with either R or Matlab, and experience using a Unix or Linux environment is highly preferred, as is field experience handling birds. Interested applicants should submit a cover letter describing their research interests, a current CV, and contact information for three references. This is a fixed-term appointment funded for one year from date of hire, with possibility of re-funding. Review of applications will begin immediately and continue until the position is filled. See <http://www.davetoews.com/-prospective/> for additional information. Applicants may apply through the following link: <https://psu.jobs/job/-83485> Research Technologist / Lab Manager The Toews Lab at Pennsylvania State University is seeking to hire a Research Technologist / Lab Manger. The person will analyze high-throughput DNA sequencing data to address several evolutionary and ecological questions regarding the diversification of wood warblers. Two active projects the technician will assist moving forward: comparative genomics amongst several species of wood warblers from whole-genome resequencing data, and using fecal metabarcoding data to understand the

diets of insectivorous birds in diverse forest communities. Interested applicants should submit a cover letter describing their research interests, a current CV, and contact information for three references. Review of applications will begin immediately and continue until the position is filled. This job will be filled as a level 1, or level 2, depending upon the successful candidate's competencies, education, and experience. Typically requires a Bachelor's degree or higher plus one year of related experience, or an equivalent combination of education and experience for a level 1. Additional experience and/or education and competencies are required for higher level jobs. An MSc or Ph.D. degree in biology, evolutionary biology, bioinformatics, genomics, or a related field is preferred, and/or experience from biotech or informatics positions. Familiarity with either R or Matlab, high-throughput sequencing library preparation, and experience with bioinformatics analysis using a Unix or Linux environment is highly preferred. This is a fixed-term appointment funded for one year from date of hire, with possibility of re-funding. See <http://www.davetoews.com/prospective/> for additional information. Applicants may apply through the following link: <https://psu.jobs/job/83480> David Toews, PhD. Postdoctoral Research Fellow Cornell Lab of Ornithology & Department of Ecology and Evolutionary Biology Cornell University toews@cornell.edu Ithaca, NY (607) 882-1200 <http://www.davetoews.com> David Toews <toews@cornell.edu>

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## SabanciU Turkey PDF PhD BeeEvolution

\*SabanciU " " University Post Doc/Graduate Student positions are open in the Mayack Lab\*

A master's student and postdoc position funded by a Turkey TUBITAK grant is available in Christopher Mayack's lab at SabanciU " " University located in Istanbul, Turkey. Interested students in becoming a PhD student are welcome to apply as well. The post doc, PhD, and Master's position can begin as early as February 11th, 2019, although the start date is negotiable. Full research scholarship funding is available for the Master's and post doc position for two years. Full TAship support is available for four years for interested students in pursuing a PhD.

The project is entitled "Regulation of honey bee appetite independent of the glucose insulin signaling pathway".

This project will be carried out in collaboration with neighboring Batu Erman's lab at SabanciU " " University but be led by the Mayack lab. The goal of the project is to determine if appetite levels are linked to fluctuating trehalose levels in the bee hemolymph and to see if this is mediated by octopamine release in the brain. Overall, the project seeks to develop a general theory for how the honey bee forager is able to rapidly and precisely control its appetite with large fluctuating demands in energy consumption. A mechanism independent of the glucose-signaling pathway, which more directly links the energetic state of the individual to appetite levels may play a major role in the rapid and precise regulation of appetite. Students will be involved in measuring honey bee appetite using the Proboscis Extension Assay, injecting sugars and pharmacological reagents into honey bees, quantifying neurotransmitters using HPLC and qPCR, using immunohistochemistry to map octopamine subtype receptors in the bee brain, and CRISPR-CAS-9 techniques for octopamine receptor knockdown.

For the post doc position, the successful candidate will have completed or be near completion of a PhD degree in the area of the neurobiology, insect physiology, or related areas. Experience in conducting brain micro-injections, CRISPR-CAS 9, HPLC, qPCR, and immunohistochemistry for brain mapping is desired. Managing or working with honey bees in the field or lab is considered a plus. The ideal candidate will also have experience in statistics and systems biology for involvement with other ongoing projects.

For more details on how to apply for the \*Master's and PhD position\* please click on the link " " <https://www.sabanciuniv.edu/en/admissions> The application deadline for Master's and PhD student applications is November 16th, 2018.

For \*post doc\* \*inquiries\* please send me a C.V., contact information for 3 references, and a 1-page cover letter describing research interests and background (use email subject line: "Post Doc Fellowship: Mayack Lab").

\*The working language in the lab and university is English.\* Students and post docs will be provided housing, a tuition waiver, health insurance, and a stipend that will more than cover the cost of living expenses in Turkey. Sabanci University is currently ranked as the number one university in Turkey, the molecular facilities and infrastructure within the Molecular Biology, Genetics and Bioengineering program are considered to be state-of-the-art. The Mayack lab is extremely diverse, containing many foreigner students. On an international level SabanciU " " ranks in the 350-400 best universities in

the world and is known to be one of the best emerging universities under the age of 50 years according to the TIME magazine's higher education rankings.

Dr. Christopher Mayack Assistant Professor Molecular Biology, Genetics and Bioengineering Program Faculty of Engineering and Natural Sciences Sabanci University Orhanli, Tuzla, Istanbul 34956 Turkey Office: FENS 2061 Phone: +90-216-568-7038 E-mail: cmayack@sabanciuniv.edu Fax: +90-216-483-9550 Uludağ Bee Journal Editor - <http://dergipark.gov.tr/uluaricilik> Christopher Mayack <cmayack@gmail.com>

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## Smithsonian MarineEvolution

Please see the postdoc fellowship announcement below.

More specifically, we have data and an idea for a great project that utilizes both our unique Gulf Stream zooplankton data with their regular coastal monitoring data. So if you are interested in questions of marine biogeography, larval dispersal, metabarcoding or zooplankton bioinformatics contact me to discuss an application.

Call for 2019 MarineGEO Postdoctoral Fellowship Proposals Submission Deadline: December 15, 2018 <x-apple-data-detectors://4> The Smithsonian's Tennenbaum Marine Observatories Network (TMON) invites proposals for the MarineGEO Postdoctoral Fellowship Program. Proposals should advance the goals of the Marine Global Earth Observatory (MarineGEO), a Smithsonian-led worldwide research collaboration dedicated to understanding changes in and relationships among the biodiversity, structure, and functioning of coastal marine ecosystems at local to global scales using comparative approaches. To learn more about MarineGEO, please visit the program website < <http://marinegeo.si.edu/> > (<https://marinegeo.si.edu>).

The 2019 MarineGEO Postdoctoral Fellowship is a two-year fellowship that specifically addresses the goals of the Smithsonian's MarineGEO program. Proposals must focus on comparative research across habitats and/or geographic scales utilizing MarineGEO observatories. In particular, proposed projects should address one of the following MarineGEO priorities.

1. Environmental-biodiversity coupling 2. Ecosystem processes and functioning 3. Coordinated networked experiment

For more information on these priorities, this postdoctoral fellowship opportunity, and how to

apply:<https://marinegeo.si.edu/marinegeo-postdoctoral-fellowship-call-proposals> Sent from my iPhone

OsbornK@si.edu

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## Southampton UK PlasticityGenomics

Dear Evoldir,

We are looking to recruit a postdoc for our recently funded project looking at the role of plasticity in adaptive divergence. We intend to use a new model system to test previous theory surrounding the importance of plasticity. Please find below the job ad or check out: <https://jobs.soton.ac.uk/Vacancy.aspx?ref64218BJ> Best wishes, Mark (m.chapman@soton.ac.uk)

We seek a Research Fellow to investigate 'The contribution of plasticity to adaptive divergence: domestication as a model'. The NERC/BBSRC co-funded project provides support for 3 years from 7th January 2019 to work with Dr Mark Chapman in the Ecology and Evolution group at the University of Southampton (<https://www.southampton.ac.uk/biosci/about/staff/mc1c12.page>), co-supervised by Dr Tom Ezard in Ocean and Earth Science (<https://www.southampton.ac.uk/oes/about/staff/te1e12.page>).

The goal of this project is to study the evolution of plasticity, comparing crops to their wild relatives, as a model for understanding the genetic basis and role of plasticity in adaptive divergence and the early emergence of new taxa.

You will have a PhD or equivalent professional qualification in a relevant subject area, with a strong evolutionary and genomic/transcriptomic component. A high level of competence in bioinformatics is required, with relevant experience demonstrated by publications in peer reviewed journals where possible. Competency in statistics and programming would be advantageous and experience with plants desirable. You should be a highly motivated scientist, capable of contributing to developing your own research project, a good team worker and an excellent communicator.

Chapman and Ezard are interested in fusing evolutionary theory with experimental approaches, and you would be expected to contribute intellectually to the development of the project. A broad interest in evolution as a whole is required. The current work will use extensive greenhouse and laboratory experiments coupled with

transcriptome, whole genome and methylome analyses to decipher the contribution of plasticity to adaptive divergence. It offers excellent potential for publishing in high impact journals and developing independent research agendas.

You will assume leadership on the project, including significant intellectual contribution, setting up experiments and involvement in making decisions about current and future research directions. You will work in a highly collaborative atmosphere supported by state-of-the-art research facilities that will provide a perfect environment to carry out the project.

For informal enquiries, please email Dr Mark Chapman (m.chapman@soton.ac.uk) in the first instance.

– Dr. Mark A. Chapman M.Chapman@soton.ac.uk +44 (0)2380 594396

Biological Sciences University of Southampton Life Sciences Building 85 Highfield Campus Southampton SO17 1BJ

Mark Chapman <markchapman4774@gmail.com>

mitted at: <https://www.sujobopps.com/postings/77197>. Interested candidates are also encouraged to contact Steve Dorus (sdorus@syr.edu) and Scott Pitnick (spitnic@syr.edu) to learn more about the position and research group.

Funding is available for at least 2 years, with renewal after one year of satisfactory performance. Start date is flexible but preferably during the first half of 2019. Information about benefits can be found at: <https://hr.syr.edu/benefits> Center for Reproductive Evolution (<http://cre.syr.edu>): The CRE is a highly collaborative, multi-laboratory collective dedicated to advancing our understanding of reproductive trait evolution. Occupying a shared suite of laboratories within SUs Life Sciences Complex, CRE researchers work together on diverse taxa using highly integrative approaches to explore molecular, physiological, morphological and behavioral mechanisms of male-female interactions to understand adaptive processes underlying the origin and maintenance of biodiversity.

Stephen Dorus <sdorus@syr.edu>

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## SyracuseU EvolGenomicsReproduction

\*\*\* Postdoc in evolutionary reproductive genomics \*\*\*

The Dorus and Pitnick Labs in the Center for Reproductive Evolution at Syracuse University are seeking a post-doctoral researcher with a strong background and/or interest in evolutionary genetics, transcriptomics/proteomics, bioinformatics or the development of novel computational tools to link genotypic and phenotypic evolution. The research group currently has a range of projects related to the molecular evolution of male and female reproduction with a specific emphasis on exploring co-evolving molecular systems between the sexes. Applicants should have a strong background in biology and programming languages (i.e. R, python, etc.). Applicants should also have evidence of their creativity and potential, including publications that demonstrate their computational skills in genomic research. Successful applicants will have the opportunity to work with a diverse range of transcriptomic/proteomic datasets and will be encouraged to assume an active role in the direction and design of future investigations.

Applications, including a CV, research statement and the contact information of three references, can be sub-

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## TexasAMU 2 SpeciationBehaviorGenomics

Postdoctoral Research Associate

Speciation Genomics

Delmore Lab, Texas A&M University

delmorelab.com

Recent advances in sequencing technologies have allowed us to answer questions in the speciation literature we couldn't even begin to approach before. These advances have also resulted in the generation of new exciting questions in speciation genomics. We are searching for a Postdoctoral Research Associate to lead a project on this topic.

One example of a research avenue we are interested in is the observation that estimates differentiation between closely related populations and across the genome are often highly variable. Divergent selection at "speciation genes" and gene flow were initially proposed to explain these patterns but the importance of linked selection has recently been highlighted. Linked selection itself could result from positive or negative selection which may or may not carry over from past speciation events.

Take a look at the publications below to see the kind of

work we have already done on this topic. We encourage applicants to bring their own ideas as well and are open to work on different aspects of speciation genomics.

Delmore KE et al. 2018. Comparative analysis examining patterns of genomic differentiation across multiple episodes of population divergence in birds. *Evolution Letters* doi:10.1002/evl3.46.

Irwin DE, Alcaide M, Delmore KE, et al. 2016. Recurrent selection explains parallel evolution of genomic regions of high relative but low absolute differentiation in a ring species. *Molecular Ecology*, 25:4488-4507.

Delmore KE et al. 2015. Genomic analysis of a migratory divide reveals candidate genes for migration and implicates selective sweeps in generating islands of differentiation. *Molecular Ecology*, 24:1873.

#### >>> ENVIRONMENT

We are part of the Biology Department at Texas A&M (<https://bio.tamu.edu>) along with the interdisciplinary programs of Genetics (<https://genetics.tamu.edu>) and Ecology and Evolutionary Biology (<https://eeb.tamu.edu>). These programs bring together members of many departments across campus from international backgrounds.

We have considerable expertise in the fields of evolution and genomics including groups working on comparative genomics, quantitative genetics, phylogenetics, theoretical population genetics and the development of computational methods.

The atmosphere is collaborative, enthusiastic and supportive. You will be able to develop substantial genomic and computational skills while you're here, collaborate and build your own career.

Texas A&M is a Tier 1 institution with an amazing number of facilities to support research. College station itself is a small, friendly university town that is located between Austin and Houston. It is the perfect venue for getting work done while having access to vibrant city centers full of entertainment and culture.

#### >>> EDUCATION AND EXPERIENCE

Applicants should have a PhD in Biology or a related field. They should also have experience working with next-generation sequencing data, computational and statistical methods.

We are interested in applying statistical models to questions of speciation genomics. Accordingly, experience and/or a desire to work with these tools would be a great addition to an applicants skills but is not required.

We expect applicants to exhibit a desire to work collaboratively and help maintain a supportive environment

in our lab. This could include helping undergraduate and/or graduate students working on similar topics but will require a good degree of self-motivation as well. It's important to be able to present ideas and research to others so we also value good oral communication skills.

#### >>> APPLICATION

Applicants should send (1) a letter of motivation that includes their research interests and career goals and (2) a CV that includes the names, emails and phone numbers of at least two references to Kira Delmore (kdelmore@bio.tamu.edu). Applications will be reviewed as received with a final deadline of Nov 1. Please get in touch if you cannot make this deadline or have any additional questions.

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#### >>> POSITION

Postdoctoral Research Associate

Behavioural Genomics

Delmore Lab, Texas A&M University

delmorelab.com

Behavioural genomics has seen a substantial increase in research interest over the last years, with an interest in the evolutionary literature to expand beyond studying the genetic basis of morphological traits to study behaviours in this context. Seasonal migration is a great candidate for this expansion; advances in movement ecology are allowing us to track organisms like songbirds on migration and are paralleled by advances in sequencing technologies that have allowed us to apply these tools to non-model organisms. Work on the genetic basis

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

**TexasAMU CorpusChristi  
PlantDiversity**

Postdoctoral Research Associate in Plant Science

Job Location: Texas A&M University - Corpus Christi

Description: 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.

All positions are security-sensitive. Applicants are subject to a criminal history investigation, and employment is contingent upon the institutions verification of credentials and/or other information required by the institutions procedures, including the completion of the criminal history check.

Equal Opportunity/Affirmative Action/Veterans/Disability Employer committed to diversity.

To apply: Complete an online application by visiting <https://tamus.wd1.myworkdayjobs.com/en-US/-TAMUCC.External/job/Corpus-Christi-TAMUCC/-Postdoctoral-Research-Associate-in-Plant-Science.R-013745> Application review will begin on November 22, 2018, and will continue until the position is filled.

Barnabas Daru

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](mailto:Barnabas.Daru@tamucc.edu) Lab Website: <https://barnabasdaru.com> "Daru, Barnabas H." <[barnabas\\_daru@fas.harvard.edu](mailto:barnabas_daru@fas.harvard.edu)>

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## Texas AMU PlantEvolution

Postdoctoral Fellowship in Plant Science at Texas A&M University-Corpus Christi

The Daru lab (<https://barnabasdaru.com>, @BarnabasDaru) at Texas A&M University-Corpus Christi (TAMUCC) invites nominations and direct applications for a postdoctoral researcher (1-2y) in plant science. We especially seek outstanding early-career scientists who would benefit from using a range of biodiversity data sources including biological collections record and carefully curated climate layers to explore research topics including ecological niche modeling, biogeography, assessing systematic and phylogenetic diversity, climate change, species' invasions, morphological and physiological diversity across a landscape, plant-insect and/or -pathogen interactions, and conservation. We especially encourage applications with 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 are also welcome.

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

ELIGIBILITY Applications are sought from early career individuals with a Doctorate in plant evolution, botany, plant ecology, horticulture, or related discipline. Applicants must have their Doctorate when they initiate their term at the TAMUCC. Preference will be given to candidates who have received their Doctorate within the last 5 years. International candidates are welcome to apply.

**FELLOWSHIP DETAILS** This postdoctoral fellowship is awarded for one year, with the possibility of renewal for an additional year, to enable the fellow to work under the mentorship of faculty member, Dr. Barnabas Daru. The Fellow must initiate his or her term at TAMUCC within one year of notification of award and will be expected to be in full-time residence during his or her tenure.

**APPLICATION INFORMATION** To apply please send, in one pdf, a short cover letter, CV and contact info for three referees to Sue Vickers (sue.vickers@tamucc.edu). For questions or associated PhD opportunities contact barnabas.daru@tamucc.edu. The final selection process will begin on December 3, 2018, but earlier applications are welcome and will be reviewed as received.

Texas A&M University-Corpus Christi is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by law.

“Daru, Barnabas H.” <barnabas.daru@fas.harvard.edu>

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## TrinityC Dublin 2 MolecularEvolutionYeastGenetics

Postdoctoral Fellow in Molecular Evolutionary Genetics

Applications are invited for a postdoctoral fellow position in Prof Aoife McLysaght’s research group at the Smurfit Institute of Genetics, Trinity College Dublin. The position will commence on 7 January 2019, or as soon as possible thereafter.

The successful candidate will be responsible for the design and implementation of molecular genetic experiments in yeast and will need to be able to work independently and of their own initiative.

The fellowship is part of our new European Research Council-funded project DOUBLEEXPRESS, whose aim is to explore the complex relationship between gene duplicability and gene expression and how this may something be linked to disease risk. Some of the ideas behind this are described in a recent paper : Rice, Alan M, and Aoife McLysaght. 2017. ‘Dosage-Sensitive Genes in Evolution and Disease.’ BMC Biology 15 (1). BioMed Central: 78. doi:10.1186/s12915-017-0418-y.

You will be part of a team that will comprise three post-

doctoral researchers and four PhD students. Working on this project will require ingenuity, flexibility, initiative, and the ability to devise new experimental approaches.

Salary will be on the IUA scale, commensurate with experience: <https://www.iua.ie/research-innovation/-researcher-salary-scales/> Information about our lab is available at [www.gen.tcd.ie/molevol](http://www.gen.tcd.ie/molevol) Applicants should email a cover letter and CV (including contact details for two referees) to aoife.mclysaght@tcd.ie

Applications accepted until 17 December 2018, at 17.00 hrs (Irish Time), or until a suitable candidate is identified

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Postdoctoral Fellow in Molecular Evolutionary Genetics

Applications are invited for a postdoctoral fellow position in Prof Aoife McLysaght’s research group at the Smurfit Institute of Genetics, Trinity College Dublin. The position will commence on 7 January 2019, or as soon as possible thereafter.

The successful candidate will be responsible for the design and implementation of comparative genomics analyses and will need to be able to work independently and of their own initiative. Interest and experience in molecular evolution and programming/bioinformatics is essential.

The fellowship is part of our new European Research Council-funded project DOUBLEEXPRESS, whose aim is to explore the complex relationship between gene duplicability and gene expression and how this may something be linked to disease risk. Some of the ideas behind this are described in a recent paper : Rice, Alan M, and Aoife McLysaght. 2017. ‘Dosage-Sensitive Genes in Evolution and Disease.’ BMC Biology 15 (1). BioMed Central: 78. doi:10.1186/s12915-017-0418-y.

You will be part of a team that will comprise three postdoctoral researchers and four PhD students. Working on this project will require ingenuity, flexibility, initiative, and the ability to devise new experimental approaches.

Salary will be on the IUA scale, commensurate with experience: <https://www.iua.ie/research-innovation/-researcher-salary-scales/> Information about our lab is available at [www.gen.tcd.ie/molevol](http://www.gen.tcd.ie/molevol) Applicants should email a cover letter and CV (including contact details for two referees) to aoife.mclysaght@tcd.ie

Applications accepted until 17 December 2018, at 17.00 hrs (Irish Time), or until a suitable candidate is identified

Aoife Mc Lysaght <MCLYSAGA@tcd.ie>



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## UBritishColumbia EvolutionaryPopulationGenomics

Postdoctoral Fellow position in Evolutionary Population Genomics Irwin Lab, Department of Zoology University of British Columbia

The Department of Zoology at the University of British Columbia invites applications for a Postdoctoral Fellow position in Evolutionary Population Genomics. We are looking for a dedicated researcher for an 18-month position in avian evolutionary population genomics, with the possibility of extension for a longer period. The successful candidate will be working closely with Prof. Darren Irwin on analyses of genomic differentiation and hybridization between bird species, and will be responsible for data generation, data analysis and drafting of publications to be submitted to peer review journals. For more information regarding research in the Irwin lab, see <https://www.zoology.ubc.ca/~irwin/irwinlab/>. Applicants are required to hold (or will soon obtain) a PhD in the field of evolutionary population genomics, bioinformatics, or a closely related field. Preference will be given to applicants with a good publication record related to speciation, hybrid zones, and/or genome evolution. The ideal candidate will have demonstrable expertise in the analysis of population genomic/genetic data, well-developed bioinformatic skills, and experience producing genome assemblies. The successful candidate is expected to work in close collaboration with, and to assist in advising graduate students in Dr. Irwin's research group. They are also expected to assist with laboratory management and upkeep. The successful candidate must possess strong communication, leadership, and administrative skills.

Applicants should send their documents to Dr. Darren Irwin by email to [irwin@zoology.ubc.ca](mailto:irwin@zoology.ubc.ca). Complete applications should include: - a cover letter - curriculum vitae - example publication(s) in peer reviewed journals, demonstrating the candidate's excellence in evolutionary population genomics - the contact information for three referees

Applications will be received at least until October 30, 2018, or until position is filled. The expected start date is negotiable, but preferably within the January-June 2019 range.

Equity and diversity are essential to academic excellence.

An open and diverse community fosters the inclusion of voices that have been underrepresented or discouraged. We encourage applications from members of groups that have been marginalized on any grounds enumerated under the B.C. Human Rights Code, including sex, sexual orientation, gender identity or expression, racialization, disability, political belief, religion, marital or family status, age, and/or status as a First Nation, Metis, Inuit, or Indigenous person. All qualified candidates are encouraged to apply.

<http://www.zoology.ubc.ca/jobs> —

Darren E. Irwin Professor Biodiversity Research Centre, and Department of Zoology, University of British Columbia 6270 University Boulevard Vancouver, BC, Canada, V6T 1Z4

email: [irwin@zoology.ubc.ca](mailto:irwin@zoology.ubc.ca) Office Location: Biodiversity Research Centre, room 209 Lab Location: Biodiversity Research Centre, floor 1 Office phone: 604-822-4357 Fax: 604-822-2416 <http://www.zoology.ubc.ca/~irwin/> Darren Irwin <[irwin@zoology.ubc.ca](mailto:irwin@zoology.ubc.ca)>

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## UCalgary EvolutionaryAnthropology

Postdoctoral Scholar in Biological Anthropology/ Medical Genetics

Department: Anthropology and Archaeology; Medical Genetics

Institution: University of Calgary

Address: 2500 University Drive NW, Calgary, AB, T2N 1N4, Canada

Job type: Postdoc

Apply by: 1 November 2018

Application email: [amanda.melin@ucalgary.ca](mailto:amanda.melin@ucalgary.ca); use subject line "EHPDS application".

Applications are invited for a two-year postdoctoral scholar position at the University of Calgary, Canada, that will span the Department of Anthropology & Archaeology, and the Department of Medical Genetics. Funding for this position is provided by the University of Calgary's Eyes High Strategy in support of recruiting exceptional postdoctoral scholars.

The postdoctoral scholar will spearhead a new line of collaborative research uniting the University of Calgary

(Amanda Melin), New York University (James Higham), and the University of Tokyo (Shoji Kawamura). This research will address the genetic underpinnings of variation in perceptual abilities of non-human primates, including cone ratios, colour vision, acuity, and age-related changes in vision, the retina, lens, and other ocular tissues as well as their evolutionary and biomedical significance. Analyses will capitalize on a large tissue bank and integrate genomics, transcriptomics, and morphology. The goal is to probe both evolutionary and evolutionarily-informed biomedical questions about the effects of age, sex, and genotype on retinal morphology, gene expression, and disease phenotypes.

Minimum requirements of applicants, by the time of appointment, are a Ph.D. degree in biological anthropology, biology, genetics/genomics, or a related field. Graduates (received PhD) from the University of Calgary are not eligible. The appointment must commence within five years of the PhD degree being awarded. Applicants must have relevant experience in analysis of genomic datasets, and demonstrate a strong record of original research and scholarship. Ideal applicants will also have experience handling biological tissues, DNA / RNA extraction, or training in anatomy, especially related to ocular morphology.

The start date for the position is negotiable but must begin in 2019. The postdoctoral scholar will receive \$55 000 CAD in salary annually, as well as health benefits. Interested applicants should email application materials (letter of application summarizing interests, skills and goals, CV, and contact information for 3 referees) to Amanda Melin (amanda.melin@ucalgary.ca), subject line "EHPDS application".

The University of Calgary is an Equal Opportunity Employer. There are no citizenship requirements. All qualified applicants will receive consideration for employment without regard to race, color, religion, age, sex, sexual orientation, gender identity or expression, national origin, genetic information, or disability or any other legally protected basis.

Gwen Duytschaever <gwen.duytschaever2@ucalgary.ca>

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## UCalifornia Berkeley CelegansMicrobiome

A postdoc position is available at the lab of Michael Shapira at UC Berkeley's department of Integrative Biology (<https://ib.berkeley.edu/labs/shapira/>).

We have recently established *C. elegans* as a new model for studying Host-Microbiota Interactions and we are interested (not exclusively) in using it to characterize factors that shape microbiota composition, microbiota contributions to host evolution, and modes of commensal transmission, or preference. All motivated researchers are welcome to apply; preference will be given to candidates with experience in molecular biology/microbiology, knowledge of R, and/or experience in *C. elegans* Biology.

Applications are welcome effective immediately. Please contact Michael Shapira directly: mshapira@berkeley.edu

Michael Shapira UC Berkeley Department of Integrative Biology Valley Life Sciences Bldg room 5155A Berkeley, CA 94720-3140 (510) 643-2579

mshapira@berkeley.edu

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## UCalifornia Berkeley EvolutionaryGenetics

Postdoctoral Scholar Position Available in the Department of Plant and Microbial Biology - Evolutionary and Ecological Genetics

There is an opening for a postdoctoral position available in the lab of Dr. Benjamin Blackman. The aims of the position will be tailored to the expertise of the successful applicant and complement the Blackman Lab's broad interests in the genetic basis of adaptation and domestication, the ecology and evolution of plant development, and mechanisms of organism-environment interaction.

Applying tools from evolutionary genomics, molecular genetics, and field ecology in sunflowers (*Helianthus*) and monkeyflowers (*Mimulus*), our research addresses the following questions: How do plants cope with daily and seasonal environmental fluctuations? How and why

do these response evolve along environmental gradients? How are multi-trait adaptations assembled over evolutionary time?

Current NSF-funded work is focused on following the history and function of sunflower domestication alleles with ancient DNA and gene expression studies as well as the genetics of natural variation in solar tracking and floret maturation. Additional lab and field work in wild sunflowers and monkeyflowers centers on the genetic changes and ecological pressures contributing to clinal variation in developmental plasticity, with an emphasis on responses to seasonal cues.

The postdoc will work closely with the PI, collaborators, and lab personnel to design and lead research in the lab and field on the genetics and ecology of adaptive diversity in photoperiodic flowering in monkeyflowers. The position also involves preparing grant proposals and manuscripts, data management and dissemination, and mentoring graduate and undergraduate students. The ideal candidate will demonstrate the ability to integrate across biological disciplines, identify and troubleshoot promising new methodologies independently, and use the appointment to develop and pursue novel, exciting questions.

**Basic Qualifications:** Advanced degree or enrolled in advanced degree program at the time of application.

**Additional Qualifications** PhD (or equivalent international degree) required by the appointment start date. The candidate may have no more than four years of post-degree research experience by start date.

**Preferred Qualifications:** Demonstrated expertise in evolutionary and developmental genetics is strongly preferred. Expertise in analysis of genomic or transcriptomic datasets, programming for bioinformatics, biostatistics, selection analysis, plant physiological ecology, QTL mapping, or gene expression studies is desirable.

**Appointment:** The targeted start date for this position is January 2019. The initial appointment is for one year, with renewal based on performance and funding availability. This is a full time appointment.

**Salary and Benefits:** The annual salary range for this position is \$49,188 - \$57,528. Salary will be commensurate with qualifications and experience. Generous benefits are included (<http://vspa.berkeley.edu/postdocs>)

**To Apply:** <https://aprecruit.berkeley.edu/apply/-JPF01895> Interested individuals should include a 1-2 page cover letter that summarizes research interests and professional goals, along with a current CV and the names and contact information of three references. Letters of reference may be requested for finalists. It is

optional to include a statement addressing past and/or potential contributions to diversity.

This position will remain open until filled.

Questions regarding this recruitment can be directed to Dr. Benjamin Blackman at [bblackman@berkeley.edu](mailto:bblackman@berkeley.edu).

The total duration of an individual's postdoctoral service may not exceed five years, including postdoctoral service at other institutions.

All letters will be treated as confidential per University of California policy and California state law. Please refer potential referees, including when letters are provided via a third party (i.e. dossier service or career center) to the UC Berkeley Statement of Confidentiality (<http://apo.berkeley.edu/evalltr.html>) prior to submitting their letters.

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status. For the complete University of California nondiscrimination and affirmative action policy see: <http://policy.ucop.edu/doc/4000376/-NondiscrimAffirmAct> The Department is interested in candidates who will contribute to diversity and equal opportunity in higher education.

The University of California, Berkeley has an excellent benefits package

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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>

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## UCalifornia LA MicrobiomePopGenetics

Postdoc: UCLA.PopulationGenetics/Microbiome

Postdoctoral research position at UCLA in population genetics/evolutionary dynamics of the microbiome A postdoctoral research position is available in the lab of Dr. Nandita Garud in the Department of Ecology and Evolutionary Biology at the University of California, Los Angeles. We are broadly interested in understanding the evolutionary dynamics of natural populations

with a current focus on microbiomes. The lab develops statistical and computational methods to gain insight into evolutionary processes from population genomic data.

The successful candidate will have substantial input in the specific nature of their research project. However, the project should broadly fit within the lab's goals of learning about adaptation in natural populations and evolutionary dynamics in the microbiome.

Additional information can be found at: <http://garud.eeb.ucla.edu> The Ecology and Evolutionary Biology department at UCLA offers a cutting-edge research environment with many opportunities for collaboration. The lab will have affiliations with the Microbiome Center at UCLA and the Institute for Quantitative and Computational Biology at UCLA.

The position is available for 1 year and may be continued for additional years contingent on successful progress and available funding. Salary will be competitive. The University of California offers a competitive benefits package including medical, dental, vision, life insurance, accidental death and dismemberment insurance, and short and long term disability insurance. Candidates should have a Ph.D. in biology, genetics, computer science, bioinformatics, statistics, computational biology, or a related field. A background in population genetics/evolutionary genomics is preferred. As this is a computational position, proficiency in programming in R, Perl, or Python, and shell scripting is essential. Preference will be given to candidates with a strong publication record, evidence of substantial research productivity, and ability to successfully communicate scientific information. Review of applications will begin immediately and will continue until the position is filled. The position is expected to start in Fall/Summer 2019, though specific dates are negotiable. Interested candidates should send a CV, short (1-2 pages) description of research interests and ideas for possible projects, and contact information for 3 references to Nandita Garud at [nandita.garud@gmail.com](mailto:nandita.garud@gmail.com).

The University of California is an equal opportunity/affirmative action employer.

Nandita Garud <[nandita.garud@gmail.com](mailto:nandita.garud@gmail.com)>

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## UCalifornia Merced ConiferMicrobiome

Postdoctoral position available in the Frank lab at the University of California Merced.

The Frank lab is recruiting an exceptional and highly motivated postdoc to work on diversity and function of the conifer foliage microbiome.

The successful candidate will contribute to ongoing research that seeks to understand the diversity, function, and transmission routes of the microbiome associated with foliage of western high elevation conifers.

The specific research focus involves characterizing the taxa responsible for nitrogen fixation in conifer foliage. Recent findings suggest that both evergreen and deciduous trees have the potential to directly access atmospheric N via N<sub>2</sub>-fixing bacteria in the foliage. These findings are important to our understanding of how plants in N-limited ecosystems meet their N demand, and to balancing ecosystem N budgets. Illumina sequencing of the 16S rRNA gene has shown that the conifer microbiome is largely consistent across species and geographic sites, with several potential N<sub>2</sub>-fixing uncultured taxa dominating the community.

The successful candidate will use a combination of enrichment of bacterial cells and DNA; metagenomics and single cell genome (SAG) sequencing; amplification of nitrogenase (*nif*) genes using PNA PCR blockers to exclude conifer *nif* homologs; designing and using *nif* primers for specific groups of bacteria; and bioinformatics analysis of metagenomes and SAGs. Metagenome- and SAG sequencing is performed in collaboration with Tanya Woyke's group at the Joint Genome Institute in Walnut Creek, CA. There are also opportunities for collaborating with Jennifer Pett-Ridge's group at Lawrence Livermore National Lab for fluorescence in situ hybridization. The project involves sampling lodgepole pine in nearby Yosemite National Park.

Applicants should have a PhD, completed or completion imminent, in microbiology, evolution, genomics, bioinformatics, or related fields. Programming and bioinformatics experience is desirable.

This position begins in January and is funded for 12 months with the possibility of extension for a total of 2 years. Salary is based on the University of California Academic Salary Scales.

Prospective applicants should contact Carolin Frank at [cfrank3@ucmerced.edu](mailto:cfrank3@ucmerced.edu) to discuss the project.

The University of California, Merced is a dynamic new university campus in Merced, California, which opened in September 2005 as the tenth campus of the University of California and the first American research university in the 21st century. The campus is centrally located with easy access to the Sierra Nevada, Yosemite National Park, the San Francisco Bay Area, and the California coastline.

U.C. Merced is an affirmative action/equal opportunity employer with a strong institutional commitment to the achievement of diversity among its faculty, staff and students.

[cfrank3@ucmerced.edu](mailto:cfrank3@ucmerced.edu)

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## UCDavis: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](mailto: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](mailto:akopp@ucdavis.edu)

<http://kopplab.ucdavis.edu/> “[akopp@ucdavis.edu](mailto:akopp@ucdavis.edu)”  
<[akopp@ucdavis.edu](mailto:akopp@ucdavis.edu)>

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## UCollege London EvolutionOfSpiralCleavage

TO APPLY: <https://www.jobs.ac.uk/job/BNC166/-research-fellow> Deep homology of spiral cleavage in lophotrochozoan embryology:

Comparative single cell sequencing of early embryonic stages of spirally cleaving animals. Lophotrochozoan animal phyla (including molluscs, annelids and flatworms) diverged in the Cambrian. Despite this great evolutionary distance, these animals share a unique pattern of early cell divisions called spiral cleavage.

Professor Max Telford's research group want to test whether this extraordinary phenotypic conservation is underpinned by comparable genetic conservation and are wishing to appoint a postdoctoral research associate to work on this project.

The three year project, funded by the Leverhulme trust, aims to read the genes expressed in individual early blastomeres of different spirally cleaving spiralian embryos and to compare the genetic programmes of this process across phyla.

Using newly-developed single cell sequencing technology, we will sequence mRNAs of equivalent blastomeres from different phyla to establish the degree to which developmental deployment of gene expression is conserved across Lophotrochozoa. Ultimately we aim to understand the genetic basis of the extraordinary conservation of this developmental process.

Max Telford Professor of Zoology Department of Genetics, Evolution and Environment, University College London, Darwin Building, Gower Street, London WC1E 6BT, UK. Tel: +44 (0)20 7679 2554 (Internal: 32554) Fax: +44 (0)20 7679 7096 <http://www.ucl.ac.uk/biology/academic-staff/-telford/telford.html> Open access journal *EvoDevo*: <http://www.evodevojournal.com/> “Telford, Max” <[m.telford@ucl.ac.uk](mailto:m.telford@ucl.ac.uk)>

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## UEdinburgh GutEcosystemDynamics

Postdoc - University of Edinburgh - The ecology and evolution of gut ecosystems in a wild mammal

Applications are invited for a full-time Post-doctoral Research Associate position to work as part of a recently awarded large NERC grant, entitled: "The Ecology Within: The impact of gut ecosystem dynamics on host fitness in the wild." This is a multi-disciplinary, multi-institution award, which will use repeat sampling, meta-barcoding and meta-genomics techniques to explore the causes and consequences of gut community structure in wild sheep. While there is growing appreciation for the role that our gut "microbiota" plays in human health and nutrition, we know surprisingly little about the drivers of variation in gut community structure and how gut community dynamics impact host health and fitness in the wild. This project will address these questions using data collected by the long-term study of Soay Sheep on the remote St Kilda archipelago.

Over the next four years, we will be regularly collecting faecal samples from known individual sheep in our study population on St Kilda. These samples will be used to assess the community structure of bacteria, nematodes and protozoans present, and to assess the plant species composition to assess diet.

The post-holder will develop and use novel statistical methods to assess the roles of environment, diet, and host genetics in driving the composition of the gut microbiota, and assess the effects of the gut microbiota on host survival and reproduction. You will be part of a large, dynamic research team, involving 12 investigators from 6 different institutions and up to 8 project staff. You will be a key part of this team, and there will be opportunities to collaborate with other team members on these other aspects of the project. The job will be based in Luke McNally's laboratory in the Institute of Evolutionary Biology, also working closely with Andrew Free's laboratory in the Institute of Quantitative Biology, Biochemistry and Biotechnology, as well as collaboration with other collaborators from ecology, parasitology, and genetics backgrounds.

The post is full time and available from 1st March 2019 for 36 months.

Applicants should have (or be near completion of) a PhD

in an appropriate biological science, computer science, statistics, or related subjects. The candidate should also have excellent coding ability in R or similar programming language, and experience in either microbial bioinformatics or quantitative genetics.

Further information available on-line: St Kilda Soay sheep project: <http://soaysheep.biology.ed.ac.uk/> McNally lab website: <http://lukemcnally.wordpress.com>  
Luke McNally

School of Biological Sciences,

University of Edinburgh

Luke.McNally@ed.ac.uk

<http://lukemcnally.wordpress.com/> MCNALLY Luke  
<Luke.McNally@ed.ac.uk>

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## U Exeter Applied Social Evolution

U.Exeter Penryn campus with Ben Raymond. 3 yr Postdoc available on collaborative BBSRC project applying social evolution theory to direct selection for pathogen virulence - see <https://tinyurl.com/y8oy3vox>  
Applications by 15Nov

B.Raymond@exeter.ac.uk

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## UGeorgia EvolutionaryGenetics

Post-Doctoral Position at the University of Georgia

The Sweigart lab seeks a postdoc to lead a collaborative project extending and developing transgenic approaches in the wildflower genus *Mimulus* (monkeyflower), a model for evolutionary and ecological genetics/genomics. This position comes with a good deal of flexibility and the postdoc will be encouraged to apply newly developed transgenic methods to research questions of his/her own interest (e.g., to identify causal variants of ecologically important traits, to explore developmental mechanisms of novel plant phenotypes). The ideal candidate will have both a strong background in evolutionary biology and some experience with molecular genetic techniques.

This is an NSF-funded, collaborative project that involves the labs of Andrea Sweigart and Wayne Parrott

at the University of Georgia, and Yaowu Yuan at the University of Connecticut. UGA, where the position will be based, has an exceptionally strong group of plant geneticists and evolutionary biologists across campus. Greenhouse, laboratory, and computational facilities are also excellent. UGA is located in Athens, a vibrant college town famous for its music scene and restaurants.

The position is available for up to three years, and includes a competitive salary and full benefits. The position is available immediately, but the start date can be somewhat flexible for the right candidate. To apply, please email a CV, a brief statement of research accomplishments and future goals, and contact information for three academic references to: [sweigart@uga.edu](mailto:sweigart@uga.edu). Informal inquiries are also encouraged.

For more information about this and other research projects in our lab, go to: <http://www.genetics.uga.edu/sweigartlab> . – Andrea L. Sweigart Department of Genetics 120 East Green Street Davison Life Sciences Building, C218 University of Georgia Athens, GA 30602-7223 office phone: (706)-542-7001 [sweigart@uga.edu](mailto:sweigart@uga.edu)

Andrea Sweigart <[sweigart@uga.edu](mailto:sweigart@uga.edu)>

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## UHongKong EvolutionaryGenomics

\*\*\* Postdoctoral Position in Evolutionary Genomics \*\*\*

The Sin lab at the University of Hong Kong is looking for a Postdoctoral Researcher to work on avian genomics projects. The lab has several study systems and active projects addressing population genomics, comparative genomics, genotype-phenotype association, and behavioural genetics. A key focus of the lab is to use genomic, epigenomic and transcriptomic data to understand the genetic basis and evolution of phenotypic traits. Collaborative international projects are already underway, ensuring a quick and productive start. The Postdoctoral Researcher will have extensive opportunities to interact with collaborators and involve in behavioural ecology experiment in the field and animal behaviour experiment in the lab.

Duration: The initial appointment is for one year, with renewal based on performance. Funding is available for two years. This is a full time appointment.

Qualifications: Applicants must have completed a PhD (or will have completed a PhD before the position start) in evolutionary biology, genomics, population genetics,

bioinformatics or a related discipline, with a demonstrated record of research achievement (via publications). They will also be proficient with programming in a scripted language (e.g. Python, Perl, or R). Experience with shell scripting and computing cluster environments and/or experience working with whole genome datasets in population or comparative genomics will be beneficial.

Working Environment: HKU is an English-speaking institute and one of the most international universities in Asia. It has a rank of 36 according to the Times Higher Education World University Rankings 2019.

Start Date: Flexible between November 2018 to mid-2019.

Salary: A highly competitive salary plus annual leave and medical benefits will be offered.

How to apply: Please send a CV (with contact information for three references), cover letter describing research interests and skills, and copies of publications to Simon Sin ([sinyw@hku.hk](mailto:sinyw@hku.hk)). Review of applications will begin immediately and continue until the position is filled.

Simon Sin

Assistant Professor School of Biological Sciences Kadoorie Biological Sciences Building The University of Hong Kong Pok Fu Lam Road, Hong Kong [www.simonywsin.com](http://www.simonywsin.com) <[sinyw@hku.hk](mailto:sinyw@hku.hk)>?

[sinyw@hku.hk](mailto:sinyw@hku.hk)

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## UMaine GenomicAdaptation

Postdoctoral Researcher 'V Spatiotemporal Scales of Phenotypic and Genomic Adaptation University of Maine

As part of a new, collaborative NSF funded EPSCoR Track-2FEC research and training program in the genomic ecology of coastal organisms and genome-phenome relationships in the wild, the University of Maine seeks to hire a postdoctoral researcher who will develop and conduct meta-analyses on the spatial and temporal scales of phenotypic and genomic evolution in the wild. The postdoc will conduct meta-analyses based on existing and new evolutionary rates databases to understand important spatial aspects of phenotypic divergence from microgeographic to global scales. This work will be conducted in the labs of Drs. Michael Kinison and Brian Olsen, in collaboration with a diverse team of investigators, graduate students, and under-

graduate students studying the ecological genomics and eco-evolutionary feedbacks of adaptation in tidal marsh birds. Additional collaborators will include EPSCoR partners at the University of New Hampshire and international collaborators at McGill University (Quebec). The successful candidate must have a strong background in evolutionary ecology and strong quantitative skills, with preference to those with demonstrated experience with meta-analyses or analysis and visualization of complex datasets. Consistent with our program scope and to advance an integrated understanding of adaptation in nature, we are especially interested in candidates who show promise to engage intellectually across the diverse scales of genomes, phenomes, and environmental feedbacks. The postdoc will be expected to participate in broader programmatic activities, including mentoring of junior researchers. In turn, the postdoc will receive extensive mentoring, career development training, and professional opportunities, in alignment with a personal career development plan.

Start Date: January 2019 (Negotiable) Terms of employment: Salary of \$48,000, health insurance, and other benefits are included. The position is for an initial 2-year period. Applicants must have completed all Ph.D. degree requirements prior to the start of the appointment.

Application: Submit names and contact information for three references, a CV, and a 2-page statement of your research experience and interests. The statement should address how this position would advance your career goals and describe your experiences with and vision for collaborative science, including your commitment to diversity and inclusion. To apply, send the requested materials to Dr. Michael Kinnison, Professor of Evolutionary Applications, at the University of Maine at [mkinnison@maine.edu](mailto:mkinnison@maine.edu) and Dr. Brian Olsen, Associate Professor, School of Biology and Ecology, at the University of Maine at [brian.olsen@maine.edu](mailto:brian.olsen@maine.edu). Review of applications will begin November 1, 2018. Remote (e.g., phone or Zoom) and an on-campus interview and presentation will be required of short-listed finalists.

The University of Maine System is an EEO/AA employer, and does not discriminate on the grounds of race, color, religion, sex, sexual orientation, including transgender status and gender expression, national origin, citizenship status, age, disability, genetic information or veteran's status in employment, education, and all other programs and activities. Please contact the Director of Equal Opportunity, 101 N. Stevens Hall, Orono, ME 04469 at 207-581-1226 (voice), TTY 711 (Maine Relay System), or [equal.opportunity@maine.edu](mailto:equal.opportunity@maine.edu) with questions or concerns.

"Kovach, Adrienne" <[Adrienne.Kovach@unh.edu](mailto:Adrienne.Kovach@unh.edu)>

## UManitoba SeaLampreyComparativeTranscriptomics

POSTDOCTORAL POSITION IN COMPARATIVE TRANSCRIPTOMICS: POSITION NUMBER 26426

DEPARTMENT OF BIOLOGICAL SCIENCES, UNIVERSITY OF MANITOBA, CANADA POSITION START DATE: January 1, 2019 or as soon afterwards as possible. CLOSING DATE FOR APPLICATIONS: November 1, 2018, or until the position is filled. RANK: Postdoc SALARY RANGE: \$45,000 per year (plus benefits) for 2 years.

PROJECT OVERVIEW: The compound 3-trifluoromethyl-4-nitrophenol (TFM) has been used as a lampricide in the Great Lakes of North America for more than 50 years. TFM is highly toxic to lampreys relative to non-target fishes that are able to detoxify TFM. In contrast, niclosamide, also used as a lampricide, is highly toxic to lampreys and other fishes. A mixture of TFM + 1-2% niclosamide enhances TFM toxicity; however, the mechanisms involved in the interaction of TFM and niclosamide are unknown. This work will use a comparative transcriptomics approach to characterize the complex cellular responses in the gill and liver of sea lamprey relative to a non-target TFM-tolerant teleost fish, the bluegill, after exposure to TFM, niclosamide, and a TFM and niclosamide mixture. Differentially expressed genes and cellular pathways affected by exposure will be identified and physiological biomarkers of TFM or niclosamide exposure will be measured to link changes in gene expression with established physiological endpoints.

The project objectives are to identify genes involved in the larval sea lamprey's response to TFM and niclosamide on their own and in a mixture and to compare these responses with those of the bluegill to identify lamprey-specific responses to lampricide treatments to aid in future sea lamprey control in the Great Lakes. The successful applicant will join a collaborative team that involves researchers at the University of Manitoba (Drs. Ken Jeffries, Margaret Docker, Colin Garroway), Wilfrid Laurier University (Drs. Mike Wilkie, Jonathan Wilson) and the University of Regina (Dr. Richard Manzon).

JOB DESCRIPTION: The primary task of this position



will be to perform the transcriptome assemblies and the differential expression analyses on tissues from the lampricide exposure studies. However, the postdoc will also have the opportunity to pursue their own research questions as well as contribute to other projects.

#### RESPONSIBILITIES:

\* To conduct research on the transcriptomic effects of lampricide exposure in sea lamprey and bluegill. To contribute significantly to experimental design, data interpretation and statistical analysis. Potentially to assist with the lampricide exposures. \* Disseminate research through publications in peer reviewed journals, presentations at conferences, and assisting with the preparation of progress and final reports. \* To attend and contribute to research seminars, lab and departmental meetings. \* Assist other researchers with analyses and research.

#### QUALIFICATIONS:

\* PhD in toxicogenomics, ecological genomics, or bioinformatics. \* Proven ability to process, analyse and interpret RNA- sequencing data. \* Proficiency with analysis software and programming languages, as well as ability to write or adapt scripts for differential expression analysis. \* Highly independent, however with the ability to work collaboratively as part of a team. \* Well-developed leadership, management and student mentoring skills.

**CONTACT:** Applicants should send their curriculum vitae, a cover letter outlining their relevant experience and research interests, and the names of three references by email to:

Dr. Ken Jeffries Department of Biological Sciences University of Manitoba Ken.Jeffries@umanitoba.ca

Only qualified applicants will be contacted for an interview. The University of Manitoba is strongly committed to equity and diversity within its community and especially welcomes applications from women, racialized persons/persons of colour, Indigenous peoples, persons with disabilities, persons of all sexual orientations and genders, and others who may contribute to the further diversification of ideas. All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority. Application materials, including letters of reference, will be handled in accordance with the protection of privacy provision of The Freedom of Information and Protection of Privacy (Manitoba). Please note that curriculum vitae may be provided to participating members of the search process. Please send your materials to the department contact listed in the ad.

Colin Garroway Assistant Professor Department of Bio-

logical Sciences University of Manitoba Winnipeg, Manitoba tel: (1) 204-4748267

Colin Garroway <Colin.Garroway@umanitoba.ca>

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## UMaryland EvolQuantitativeGenomics

The Fritz lab is seeking a post-doc to study the evolutionary and quantitative genomic basis of traits involved in insect adaptation to humans and their environment. The job posting can be found at:

[https://www.meganfritzlab.com/uploads/1/0/0/9/100940634/position\\_announcement-fritz\\_post-doc\\_nov2018.pdf](https://www.meganfritzlab.com/uploads/1/0/0/9/100940634/position_announcement-fritz_post-doc_nov2018.pdf) Megan Lindsay Fritz <mfritz13@umd.edu>

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## UMassachusetts Amherst DarwinFellowship

Darwin Fellowship, University of Massachusetts Amherst

The Graduate Program in Organismic and Evolutionary Biology at University of Massachusetts Amherst announces a two-year POSTDOCTORAL FELLOWSHIP/lectureship. OEB draws together more than 90 faculty from the Five Colleges (University of Massachusetts Amherst and Smith, Hampshire, Mount Holyoke and Amherst Colleges), offering unique training and research opportunities in the fields of ecology, organismic and evolutionary biology. Our research/lecture position provides recent PhD's an opportunity for independent research with an OEB faculty sponsor, as well as experience mentoring graduate students and teaching a one-semester undergraduate biology course. To be qualified, a candidate must have a recent PhD in a field relevant to ecology, organismic or evolutionary biology and proven teaching skills. Position subject to availability of funds.

To apply online, please go to <http://careers.massachusetts.edu/cw/en-us/job/-495959?ApplicationSubSourceIDand> submit a CV, statements of research and teaching interests, and contact information (email) for 3 professional references.

Also please arrange to have a letter from your proposed OEB faculty sponsor sent to [oeb@bio.umass.edu](mailto:oeb@bio.umass.edu). A list of OEB faculty and additional information is available at [www.bio.umass.edu/oeb](http://www.bio.umass.edu/oeb). Applicants should apply by the priority deadline of December 15, 2018 in order to ensure consideration. The position is expected to start in August 2019. Questions about this search may be sent to: [oeb@bio.umass.edu](mailto:oeb@bio.umass.edu).

\*UMass Amherst is committed to a policy of equal opportunity without regard to race, color, religion, gender, gender identity or expression, age, sexual orientation, national origin, ancestry, disability, military status, or genetic information in employment, admission to and participation in academic programs, activities, and services, and the selection of vendors who provide services or products to the University. To fulfill that policy, UMass Amherst is further committed to a program of affirmative action to eliminate or mitigate artificial barriers and to increase opportunities for the recruitment and advancement of qualified minorities, women, persons with disabilities, and covered veterans. It is the policy of the UMass Amherst to comply with the applicable federal and state statutes, rules, and regulations concerning equal opportunity and affirmative action.\*

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Sarah L. Emel, Ph.D. Darwin Postdoctoral Fellow Organismic and Evolutionary Biology Graduate Program University of Massachusetts Amherst

Sarah Emel <[semel@umass.edu](mailto:semel@umass.edu)>

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## UMichigan EvolutionGenomicsReptiles

Job: Postdoctoral researcher : Population Genomics / Phylogenetics of Squamate Reptiles

A postdoctoral position in population genomics / phylogenetics of squamate reptiles is available in Dan Rabosky's lab at the University of Michigan, Ann Arbor. The postdoctoral researcher will generate and analyze genomic datasets at the species and population level for squamate reptiles ("lizards", snakes) from Australia and the Neotropics. Research on this project potentially includes, but is not limited to:

(1) The relationship between demographic processes (as quantified using population genetics) and macroevolutionary speciation rates, as measured on time-calibrated phylogenetic trees.

(2) How ecological processes and organismal traits interact to influence the genetic structure of natural populations

(3) Species diversity and historical biogeography of squamate reptiles in Australia and the Neotropics.

(4) Patterns of hybridization across reptiles and implications for speciation and regional community structure.

For applicants with interests in herpetology, the project is an opportunity to engage in exciting and broadly comparative studies across dozens or hundreds of taxa, focusing on two of the world's most iconic hotspots for squamate biodiversity. Rabosky and collaborators on this project have active field research programs on reptile ecology & biodiversity in Australia and throughout the neotropics, and the position offers opportunities for fieldwork in these regions. The project offers additional potential for collections-based research on reptiles and the successful applicant will be part of a dynamic group of researchers affiliated with the U-M Museum of Zoology, one of the world's largest herpetological research collections.

The ideal candidate will have demonstrable experience with the generation and/or analysis of intra- or inter-specific genomic datasets (e.g., target sequence capture, whole-genome sequencing, RAD). Bioinformatics and data management skills are essential. We welcome applications from candidates with strong computational and quantitative skills who are interested in the projects listed above, even if they have less experience with genomic data generation per se.

This position is funded in part by NSF. This position is part of a multi-institutional collaboration involving Gabriel Costa (Auburn University - Montgomery), Sonal Singhal (Cal State - Dominguez Hills), Guarino Colli (University of Brasilia), and Craig Moritz (Australian National University). Funding is available for at least 2 years, with renewal after one year contingent on satisfactory performance.

Applications should be sent to Dan Rabosky ([drabosky@umich.edu](mailto:drabosky@umich.edu)). Please include a cover letter describing your research interests and future goals, a C.V., and contact information for three references. Any questions about the position can be directed to Dan Rabosky. Review of applications will start on November 7, 2018 and will continue until the position is filled. The position is available immediately, but the start date is negotiable.

The University of Michigan is an equal opportunity / affirmative action employer, and the university has a strong institutional commitment to diversity among faculty, staff and students.

Dan Rabosky Associate Professor & Curator of Herpetology Museum of Zoology & Department of Ecology and Evolutionary Biology University of Michigan Ann Arbor, MI 48109-1079 USA

drabosky@umich.edu <http://www.raboskylab.org>  
<http://www.lsa.umich.edu/ummz/> “dra-  
 bosky@umich.edu” <drabosky@umich.edu>

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## UMinnesota PhyloComparativeMethods

Postdoctoral Position at the University of Minnesota, Twin Cities

A postdoctoral researcher is sought to develop phylogenetic comparative methods and apply them to studies of plant macroevolution. This project is a collaboration between the labs of Emma Goldberg at the University of Minnesota (where the position will be based), Itay Mayrose at Tel Aviv University, Tracy Heath at Iowa State University, and Heath Blackmon at Texas A&M University. More information about our labs is available at <<http://www.umn.edu/~eeg>>, <<http://www.tau.ac.il/~itaymay>>, <<http://www.phyloworks.org>>, and <<http://coleoguy.github.io>>.

The work will focus on improving and applying methods for testing the influence of traits on lineage diversification. One line of attack is developing new model-based phylogenetic comparative methods, targeting known weaknesses in existing approaches. The other is creating tools for more robust use of existing and future methods, including designing benchmark test suites and tests of model adequacy. Empirical work will make use of extensive datasets on plant reproductive systems and chromosome counts, and it has the potential to make one of the strongest cases yet for the importance of species selection. The postdoc will also contribute to new workshops teaching phylogenetic comparative methods, to be held in the Midwest US and in Israel.

Relevant skills and knowledge include: macroevolution of reproductive systems and genome structure; phylogenetic comparative methods use and development; mathematics of stochastic processes; computational statistics; database and user interface design; programming in R, RevBayes, and C++; software for testing macroevolutionary hypotheses; software tools for reproducible research workflows; writing clearly for both technical and general readers; teaching in a computer lab setting.

Expertise is not required in all these areas, however! We are generally looking for a biologist with macroevolutionary interests and good technical problem-solving skills.

Initial appointment will be for one year with competitive salary and benefits. Renewal for another year is possible, pending excellent performance and mutual agreement. The start date is flexible. To apply, please assemble (i) a 1-3 page cover letter that highlights how your research interests and skills fit with this project, (ii) a CV, and (iii) names and contact information for three professional references. Materials should be submitted online at <<http://www1.umn.edu/ohr/employment/>> (Job Id #326772). Review of completed applications will begin on November 15, but candidates will be considered until the position is filled. Informal inquiries are welcome, directed to Emma Goldberg <[eeg@umn.edu](mailto:eeg@umn.edu)>.

The Twin Cities campus of the Univ Minnesota is home to a diverse set of local collaborators, expertise, and resources, particularly within the departments of Ecology, Evolution & Behavior <[cbs.umn.edu/eeb](http://cbs.umn.edu/eeb)> and Plant and Microbial Biology <[cbs.umn.edu/plantbio](http://cbs.umn.edu/plantbio)>, the Bell Museum <[bellmuseum.umn.edu](http://bellmuseum.umn.edu)>, and the Minnesota Supercomputing Institute <[msi.umn.edu](http://msi.umn.edu)>. The campus is located in the heart of the Minneapolis-Saint Paul metropolitan area, which is rich in cultural and natural attractions (and ice skating rinks).

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Emma E. Goldberg Assistant Professor Dept. of Ecology, Evolution and Behavior University of Minnesota – Twin Cities [eeg@umn.edu](mailto:eeg@umn.edu) <http://www.umn.edu/~eeg> “[eeg@umn.edu](mailto:eeg@umn.edu)” <[eeg@umn.edu](mailto:eeg@umn.edu)>

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## UMinnesota SpeciationMatingSystems

Postdoctoral Positions at the University of Minnesota, Twin Cities

We are seeking one to two postdocs to work on a new NSF-funded project on the contribution of mating system evolution to speciation. The project is a collaboration among three labs at the U. of Minnesota: David

Moeller ( [moellerlab.wordpress.com](http://moellerlab.wordpress.com)), Yaniv Brandvain ( [brandvainlab.wordpress.com](http://brandvainlab.wordpress.com)), and Emma Goldberg ( [umn.edu/~eeg](http://umn.edu/~eeg)). The project integrates field experiments, population genomics, and mathematical modeling to investigate the evolution of character displacement and reinforcement between incipient species of *Clarkia xantiana*, an annual plant with a long history of research in evolutionary biology.

Some of the major goals of the project are to (1) examine the role of natural selection in the evolution of reproductive character displacement using a combination of mathematical models and field experiments, (2) quantify the ecological and genetic costs of hybrid formation using field experiments and genomic analysis, and (3) assess the consequences of pre- and post-zygotic isolating mechanisms for genome-wide patterns of introgression. As a part of the broader project, we are sequencing and assembling the genome of *C. xantiana*.

For the initial postdoc hire, we are particularly interested in a candidate with interests in mathematical modeling and genomic analysis. The ideal candidate has expertise in one of these areas along with serious interest in developing skills in another aspect of the project. The postdoc would be expected to contribute primarily to this funded project, but would also have the freedom to develop work outside of it.

A second postdoc hire will be made in the near future. For that position, we are particularly interested in candidates with expertise in ecological genetics and field experimentation, along with interests in developing skills in genomic analysis. We would be happy to discuss this position and timing if interested.

Initial appointment will be for one year with competitive salary (\$48,426) and full benefits. Renewal for 1-2 more years is possible, pending excellent performance and mutual agreement. The start date is flexible. To apply, please assemble (i) a 1-3 page cover letter that highlights how your research interests and skills fit with this project, (ii) a CV, and (iii) names and contact information for three professional references. Materials should be submitted online at <https://humanresources.umn.edu/jobs> (Click on the tab in the center of the page that corresponds to their situation; Search Job ID# 327218). Review of completed applications will begin December 1, 2018, but candidates will be considered until the position is filled. Informal inquiries are encouraged, directed to any of the PIs.

The Twin Cities campus of the U. of Minnesota is home to an exciting and diverse set of scientists, expertise, and resources, particularly within the Departments of Ecology, Evolution & Behavior ( [cbs.umn.edu/eeb](http://cbs.umn.edu/eeb)) and Plant and Microbial Biology ( [cbs.umn.edu/plantbio](http://cbs.umn.edu/plantbio)), the U.

of Minnesota Genomics Center ( [genomics.umn.edu](http://genomics.umn.edu)), the Minnesota Supercomputing Institute ( [msi.umn.edu](http://msi.umn.edu)), and the Bell Museum of Natural History ( [bellmuseum.umn.edu](http://bellmuseum.umn.edu)). The campus is located in the heart of the Minneapolis-Saint Paul metropolitan area, which is rich in cultural attractions, has an extensive park system, lies close to a diverse array of natural areas, and is consistently ranked as one of the best places to live in the U.S.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

– David A. Moeller Associate Professor Plant & Microbial Biology University of Minnesota [moellerlab.wordpress.com](http://moellerlab.wordpress.com)

David Moeller <[moeller@umn.edu](mailto:moeller@umn.edu)>

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## UNebraska Lincoln PopulationBiology

Population Biology Postdoctoral Research Fellowship

THE UNIVERSITY OF NEBRASKA-LINCOLN is seeking applications for a 2-year postdoctoral position in the Population Biology Program of Excellence.

The goal of the Population Biology-POE Postdoctoral Fellowship is to stimulate synergistic interactions between faculty and postdoctoral scholars broadly interested in the area of Population Biology. We are seeking applicants who have recently completed, or will soon complete, their PhD and who conduct cutting edge research related to faculty research areas in the Ecology, Evolution & Behavior (EEB) section in the School of Biological Sciences ( <http://biosci.unl.edu/research-specializations>). POE postdoctoral fellows pursue a research program under the sponsorship of an EEB faculty member and are expected to enhance graduate education, serve as a model for graduate students in career development, and promote interactions among faculty at UNL. While in residence, the postdoctoral fellow are expected to lead a seminar, symposium or outreach project that will appeal to Population Biologists across campus.

Interested candidates should submit a CV, a 1-page description of previous or current research and a 2-3

page description of proposed research, and arrange for two recommendation letters from non-UNL faculty and one recommendation letter from the UNL faculty sponsor (a total of 3 letters) to be emailed to the address below. The research proposal should be developed in collaboration with the proposed faculty sponsor. The successful applicant must have completed their degree by the start date. Priority will be given to applicants who are new to UNL. Research descriptions for past and current POE postdoctoral fellows can be viewed at <http://biosci.unl.edu/population-biology/>. EEB faculty at UNL are highly integrative and collaborative, using a wide array of approaches and study systems to study a diverse set of biological questions, from the molecular determinants of adaptation and speciation to multimodal animal communication to the community ecology of extinct mammals to the ecology and evolution of infectious disease. Lincoln is consistently rated as one of the best places to live in America, with a low cost of living, over 130 miles of bike trails throughout the city, and a vibrant restaurant and music scene.

Application materials should be emailed to: Dr. Clay Cressler at: [cressler2@unl.edu](mailto:cressler2@unl.edu). The subject line should read 'Population Biology Post-doc application'. Applications should be received by December 14, 2018. The expected salary will be \$45,000 per year. We anticipate notifying the successful applicant by January 31, 2019, with a starting date of September 1 or later in 2019. We strongly encourage applications from women and members of minority groups. The University of Nebraska is committed to a pluralistic campus community through affirmative action, equal opportunity, work-life balance, and dual careers. We assure responsible accommodation under the Americans with Disabilities Act.

Colin Meiklejohn <[cmeiklejohn2@unl.edu](mailto:cmeiklejohn2@unl.edu)>

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## UNevada Reno BioinformaticsGenomics

POSTDOCTORAL POSITION IN BIOINFORMATICS AND GENOME EVOLUTION AT THE UNIVERSITY OF NEVADA, RENO

The Alvarez-Ponce lab at the University of Nevada, Reno invites applications for a postdoctoral position in Molecular Evolution. As part of a NSF-funded project, the successful candidate will investigate how protein evolution is shaped by different factors, in collaboration with the groups of David Liberles (Temple University)

and Krisztina Varga (University of New Hampshire).

The successful candidate will have: - A PhD in Biology, Computer Science or a related field. - A strong interest in Molecular Evolution. - Experience with bioinformatics analyses, including programming in any scripting language (e.g. PERL or Python). - Evidence of excellence in research and high productivity. - Good communication and interpersonal skills.

Experience in the following areas would be a plus: - Molecular evolution analyses, and in particular natural selection analyses. - Network analyses. - Computer simulations. - Next Generation Sequencing.

Candidates should e-mail the following information to Dr. David Alvarez-Ponce ([dap@unr.edu](mailto:dap@unr.edu)) as a single PDF: - An application letter, addressing the applicant's motivation for the position, and how their experience and skills fulfill the requirements listed above. - A full CV. - Contact information for 2 or 3 potential references.

More information about the lab can be found at [www.genomeevol.wordpress.com](http://www.genomeevol.wordpress.com) The University of Nevada, Reno is a Tier I institution offering a highly productive research environment, including outstanding core facilities in genomics and bioinformatics. The Biology Department has a growing and highly interactive evolutionary genomics research community. Reno is located in the Sierra Nevada mountains near Lake Tahoe, and has been recently rated as one of the best small cities in the US for outdoor recreation and overall quality of life.

Please circulate this post among suitable candidates.

- David Alvarez-Ponce, PhD Assistant Professor Department of Biology University of Nevada, Reno Max Fleischmann Agriculture Building, office 140B Tel.: (775) 682-5735 [www.genomeevol.wordpress.com](http://www.genomeevol.wordpress.com) [david.alvarez.ponce@gmail.com](mailto:david.alvarez.ponce@gmail.com)

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## UNewHampshire GenomicsBioinformatics

Postdoctoral Researcher - Ecological Genomics & Bioinformatics

University of New Hampshire

A postdoctoral position in Ecological Genomics & Bioinformatics is available at the University of New Hampshire, as part of a large, collaborative NSF-funded EP-SCoR Track-2FEC research and training program in

the genomic ecology of coastal organisms and genome-phenome relationships in the wild. The postdoctoral scientist will conduct assembly of genomes and transcriptomes and analysis of genomic and transcriptomic data to identify signatures of selection and the genomic architecture of adaptation in a tidal marsh bird study system.

The work will be conducted in Adrienne Kovach's lab at the University of New Hampshire, in close collaboration with Kelley Thomas of the UNH Hubbard Center for Genome Studies and Benjamin King at the University of Maine. The postdoc will also work in collaboration with a diverse team of investigators, graduate students, and undergraduate students at the Universities of New Hampshire and Maine studying the ecological genomics and eco-evolutionary feedbacks of adaptation in tidal marsh birds. Because of the highly collaborative nature of this project, there will be opportunities for the postdoc to travel between the two institutions and to gain mentorship from faculty at both institutions.

The successful candidate must have a strong background in evolutionary ecology, population genetics, genomics and bioinformatics, with preference to those with project-relevant experiences and interest (e.g., avian systems, natural populations, coastal systems, adaptation to environmental gradients). Desired computational skills include data processing in a command-line environment and programming in at least one scripting language (e.g., R, Python). Additional desired qualifications include laboratory bench skills, quantitative skills and excellent communication and writing skills. Consistent with our program scope, we are especially interested in candidates who show promise to engage intellectually across the diverse scales of genomes, phenomes, and environmental feedbacks, to advance a more integrated understanding of adaptation in nature. We are also seeking a candidate who will engage collaboratively with team members and participate in broader programmatic activities, including mentoring of junior researchers. In turn, the postdoc will receive extensive mentoring, career development training, and professional opportunities, in alignment with a personal career development plan.

Start Date: January 2019

Terms of employment: Salary of \$48,000, health insurance, and other benefits are included. The position is for an initial 2-year period, with the potential for extension if deemed appropriate. Applicants must have completed all Ph.D. degree requirements prior to the start of the appointment

Application: submit names and contact information for three references, a CV, and a 2-page statement of your research experience and interests. The statement

should further address how this position would advance your career goals and describe your experiences with and vision for collaborative science, including your commitment to diversity and inclusion. To apply, send the requested materials to Dr. Adrienne Kovach at the University of New Hampshire at [akovach@unh.edu](mailto:akovach@unh.edu). Review of applications will begin November 1, 2018. Remote (e.g., phone or Zoom) and an on-campus interview and presentation will be required of short-listed finalists.

The University of New Hampshire and the Department of Natural Resources and the Environment are home to a vibrant community of productive researchers with a strong commitment to student success (see <http://www.unh.edu/unhtoday/2017/03/excellence-ecology> for recent accolades). Located in the town of Durham, UNH is a beautiful campus surrounded by forest and natural landscapes. Only 30 minutes from the sea and less than 2 hours from the White Mountains, outdoor and other recreational activities abound, including right on campus.

The University of New Hampshire is a public institution with a long-standing commitment to equal opportunity for all. It is an EEO/AA employer and does not discriminate on the basis of race, color, religion, sex, national origin, age, veteran's status, gender identity or expression, sexual orientation, marital status, or disability in admission or access to, or treatment or employment in, its programs, services, or activities. Please contact the Affirmative Action and Equity Office, Thompson Hall 305, 105 Main Street, Durham, NH 03824-3547 at 603-862-2930 (voice), TTY: (603) 862-1527 - Relay NH: 7-1-1, or [affirmaction.equity@unh.edu](mailto:affirmaction.equity@unh.edu) with questions or concerns.

"Kovach, Adrienne" <[Adrienne.Kovach@unh.edu](mailto:Adrienne.Kovach@unh.edu)>

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## Univ Vermont MolecularEvolution

A postdoctoral position is available in the Lockwood Lab at the University of Vermont to participate in a set of NSF-funded projects to examine molecular evolution in the context of thermal adaptation in *Drosophila*\*. The overarching goal of this work is to use biophysical models to predict protein structure-function relationships that impact fitness. The postdoc will use an integrative approach and combine techniques in protein biochemistry and molecular genetics. The postdoc will join a multi-investigator collaborative team with complementary expertise in protein biophysical mod-

eling, population genetics, and protein biochemistry, including Marty Ytreberg (Univ. of Idaho), Dan Weinreich (Brown Univ.), Craig Miller (Univ. Idaho), and Brandon Ogbunugafor (Brown Univ.).

The successful candidate will have a strong research record in evolutionary genetics and/or biochemistry and a strong interest in ecological physiology, as well as a background in computational and statistical analysis.

The Biology Department at the University of Vermont is a research-intensive integrative department, with internationally-recognized faculty conducting both theoretical and empirical research in disciplines from cells to ecosystems. Founded in 1791, UVM is consistently ranked as one of the top public universities in the United States. The University is located in Burlington, Vermont, a vibrant and environmentally-minded small city rich in cultural and recreational activities for members of the research community and their families.

Support (salary and benefits) is available for up to 3 years; the initial appointment is for one year with the opportunity to extend to additional years pending performance.

To apply, please send an email to Brent Lockwood (Brent.Lockwood@uvm.edu) with a single PDF document with cover letter, statement of research interests, CV, and contact information for three references. Review of applications will begin immediately and continue until the position is filled. The start date is flexible, but the position can start immediately.

Lockwood Lab Website: <https://www.uvm.edu/~bblockwo/> "Brent.Lockwood@uvm.edu"  
<Brent.Lockwood@uvm.edu>

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## UOulu InsectMolecularSystematics

The following full-time jobs are open in the Insect Genomic Systematics Group (<https://insgensyst.wordpress.com/>) at the University of Oulu, Finland:

1. Post-doctoral Researcher (3 years)
2. PhD student (3 years and 8 months)

In this project, genomic tools, particularly anchored hybrid enrichment (AHE) method, will be applied to develop novel approaches to define species boundaries under different evolutionary circumstances and with taxonomically challenging groups of insects.

For more information, go to:

[https://rekry.saima.fi/certiahome/-open\\_job\\_view.html?did=5600&jc=1&id=00006271&lang=en](https://rekry.saima.fi/certiahome/-open_job_view.html?did=5600&jc=1&id=00006271&lang=en)

Application deadline is 1 November 2018. The earliest start date is 1 January 2019.

Only online applications will be considered. Other inquiries to:

Marko Mutanen marko.mutanen@oulu.fi

Marko Mutanen <Marko.Mutanen@oulu.fi>

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## UOxford VirusEvolution

Postdoc on the evolution of chronic viral infections

We are advertising for a 3-year postdoc to work on the evolution of chronic viral infections (e.g. HIV, HCV, HBV), with the specific aim of linking within- and between-host levels of evolution. If you are interested in viruses, like thinking about evolutionary problems, and enjoy maths or programming, this could be for you. You will join Dr Katrina Lythgoe's Evolution of Viral Infections Research group at the Big Data Institute, University of Oxford, whose members collaborate closely with the Pathogen Dynamics Research Group led by Prof Christophe Fraser.

Depending on your strengths and interests, you will develop within-host models of viral evolution that can be tested using within-host sequencing data, and/or develop new mathematical modelling frameworks describing viral evolution across multiple scales (within- and between-hosts) that can be used to generate testable predictions. We are looking to appoint at either Junior or Senior postdoctoral levels, and although we have some projects in mind, there is flexibility over the specific project and methods to be used (e.g. mathematical modelling, evolutionary analysis of sequencing data, etc). Please contact Katrina Lythgoe if you would like more information.

The closing date for applications is 12.00 noon GMT on 25 October 2018, and you find a full job description and apply here:

[https://www.recruit.ox.ac.uk/pls/hrsliverecruit/-erq\\_jobspec\\_details\\_form.jobspec?p\\_id=135559](https://www.recruit.ox.ac.uk/pls/hrsliverecruit/-erq_jobspec_details_form.jobspec?p_id=135559)

Dr Katrina Lythgoe Group Leader and Sir Henry Dale Fellow Big Data Institute | University of Oxford [katrina.lythgoe@bdi.ox.ac.uk](mailto:katrina.lythgoe@bdi.ox.ac.uk) |

[www.bdi.ox.ac.uk/Team/katrina-lythgoe](http://www.bdi.ox.ac.uk/Team/katrina-lythgoe) Katrina Lythgoe <[katrina.lythgoe@bdi.ox.ac.uk](mailto:katrina.lythgoe@bdi.ox.ac.uk)>

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## UPennsylvania CulturalEvolution

Post-doctoral positions in Cultural Evolution and Collective Behavior at Penn

Joshua Plotkin's laboratory at the University of Pennsylvania seeks one or two postdoctoral researchers to join a vibrant group of scientists with diverse backgrounds who share common interests in evolutionary theory.

We seek individuals with strong intellectual motivations of their own. We are especially interested in scientists who use mathematical models and statistical inference to study the forces that shape human cultural evolution and collective behavior.

Areas of interest and application range from the emergence of coalitions, the origins of ideological polarization, the dynamics of social norms, the evolution of communication systems, and the spread of (mis)information. Familiarity with some body of mathematical modeling (eg game theory, population genetics, dynamical systems) is required; and computational skills (Monte Carlo simulations, scientific computation, analysis of linguistic corpora, time-series of cultural traits, or social-media datasets) are a plus. Communication and writing skills are also highly valued.

These positions include opportunities for funded collaborations with experimentalists using economic games for the empirical study of collective behavior. Funds for conference travel and visits with collaborators will be available to the fellow, as well as many opportunities for collaboration in the Penn community. Post-docs will also have the opportunity to help mentor undergraduate and graduate students in the lab.

Individuals with a Ph.D., or those expecting to complete their Ph.D. by January 2019, are encouraged to apply. Applications will be reviewed on a rolling basis. Please send CV, statement of interests, two papers (published or pre-prints), and two reference letters to [jplotkin@sas.upenn.edu](mailto:jplotkin@sas.upenn.edu). Also visit <http://mathbio.sas.upenn.edu> University of Pennsylvania is an EOE/Affirmative Action Employer. Female, under-represented minority and LGBT candidates are particularly encouraged to apply.

"Plotkin, Joshua B" <[jplotkin@sas.upenn.edu](mailto:jplotkin@sas.upenn.edu)>

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## UPittsburgh EvolutionAntibioticResistance

POSTDOC: Evolution of resistance to multiple antibiotics (University of Pittsburgh)

The Wright Lab (<http://wrightlabscience.com>) is seeking an enthusiastic postdoctoral associate to lead a project aimed at harnessing higher-order synergy among antibiotics to mitigate the acquisition of multi-drug resistance in human pathogens. The successful candidate will measure interactions among many drugs before and after evolving bacteria in the laboratory. The project will involve combining multiple technologies, including robotics and genome sequencing, to elucidate how synergies among antibiotics constrain the evolution of resistance. This NIH funded research provides the opportunity to develop innovative approaches to combating multi-drug resistance in the clinic.

The Wright Lab is a rapidly growing multi-disciplinary hybrid wet/dry lab at the University of Pittsburgh. We are affiliated with the Department of Biomedical Informatics, and collaborate closely with other experimental evolution and microbiology labs on campus. Our lab offers opportunities to gain experience giving presentations, programming, lecturing, mentoring students, and writing proposals and papers. We are part of a broader effort to make the University of Pittsburgh a leader in applying evolution to the improvement of medicine. The university consistently ranks in the top 10 nationally for biomedical research funding. Pittsburgh, PA is often voted the most livable city in the US featuring eclectic neighborhoods, diverse culinary and entertainment opportunities, as well as easy access to natural areas (<http://www.coolpgh.pitt.edu/>).

QUALIFICATIONS: Qualifications for this position include a PhD in microbiology, evolutionary biology, or a related field. Ideal candidates would have publications demonstrating experience with large-scale experiments, laboratory microbiology, and/or analyzing genomes. The candidate should 1) be fluent in written and spoken English, 2) be able to work independently and as a member of a team, 3) be hard-working, motivated, and eager to learn, and 4) be interested in developing a career researching antibiotic resistance.

TO APPLY: Please email applications (including cover letter, curriculum vitae, & names and email addresses for 3 professional references) to Dr. Erik Wright



(eswright@pitt.edu). The position is available starting as early as November 2018 for an initial appointment of 1 year, renewable contingent upon satisfactory performance. Salary is commensurate with experience and includes a comprehensive benefits package. Review of applications will begin immediately and continue until the position is filled.

Erik Wright Assistant Professor Department of Biomedical Informatics School of Medicine, University of Pittsburgh Pittsburgh, PA (412) 383-4458 <http://www.dbmi.pitt.edu/person/erik-s-wright-phd-ms> “Wright, Erik Scott” <ESWRIGHT@pitt.edu>

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## USouthFlorida ComparativeImmunology

The Martin (<https://organismalbiology.weebly.com>) and Jiang labs (<https://health.usf.edu/publichealth/gh/ghidr/genomics/researchers/rays-jiang>) at the University of South Florida are seeking to hire 1 postdoctoral scholar to perform comparative ecological immunology work. The individual will work on an NSF-funded research project, in collaboration with the Downs lab at Hamilton College (<https://sites.google.com/site/cynthiajdowns/home>) investigating how the architecture of the immune system is affected by body mass across terrestrial vertebrates in the College of Public Health. Successful candidates will be part of interdisciplinary programs focusing investigating how body size constrains microbial killing responses and the inflammatory response across terrestrial vertebrates. Projects will involve managing student technicians, performing microbiocidal assays, and analyzing data from the microbiocidal assay using techniques and a management system already in place. During the second stage, the post-doc will help conduct a transcriptomics study of induced immune responses in primate blood, which will involve computational analysis, integration and modeling of large-scale data sets.

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. In addition to the above projects,, the post-doc will also be able to ask questions within the larger study framework. The post-doc will be located at University of South Florida but will also travel occasionally to Hamilton College to work with undergraduate researchers and travel to primate

research facilities to collect blood samples.

Candidates must have a PhD or equivalent degree in a degree related to integrative organismal biology, and should have experience working with large biological data sets, particularly transcriptomics data.

Preferred Qualifications: Proficient in Program R particularly for comparative analyses, experience with transcriptomics methods, and experience with benchwork in ecoimmunology. Record of academic and research achievements. Candidates must be highly motivated, think independently and work as part of integrated multidisciplinary research teams. Candidates must be willing to travel for sample collection.

To apply: Complete an online application. Visit <http://employment.usf.edu> and search for Job ID 18722. Applicants should submit a current curriculum vitae and cover letter. Application review will begin on November 15, 2018, and will continue until the position is 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>

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## USouthFlorida-Tampa HumanPopulationGenetics

Postdoctoral Fellow - Inferring demographic history of human populations. A postdoctoral fellow position in computational population genomics is available at Liu Lab ([www.liulab.science](http://www.liulab.science)) at the University of South Florida, Tampa, USA, from October 2018. The postdoctoral fellow will engage in method development and application related to inferring population demographic history using large-scale DNA sequence data (see references below). A graduate level training in population genetics or molecular evolution is required. Previous experience in methodology development and/or Java programming experience is preferred. Contact: Xiaoming Liu ([xiaomingliu@helath.usf.edu](mailto:xiaomingliu@helath.usf.edu)). Reference: Liu X and Fu YX. (2015) Exploring population size changes using SNP frequency spectra. *Nature Genetics*. 47(5):555-559.

[xiaoming.liu@uth.tmc.edu](mailto:xiaoming.liu@uth.tmc.edu)

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## UStockholm YeastExperimentalEvolution

2 postdoctoral positions in Experimental Evolution with Yeast at Stockholm University, Sweden

Start date: January 2019 or later Application date: November 15 2018

The Stelkens lab is looking for 2 postdocs who will use the budding yeast *Saccharomyces cerevisiae* (and its relatives) to study evolutionary processes using experimental evolution and genome sequencing. Current research in the lab focuses on 1) the dynamics of adaptation to rapidly changing and stressful environments, and 2) the effects of genetic exchange and hybridization between divergent lineages on rates and mechanisms of adaptation/reproductive isolation. The postdoc is free to design their own projects as long as these conceptually overlap with existing research interests of the lab.

**Qualifications:** We are looking for people with strong quantitative skills and a keen interest in evolution. You should have a firm understanding of the principles of population and quantitative genetics and a publication record commensurate with your career stage and experience. Ideally, you have experience with experimental evolution, molecular genetics and genomics. Prior training in yeast cultivation is highly desirable. Experience in bioinformatics will be an advantage. Candidates should be well-organized, good communicators, and happy to work in a team as well as independently to contribute to an enthusiastic working atmosphere. You should have a strong desire to develop a successful and highly productive research career and you are expected to be active in developing the project. Priority will be given to individuals who come with their own exciting research ideas. You must have a PhD in evolutionary biology or a similar subject.

Candidates will benefit from training in a vibrant intellectual department with many opportunities for professional development. You will be part of a large collaborative lab, involving 9 researchers from 6 different countries. The project is funded by a research grant from the Knut and Alice Wallenberg Foundation to Rike Stelkens, with substantial funds for experimenting, sequencing, computing and travel. The positions are for 2 years each with the possibility of extension.

The campus is located four metro stops from the centre of Stockholm, one of the most beautiful and dynamic European cities, surrounded by beautiful nature. The campus is home to a vibrant scientific community, including the Science for Life Laboratory (a leading genomics core facility that we routinely use) and the Swedish Museum of Natural History. Sweden is a free and open society, and strives to be one of the world's most innovative and research-positive nations. People here enjoy a respected system of democracy and individual rights, freedom of speech, a free press, and the right to scrutinize those in power. Most Swedes speak English well. Stockholm University strives to be a workplace free from discrimination and with equal opportunities for all.

To begin the application process, contact me at [rike.stelkens@zoologi.su.se](mailto:rike.stelkens@zoologi.su.se), including a brief description of your research interests and experience, as well as a current CV. Closing date for applications is 15 November 2018. Interviews will take place on Skype. Following that, shortlisted candidates may be invited to visit the department to meet with colleagues and present their work.

**Relevant references:** Stelkens and Greig (2016) Fungal evolution: On the origin of yeast species. *Nature Microbiology*, 1: 15017

Stelkens, Brockhurst, Hurst, and Greig, (2014) Hybridization facilitates evolutionary rescue. *Evolutionary Applications*, 7: 12091217

Stelkens, Brockhurst, Hurst, Miller, and Greig, (2014). The effect of hybrid transgression on environmental tolerance in experimental yeast crosses. *Journal of Evolutionary Biology*, 27: 2507-2519

[stelkenslab.com](http://stelkenslab.com)

Rike Stelkens Assistant Professor Division of Population Genetics Department of Zoology Stockholm University, Sweden

email: [rike.stelkens@zoologi.su.se](mailto:rike.stelkens@zoologi.su.se) tel: +46 (0) 816 4223  
lab website: [stelkenslab.com](http://stelkenslab.com)

Rike Stelkens <[rike.stelkens@zoologi.su.se](mailto:rike.stelkens@zoologi.su.se)>

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## UUM WildlifeGeneticDiversity

The Institute of Evolutionary Ecology and Conservation Genomics / University of Ulm invites applications for a Scientific Assistant / Postdoctoral research position in Wildlife Immunogenetics

Applications are invited for a 2-year scientific assistant / postdoc position (with the possibility of a 4-year extension according to the Act of Academic Fixed-Term Contract, so called Wissenschaftszeitvertragsgesetz). We are interested in the relationships between land-use changes, wildlife genome-wide and immune genetic diversity, host's microbiome, and viral, bacterial and helminthic co-infections. We offer a very stimulating, multi-national research community with excellent infrastructure.

The focus of this position should be on investigating the role of immune gene diversity (MHC) and wildlife genomics in pathogen resistance and sexual selection. We are looking for a skilled, creative and highly-motivated postdoc who is able to work independently and in a team. The position requires social, teaching, organizational and time-management skills. Good knowledge of the German language is required for undergraduate teaching, as well as a high standard of spoken English and manuscript writing proficiency. The candidate should be willing to support teaching and supervising undergraduate and PhD students' projects as well as developing and performing own research. Candidates should hold a completed doctoral degree and have a strong background in evolutionary ecology, population genetics and MHC research, and should be qualified by a very good publication record. The scientific assistant is expected to develop his or her own research agenda while also significantly contributing to the bioinformatic processing and statistical analyses of large data sets obtained by next-generation sequencing in ongoing projects of the department. Thus, practical experience with NGS technologies and platforms (e.g. IlluminaC), with the Linux/Unix environment, scripting languages such as Python or Pearl, database design and querying (SQL), R-programming, as well as multivariate modelling and statistics are required.

Please send your application as a single (!) pdf file to Prof. Dr. Simone Sommer (simone.sommer@uni-ulm.de). The pdf must include a letter describing your

past research experience and particular skills and motivation for this position (max. 2 pages), an outline of planned own future projects (max. 2 pages), a CV, a summary of the PhD thesis, 2-3 letters of recommendation or contact details of referees and your publication list. The candidates will be selected according to their scientific qualification and proposed project plan. The anticipated starting date is January 2019.

The position is open until filled, and applications will be reviewed continuously, but for full consideration please apply by November 18th 2018. Remuneration is in accordance with TV-L 13 (100%). The applicants assessed as the best qualified will be called to an interview, which might be carried out online. Physically disabled applicants receive favorable consideration when equally qualified. Job sharing is always possible for full time positions. The University of Ulm is committed to increase the share of women and teaching positions and therefore explicitly encourages female candidates to apply. The appointment is made by the Central University Administration. Please indicate the index number 123. "Prof. Dr. Simone Sommer" <simone.sommer@uni-ulm.de>

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## UVermont EvolutionOfEpigenetics

Post-doctoral Research Associate - Epigenetics of thermal plasticity in *Drosophila*

A post-doctoral position is available in the Helms Cahan lab at the University of Vermont to join a new NSF/EPSCoR-funded project on epigenetic regulation of thermal plasticity in *Drosophila*. The overarching goals of the project are to characterize and test molecular mechanisms driving plastic adjustment of upper and lower thermal limits occurring across a range of timescales, from developmental acclimation to rapid hardening, and role of shifts in epigenetic drivers in the process of thermal adaptation within and among species across the genus. The post-doctoral associate will use cutting-edge approaches in high-throughput sequencing and bioinformatic network analysis to identify putative epigenetic regulators in *D. melanogaster* and experimentally test their roles using functional genetic techniques. The successful candidate will join a multi-investigator collaborative team with complementary expertise in epigenomics and systems biology (Seth Fretze, UVM), biochemical adaptation and thermal physiology (Nick Teets, UKY and Brent Lockwood, UVM), insect respira-

tory physiology (James Waters, Providence College) and phylogeography (Heather Axen, Salve Regina Univ.). There will be plenty of opportunities for additional self-designed projects in the candidate's area of interest.

The Biology Department at the University of Vermont is a research-intensive integrative department, with internationally-recognized faculty conducting both theoretical and empirical research in disciplines from cells to ecosystems. The department has a vibrant PhD program and is dedicated to a teacher-scholar model of engaging undergraduates in the research enterprise. Founded in 1791, UVM is consistently ranked as one of the top public universities in the United States. The University is located in Burlington, Vermont, a vibrant and environmentally-minded small city rich in cultural and recreational activities for graduate students and their families.

Applicants for the position should have a strong interest in evolutionary genetics and a PhD in a relevant discipline. Familiarity with high-throughput genomics benchwork and/or bioinformatics, and prior experience working with *Drosophila* or other insects, are desirable. The position is available beginning January 1 for two years, with the possibility of renewal. Our team is dedicated to promoting diversity of experience and perspective in the scientific enterprise; we encourage applicants from under-represented groups to apply. To apply, please send a cover letter detailing your interest and qualifications for the position, a current CV, and the names and e-mail addresses of two potential references to Sara Helms Cahan ([scahan@uvm.edu](mailto:scahan@uvm.edu)). We will begin reviewing applications November 1st until the position is filled.

To find out more about research in the Helms Cahan lab, go to: <https://www.uvm.edu/cas/biology/profiles/-sara-helms-cahan> To find out more about the Biology Department, go to: <https://www.uvm.edu/cas/biology> Sara Helms Cahan Associate Professor and Chair Department of Biology University of Vermont Burlington, Vermont 05405 (802)656-2962 [scahan@uvm.edu](mailto:scahan@uvm.edu)

Sara Cahan <[scahan@uvm.edu](mailto:scahan@uvm.edu)>

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## UZurich EvolutionaryEcol

Postdoc position in Evolutionary Ecology

On: Theory of sexual and asexual reproduction in the context of ontogeny and senescence

at the University of Zurich, Switzerland

A postdoctoral position in evolutionary ecology, of 36 months duration, is available at the University of Zurich working with Prof Hanna Kokko and her international team [www.kokkonuts.org](http://www.kokkonuts.org). This position is funded through the Swiss National Science Foundation.

We are a team that places a lot of emphasis on creating theoretical work that integrates well with empirical findings. We work on life history theory (and data), interpreted in a very broad sense: examples include life histories of modular organisms, facultative sex, spatial evolution, and sexual dimorphism in a broad sense (including e.g. dispersal polymorphisms). The most up to date version of our current interests can be best described by the list of journal club articles that we discuss each week ([www.kokkonuts.org](http://www.kokkonuts.org), click on journal club'). This implicitly defines our current interests, and applicants will quickly notice that they are broad. Indeed, this matches the breadth of the advertised topic: within it, the applicant could emphasize either genetic or demographic factors, or unicellular/multicellular angles to understand questions such as 'when does life choose mitosis, when on the other hand is meiosis the way to go, and what are the implications for the evolution of generation time?' There is great flexibility within this broad framework to identify the most interesting questions.

The working language in the group is English (German skills are not essential). The position is available from January 1st, 2019 onwards. The evaluation of applications begins on November 1st, 2018, and will continue until a suitable candidate has been found.

Applicants should send a cover letter with a

- Statement of their research interests, in relation to the topic (and potentially journal club articles as mentioned above)
- C.V. (including publication list), and
- The names and contact details of at least one referee.

Applications should form a single pdf file and this should be sent to: [hanna.kokko@ieu.uzh.ch](mailto:hanna.kokko@ieu.uzh.ch)

Petra Zehetmaier Administrative Assistant Prof. Dr. Hanna Kokko

Department of Evolutionary Biology and Environmental Studies University of Zurich Winterthurerstr. 190 8057 Zurich

Tel.: +41 (0) 44 635 47 61 Email: [petra.zehetmaier@ieu.uzh.ch](mailto:petra.zehetmaier@ieu.uzh.ch) Office: Y13-H-83

Petra Zehetmaier <[petra.zehetmaier@ieu.uzh.ch](mailto:petra.zehetmaier@ieu.uzh.ch)>

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**VetMedU Vienna Austria  
Evolutionary Anthro**

Postdoctoral position for field-based project in biological anthropology

A postdoctoral research position is available for an FWF (Austrian Science Fund) funded project on exploring food material properties and jaw loading in lemurs. The project will entail detailed feeding observations in two lemur species and mechanical property testing of their diets at a field site in southwestern Madagascar. The total duration of the field work for the project is two years. Length and timing of the field seasons will be determined in consultation with the postdoc.

Prior fieldwork experience in wildlife biology/primatology and a good sense of humor are required. Knowledge of mechanical testing, a strong background in statistics (preferably in R), and spoken French are highly desirable. The PI also appreciates individual initiative and an open and curious mind.

In addition to data collection, the postdoc will help to coordinate the research team, consisting of students, volunteers, and local experts, and assist with data analysis and writing.

The project is based at the University of Veterinary Medicine, Vienna in Austria. Salary is internationally competitive as set by the Austrian Science Fund. To apply, please send an application letter detailing research background and interests, CV, and names and addresses of three references to Nayuta Yamashita (Nayuta.Yamashita@vetmeduni.ac.at). Review of applications will begin immediately and continue until the position is filled. The anticipated start date of the project is February 2019.

Vetmeduni Vienna Veterinärplatz 1 1210 Wien Austria/Europe

Nayuta Yamashita <nayuta2009@gmail.com>

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**WashingtonU Biodiversity**

Biodiversity Postdoctoral Fellowships at the Living Earth Collaborative

The Living Earth Collaborative, a partnership between Washington University, the Missouri Botanical Garden and the Saint Louis Zoo, was established to advance knowledge and protection of the world's biodiversity by supporting collaborative research and conservation efforts involving individuals from the three partner and other Saint Louis institutions. See <https://livingearthcollaborative.wustl.edu/> for more information on the Collaborative including a list of recently-funded projects. As part of this effort, the Collaborative is pleased to announce the availability of three postdoctoral fellowships in the area of biodiversity research and conservation. Fellowships will be two years long, subject to review after the first year, with a starting date beginning July 1 - September 1, 2019. Salary will be \$57,000 plus benefits, in addition to \$6,000 per year for research support.

LEC Postdoctoral Fellows will be an essential part of the Living Earth Collaborative and are expected to develop an independent research or conservation program that engages with multiple members of the Living Earth Collaborative Community—projects that involve LEC Biodiversity Fellows (<https://livingearthcollaborative.wustl.edu/about-us/researchers/>) from at least two of the partner institutions, one partner institution and Saint Louis University, or two departments at Washington University are particularly encouraged. In addition, fellows are expected to be an integral part of the Living Earth Collaborative by participating in and organizing events and interacting with the diverse LEC community. Applicants are encouraged to contact prospective mentors prior to application.

To apply: Applicants should submit, as a single file, a cover letter, a CV, a description of previous accomplishments (ca. 2 pages), and a description of proposed research/conservation activities (ca. 2 pages), including identification of mentors, who must be LEC Biodiversity Fellows. Documents should be uploaded to <https://jobs.wustl.edu/> specifying job #41661. Applicants should also have three letters of recommendation sent to [livingearth@wustl.edu](mailto:livingearth@wustl.edu). Review of applications will begin December 1<sup>st</sup> and continue until the positions

are filled.

Washington University is an Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, age, sex, sexual orientation, gender identity or expression, national origin, genetic information, disability, or protected veteran status.

Questions should be directed to: [livingearth@wustl.edu](mailto:livingearth@wustl.edu)

Jonathan Losos Director, Living Earth Collaborative  
William H. Danforth Distinguished University Professor  
Department of Biology Campus Box 1137 Washington  
University Saint Louis, MO 63130

“Losos, Jonathan” <[losos@wustl.edu](mailto:losos@wustl.edu)>

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## WashingtonU PhylogeneticModel

Postdoctoral Researcher in Biology at Washington University in St. Louis

A postdoctoral research position is available in the lab of Dr. Michael Landis, located on the Danforth Campus in the Department of Biology at Washington University in St. Louis. The Landis Lab studies problems in phylogenomics, biogeography, and trait evolution by designing statistical models, developing inference methods as software, and applying those methods to selected groups throughout the tree of life. Learn more about the Landis Lab here: <https://landislab.github.io>. The successful candidate will research macroevolutionary questions using quantitative analyses. Several research projects are available in topics including efficient tree estimation using large phylogenomic datasets, divergence time estimation using biogeography and/or fossils, and modeling gene expression evolution. Depending on the specific skills and interests of the selected candidate, the new hire will help tailor the project so it suits their professional and training goals. The researcher will help direct projects, write first author papers, mentor graduate students, receive room to establish intellectual independence, and train new skills (as needed).

Qualifications: Candidates must hold a PhD in biology, bioinformatics, computer science, statistics, or a related field. Applicants must have experience developing or applying the models and methods used in phylogenetics or population genetics. The researcher will develop within the phylogenetics modeling software, RevBayes <https://revbayes.com>, and collaborate with an international team of researchers and developers. Programming ex-

perience is necessary, with preference for C/C++/Java over Python/R.

Employment: The position begins in the summer of 2019 and lasts for two years with the possibility of extension. It is a full-time position (~37.5 hrs/wk) that pays a competitive salary starting at \$48,432 per NIH guidelines <https://www.niaid.nih.gov/grants-contracts/-salary-cap-stipends>. WashU offers outstanding benefits, including health, dental, vision, and life insurance <https://hr.wustl.edu/benefits/postdoctoral/>. St. Louis itself is both an exciting and family friendly city, with affordable housing and excellent access to food, music, art, and public spaces.

Application: To apply, submit (i) your CV, (ii) a 1-2 page cover letter that briefly states your research interests, and (iii) three references through <https://jobs.wustl.edu> to the position with Job ID #41792 (<https://bit.ly/2A2pMgs>). The review of applications will begin on December 1st, 2018 and continue until the position is filled.

WashU is an Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, age, sex, sexual orientation, gender identity or expression, national origin, genetic information, disability, or protected veteran status.

Contact: Please email [michael.landis@wustl.edu](mailto:michael.landis@wustl.edu) with any questions regarding this posting.

Michael Landis Assistant Professor Department of Biology Washington University Saint Louis, MO 63130

[michael.landis@wustl.edu](mailto:michael.landis@wustl.edu)

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## XiamenU FishEvolutionaryGenomics

Postdoctoral Position Available at Xiamen University, Xiamen, China

The research laboratory of Dr. Peng Xu at Department of Marine Biology and Biotechnology, College of Ocean and Earth Sciences, Xiamen University seeks two highly motivated postdoctoral researcher with strong background on evolutionary genomics, population genetics, bioinformatics or genome-scale selective breeding. We are seeking to fill this position immediately.

The successful candidates will contribute to on-going research projects that involve population genomics, poly-

ploidy genome evolution, local adaptation and genetic breeding of multiple fish species. The specific research focuses involve: 1) characterizing and determining the diploid origins of polyploid carp species, investigating subgenome expression bias and dominance and exploring epigenetic regulation mechanisms underlying subgenome divergence. 2) population genomics of Chinese seabass and local adaptation; 3) genome information guided selective breeding on important aquaculture fish species including common carp, yellow croaker and tilapia.

Applicants must have a PhD in Molecular Genetics, Genomics, Bioinformatics, Evolutionary Biology or a relevant subject area. Eligible applicants must have received a PhD within the past 5 years. A strong bioinformatics background is plus. Candidates should have an outstanding academic and publication track record commensurate with their career stage and experience. This position is currently funded for 2 years with the possibility of extension for a total of 3 years. Annual salary is CNY 160,000 ~ CNY 200,000 based on applicant's academic background. Applicants graduated from World Top 100 Universities or universities from

'belt and road' countries will eligible to apply extra scholarship up to 500K.

Other benefits from XMU include

1. XMU will provide two-bedroom apartments or room renting allowance (~ 1000 CNY per month);
2. The children of postdoctors have privilege on XMU affiliated kindergarten and school registration;
3. Postdoctors will be bestowed the titles of Assistant Research Fellow, Associate Research Fellow or Senior Research Fellow during their stay in XMU, and will be encourage to apply research funding from National Scientific Foundation.

Prospective applicants should contact xupeng77@xmu.edu.cn to discuss the project. Please send a CV and letter of interest.

Contact: Dr. Peng Xu, Email: xupeng77@xmu.edu.cn

Where: Zhou Long Quan Building, Xiang'an campus, Xiamen University, Xiamen, Fujian province, 361102, China

Peng Xu <xupeng77@gmail.com>

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## WorkshopsCourses

Arizona Chicago EvolutionBehavior May Jul .....	167	arhps .....	176
Austria SMBEPolygenicAdaptation Feb11-14 .....	167	Montana GenomeAssembly Nov10-11 .....	177
Berlin 16SMicrobialMetabarcoding Apr1-5 .....	168	Portugal EvolutionaryStats Jan28-Feb1 .....	178
Berlin EukaryoticMetabarcoding Mar4-8 .....	169	Portugal Evolution Oct .....	179
Berlin GeneSetPathwayAnalysisInR Mar11-15 ...	170	Portugal GenomeAnnotation Jan14-16 .....	180
Berlin GeometricMorphometrics Mar18-22 .....	170	Portugal IntroToR Dec10-14 .....	181
Berlin PythonDataVisualization Dec10-14 .....	171	Portugal MonitoringBiodiversity Dec18 .....	181
Berlin SpeciationGenomics Dec3-7 .....	172	Portugal Scripting Oct29-31 .....	182
Bodega AppliedPhylogenetics May25-Jun2 .....	173	SanDiego PopConservationGenomics Jan12-16 ...	183
BodegaBay AppliedPhylogenetics May25-Jun2 ...	174	Sydney TamingTheBEAST Feb17-22 .....	183
Cambridge BioinformaticsForBiologists Dec3-7 ...	174	UHuddersfield Leeds .....	184
Crete GeometricMorphometrics Jan28-Feb1 .....	175	UK BioinformaticsForDNARNASeq Oct29-Nov2 .	184
Glasgow Bioinformatics Oct29-Nov2 PartfundedSchol-		UK EvolutionModelling Nov19-23 .....	185

ULisbon IslandBiogeography Jan21-24 .....	186
Venice EvoDevoMechanism Aug26-30 .....	188

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## Arizona Chicago EvolutionBehavior May Jul

Weaving the Future of Animal Behavior A new professional-development opportunity for early-career animal behavior scientists [http://www.animalbehaviorsociety.org/web/embedded/-WFAB\\_Opp.pdf](http://www.animalbehaviorsociety.org/web/embedded/-WFAB_Opp.pdf) Our goal is to advance the future of animal behavior science by supporting and promoting the efforts of early-career professionals through workshops, symposia, and long-term, multi-level mentoring.

May 17-19, 2019 Symposium in Arizona: We begin our initiative with a 2.5-day professional development symposium consisting of panel discussions, activities, and peer mentoring circles. Symposium participants will be early-career animal behavior professionals, including pre-tenure faculty and advanced postdocs. We particularly encourage women and scientists from underrepresented groups in animal behavior to apply. Registration, lodging and travel expenses are covered by an award from the National Science Foundation (IOS-Animal Behavior program #1833455).

July 23-27, 2019 ABS Workshops: With support from the Animal Behavior Society, we will also host 1-day workshops immediately before the ABS meetings, beginning on July 23 at the Behaviour 2019 conference in Chicago. With funding from both the ABS and NSF, we will be offering also travel awards to cover expenses for some participants.

Send questions to: [wfab@animalbehaviorsociety.org](mailto:wfab@animalbehaviorsociety.org)  
Or apply here (due by Dec. 7, 2018): <https://www.research.net/r/WFAB2018>

Emilia Martins <[Emilia.Martins@asu.edu](mailto:Emilia.Martins@asu.edu)>

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## Austria SMBEPolygenicAdaptation Feb11-14

We are delighted to announce that we will have a SMBE satellite meeting 'Towards an integrated concept of adaptation: uniting molecular population genetics and quantitative genetics' 11-14 February 2019 in Vienna, Austria.

This workshop will bring together theoreticians and empiricists, covering both molecular population genetics and quantitative genetics, with the implicit goal to develop the basis for a unified framework of adaptive genetic architectures. The new concept will in turn provide predictions that translate into guidelines for the most informative experimental designs, to uncover underlying adaptive processes.

We will have talks by invited speakers from both theoretical and empirical fields (*Drosophila*, yeast, *Arabidopsis*, human, sticklebacks, domestic animals). We will also have discussions in working groups on development of the new unified concept of adaptive traits and finding new analytical approaches.

Registration: Since the meeting is sponsored by SMBE and Vetmeduni Vienna, we can waive the registration fee for all participants. However, registration is compulsory. Registration deadline: Dec 31, 2018. Note: Please provide your first and last name, affiliation and status (MS/PhD student, postdoc, PI).

Abstract Submission: For contributed talks, submit your 250-words abstract by Oct 31, 2018. The deadline for submission of 250-words abstracts for posters is Dec 31, 2018. Submit your abstract to [smbe.adapt19@gmail.com](mailto:smbe.adapt19@gmail.com) Note: Please provide your first and last name, affiliation and status (MS/PhD student, postdoc, PI).

Please visit <https://www.vetmeduni.ac.at/SMBE-Satellite-Meeting/> for more information. If you have any questions, please email [smbe.adapt.2019@gmail.com](mailto:smbe.adapt.2019@gmail.com)

Neda Barghi ([barghi.neda@gmail.com](mailto:barghi.neda@gmail.com)) On behalf of the organization committee:

Christian Schlötterer ([schlote@gmail.com](mailto:schlote@gmail.com)) Joachim Hermisson ([joachim.hermisson@univie.ac.at](mailto:joachim.hermisson@univie.ac.at)) Ise Höllinger



(ilse.hoellinger@gmail.com)

Neda Barghi <barghi.neda@gmail.com>

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## Berlin 16SMicrobialMetabarcoding Apr1-5

Course: 16 S/ITS Metabarcoding of microbial communities

( <https://www.physalia-courses.org/courses-workshops/-course30/> )

When: 1-5 April 2019

Where: Botanisches Museum, Konigin-Luise-Straße 6-8, Berlin (Germany)

Instructors:

Dr. Antti Karkman (University of Gothenburg, Sweden)

Dr. Anna Sandionigi (University of Milan Bicocca, Italy)

Dr. Bruno Fosso (Institute of Biomembrane, Bioenergetics and Molecular Biotechnologies, CNR, Italy)

Overview

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.

Format

This course is designed for researchers and students with strong interests in applying novel high-throughput DNA sequencing technologies to answer questions in the area of community ecology and biodiversity. The course will mainly focus on the analysis of phylogenetic markers to study bacterial, archaeal and fungal assemblages in the environment, but the theoretical concepts and computational procedures can be equally applied to any

taxonomic group or gene of interest.

Assumed Background

The participants should have some basic background in biology and understand the central role of DNA for biodiversity studies. No programming or scripting expertise is required and some basic introduction to UNIX-based command line applications will be provided on the first day. However, some basic experience with using command line and/or R is clearly an advantage as not all the basics can be thoroughly covered in that short amount of time. All hands-on exercises will be run in UNIX-environments (Linux, Mac) on remote servers. Statistical analyses will be run in R using RStudio.

Learning Outcomes

- 1) Understanding the concept, potential and limitation of microbial metabarcoding techniques.
- 2) Learning how to process raw sequencing reads to obtain meaningful information.
- 3) Obtaining experience on how to statistically evaluate and visualize your data.
- 4) Being able to make informed decisions on best practices for your own data.

For more information about the program, please visit our 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/> )

Best regards,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR  
[info@physalia-courses.org](mailto: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>

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## Berlin Eukaryotic Metabarcoding Mar4-8

Dear all,

registration is now open for the 3rd edition of our “Eukaryotic Metabarcoding” Workshop.

<https://www.physalia-courses.org/courses-workshops/course4/> Berlin, 4-8 March 2019, Berlin (Germany)

Instructors:

Dr. Vasco Elbrecht (University of Guelph, Canada)

Dr. Owen S. Wangensteen (University of Tromsø, Norway)

Course Overview

Metabarcoding techniques are a set of novel genetic tools for qualitatively and quantitatively assessing biodiversity of natural communities. Their potential applications include (but are not limited to) accurate water quality, soil diversity assessment, trophic analyses of digestive contents, diagnosis of health status of fisheries, early detection of non-indigenous species, studies of global ecological patterns and biomonitoring of anthropogenic impacts. 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.

Intended audience

This workshop is mainly aimed at researchers and technical workers with a background in ecology, biodiversity or community biology who want to use molecular tools for biodiversity research and at researchers in other areas of bioinformatics who want to learn ecological applications for biodiversity-assessment. In general, it is suitable for every researcher who wants to join the growing community of metabarcoders worldwide. This workshop

will review mostly techniques and software useful for eukaryotic metabarcoding. Other workshops focused on procedures currently used in microbial metabarcoding will be available from Physalia-courses.

Teaching format

The workshop is delivered over ten half-day sessions (see the detailed curriculum below). Each session consists of roughly a one hour lecture followed by two hours of practical exercises, with breaks at the organizer’s discretion.

Assumed background

No programming or scripting experience is necessary, but some previous expertise using the Linux console and/or R will be most welcome. All examples will be run either in Linux or Mac environments, with some ssh connections to remote servers. For Windows users, a virtual box running Linux under Windows and/or the installation of an ssh client (e.g. PuTTY) will be needed. For MacOSX systems, installation of some additional Python packages might be needed for running the OBITools software suite. The syllabus has been planned for people which have some previous experience running simple commands from a terminal in Linux or Mac and using the R environment (preferently RStudio) for performing basic plots and statistical procedures. You will need to have a laptop with Python 2.7 installed for running OBITools, but no experience with Python is necessary.

For more information about the course, 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/> Best regards,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR  
[info@physalia-courses.org](mailto:info@physalia-courses.org) <http://www.physalia-courses.org/> Twitter: @physacourses mobile: +49 15771084054 <https://groups.google.com/forum/#!forum/physalia-courses> “[info@physalia-courses.org](mailto:info@physalia-courses.org)”  
 <[info@physalia-courses.org](mailto:info@physalia-courses.org)>

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## Berlin GeneSet Pathway Analysis InR Mar11-15

Dear all,

we will run the third edition of our Workshop “Squeezing

biology out of statistics: Gene set and pathway analysis in HT data” from the 11th to the 15th of March 2019.

Our instructor for this course is Dr. January Weiner (Staff Scientist at the Max Planck Institute for Infection Biology, Germany).

This course offers computational techniques that go beyond a simple technical or statistical analysis. It covers techniques for the analysis of gene set enrichments, pathway analysis, gene ontologies, functional analysis of metabolomic profiling and making use of correlations and coexpression networks. A prominent part of the course will be devoted to data visualization and visual data exploration.

The students will gain the ability to independently process and analyse HT data sets, select the appropriate tools, functionally interpret the results as well as learn the paradigms of computational biology and statistics which will allow them to efficiently communicate with computational biologists.

As an incentive, each student will receive a set of gene expression profiles for a different organism, and during the course they will use these to generate species-specific gene expression modules and test their utility. If we are successful, we will attempt a joint publication.

For more information about the course, please visit the course website: [ <https://www.physalia-courses.org/courses-workshops/course32/> ]

Here you can find the complete list of our courses and Workshops: [ <https://www.physalia-courses.org/courses-workshops/> ]

Should you have any questions, please feel free to contact us at: [ [info@physalia-courses.org](mailto:info@physalia-courses.org) ]

Best regards, Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR  
[info@physalia-courses.org](mailto: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](mailto:info@physalia-courses.org)

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## Berlin GeometricMorphometrics Mar18-22

Dear all,

registration is now open for our second edition of the course “Geometric Morphometrics”!

Where: Berlin (Germany)

When: 18th-22nd March 2019

Instructor: Dr. Carmelo Fruciano (ENS, Paris (France))  
<http://bit.ly/2rxQVFC> Overview

Geometric morphometrics has become a standard in biological research because it combines statistical rigour and ease of interpretation. Through geometric morphometrics, biological form is quantified, analysed and the results are expressed as easily interpretable and visually impactful shape changes. This course covers the main common practices of modern geometric morphometrics, including: acquiring data, analysing it, visualizing and interpreting the results.

Format

The course will be delivered over five days and will comprise both lectures and hands-on sessions. The lectures will cover both basic theoretical aspects and their practical implementation in research practice and software. During the hands-on sessions, the attendees will have the chance of both using example datasets and applying the knowledge acquired to their own data. The course will be focused mainly on 2D data and on easy-to-use software with graphical user interface to maximize the ability to understand concepts and apply them. However, some information on 3D data and on R implementations will be provided, as appropriate.

Assumed Background

This course is aimed at beginners and intermediate users. In other words, it is aimed at researchers who intend to use geometric morphometrics or who have started performing geometric morphometric analyses but feel they need a more structured background.

Requirements

Attendees should have a background in biology and a basic understanding of statistical concepts.

Session content

Day1

Geometric morphometrics: overview and potential applications: - Traditional and geometric morphometrics - An overview of common analyses - Examples of geometric morphometrics applied to biological problems

>From biological objects to numerical representation: - Overview of typical devices used to digitalise biological objects - Landmarks, semilandmarks, outlines and surfaces - different types of geometric morphometric data - Most commonly used geometric morphometric software - Data quality, most common pitfalls in study design and data acquisition

## Day 2

Generalized Procrustes analysis (GPA) the core of most geometric morphometrics: Principal component analysis (PCA) Comparing groups: - Between-group PCA - Canonical variate analysis (CVA) - Tests of difference in means

## Day 3

Co-variation between size and shape: - Allometry, regression and general linear models

Co-variation between shapes: - Partial least squares analysis (PLS) - Modularity and integration

## Day 4

Combining analyses in a basic workflow: - Preliminary assessment of data quality - Typical basic workflow

Expanding the basic workflow: variation in geographic space Expanding the basic workflow: association between shape and environmental variables

## Day 5

Expanding the basic workflow: elements of phylogenetic comparative analyses Review and open discussion Presentation of attendees' analyses on their own data

For more information about the course, please visit our website: <https://www.physalia-courses.org/courses-workshops/course22/> Here is the full list of our courses and Workshops: <https://www.physalia-courses.org/courses-workshops/> Best regards,

Physalia-course team

info@physalia-courses.org

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## Berlin PythonDataVisualization Dec10-14

Course: Data Manipulation and Visualization with Python

Berlin, 10th-14th December 2018

( <https://www.physalia-courses.org/courses-workshops/course38/> )

INSTRUCTOR:

DR. Martin Jones (founder, Python for biologists: ( <https://bit.ly/2ycQ25u> ) )

This course focusses on using Python's scientific software libraries to manipulate and visualise large datasets.

It's intended for researchers with a basic knowledge of Python who need to explore large datasets and quickly visualise patterns and relationships.

This course is aimed at researchers and technical workers with a background in biology and a basic knowledge of Python (if you've taken the Introductory Python course then you have the Python knowledge; if you're not sure whether you know enough Python to benefit from this course then just drop us an email).

Students should have enough biological/bioinformatics background to appreciate the example datasets. They should also have some basic Python experience (the Introduction to Python course will fulfill these requirements). Students should be familiar with the use of lists, loops, functions and conditions in Python and have written at least a few small programs from scratch. Students will require the scientific Python stack to be installed on their laptops before attending; instructions for this will be sent out prior to the course.

Detailed syllabus

### 1. Introduction and datasets

Jupyter (formerly iPython) is a programming environment that is rapidly becoming the de facto standard for scientific data analysis. In this session we'll learn why Jupyter is so useful, covering its ability to mix notes and code, to render inline plots, charts and tables, to use custom styles and to create polished web pages. We'll also take a look at the datasets that we'll be investigating during the course and discuss the different types of data we encounter in bioinformatics work.

### 2. Introduction to pandas

In this session we introduce the first part of the scientific Python stack: the pandas data manipulation package. We'll learn about Dataframes 'X' the core data structure that much of the rest of the course will rely on 'X' and how they allow us to quickly select, sort, filter and summarize large datasets. We'll also see how to extend existing Dataframes by writing functions to create new columns, as well as how to deal with common problems like missing or inconsistent values in datasets. We'll get our first look at data visualisation by using pandas' built in plotting ability to investigate basic properties of our datasets.

### 3. Grouping and pivoting with pandas

This session continues our look at pandas with advanced uses of Dataframes that allow us to answer more complicated questions. We'll look two very powerful tools: grouping, which allows us to aggregate information in datasets, and pivoting/stacking, which allows us to flexibly rearrange data (a key step in preparing datasets

for visualisation). In this session we'll also go into more detail about pandas indexing system.

#### 4. Advanced manipulation with pandas

In this final session on the pandas library we'll look at a few common types of data manipulation 'X binning data (very useful for working with time series), carrying out principal component analysis, and creating networks. We'll also cover some features of pandas designed for working with specific types of data like timestamps and ordered categories.

#### 5. Introduction to seaborn

This session introduces the seaborn charting library by showing how we can use it to investigate relationships between different variables in our datasets. Initially we concentrate on showing distributions with histograms, scatter plots and regressions, as well as a few more exotic chart types like hexbins and KDE plots. We also cover heatmaps, in particular looking at how they lend themselves to displaying the type of aggregate data that we can generate with pandas.

#### 6. Categories in seaborn

This session is devoted to seaborn's primary use case: visualising relationships across multiple categories in complex datasets. We see how we can use colour and shape to distinguish categories in single plots, and how these features work together with the pandas tools we have already seen to allow us to very quickly explore a dataset. We continue by using seaborn to build small multiple or facet plots, separating categories by rows and columns. Finally, we look at chart types that are designed to show distributions across categories: box and violin plots, and the more exotic swarm and strip plots.

#### 7. Customisation with seaborn

For the final session on seaborn, we go over some common types of customisation that can be tricky. To achieve very fine control over the style and layout of our plots, we'll learn how to work directly with axes and chart objects to implement things like custom heatmap labels,

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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>

## Berlin Speciation Genomics Dec3-7

Dear all, the registration deadline is soon approaching (4th Nov) and we still have the last 3 places available for our Speciation Genomics course.

Course website: ( <https://www.physalia-courses.org/-courses-workshops/course37/> )

Where: Berlin, BGBM/FU University

When: 03-07 December 2018

Instructors: Dr. Mark Ravinet (CEES, Univeristy of Oslo, Norway) Dr. Joana I. Meier (University of Cambridge, UK)

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.

Should you have any questions, please feel free to contact us at: ( [info@physalia-courses.org](mailto:info@physalia-courses.org) )

Many thanks. Best regards, Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR  
[info@physalia-courses.org](mailto: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](mailto:info@physalia-courses.org)>

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## Bodega AppliedPhylogenetics May25-Jun2

UC Davis WORKSHOP IN APPLIED PHYLOGENETICS at Bodega Marine Laboratory, Bodega Bay, California

May 25-June 2, 2019

Sponsored by the University of California, Davis and Bodega Marine Laboratory

website: <http://treethinkers.org/> Introduction Phylogenetic methods have revolutionized modern systematics and become indispensable tools in evolution, ecology and comparative biology, playing an increasingly important role in analyses of biological data at all levels of organization ranging from molecules to ecological communities. The estimation of phylogenetic trees is now a formalized statistical problem with general agreement on the central issues and questions. A nearly standard set of topics is now taught as part of the curriculum at many colleges and universities. On the other hand, application of phylogenetic methods to novel problems outside systematics is an area of special excitement, innovation, and controversy, and perspectives vary widely.

This Spring, for the eighteenth year, we will teach a workshop for graduate students interested in applying phylogenetic methods to diverse topics in biology. The 8-day course is an intensive exploration of problems to which modern phylogenetic approaches are being applied and the most current statistical tools and methods that are used to solve those problems. We cover a wide range of topics in comparative statistical phylogenetics. The course starts with recent advances in phylogenetic inference, and then focuses on methods for making inferences from phylogenies.

The course will be held at the Bodega Marine Laboratory on the beautiful Northern California coast, which has on-site housing. The course format will involve equal parts of lecture and hands-on software training with an emphasis on performing analyses using RevBayes: <http://revbayes.github.io>, with instruction in other inference software (MrBayes, BEAST, etc.) based on student interest. One afternoon during the week will be left free for field trips to local natural areas.

Topics Covered \* Estimating, evaluating and interpreting phylogenetic trees \* Recent advances in Bayesian inference of phylogeny \* Model specification: model se-

lection, adequacy and uncertainty \* Diagnosing MCMC performance \* Divergence-time estimation: relaxed clocks, fossil calibration \* Species-tree estimation and species delimitation \* Character evolution: discrete- and continuous-trait evolution \* Lineage diversification: detecting rate shifts, testing key- innovation hypotheses

Instructor Team \* Sebastian Hohna (LMU, Munich) \* John Huelsenbeck (UC, Berkeley) \* Michael Landis (Washington University) \* Mike May (UC, Berkeley) \* Brian Moore (UC, Davis) \* Bruce Rannala (UC, Davis) \* Bob Thomson (U Hawaii, Manoa) \* Peter Wainwright (UC, Davis)

Prerequisites Available housing limits course enrollment to ~30 students. Preference is given to doctoral candidates who are in the early to middle stages of their thesis research, and who have completed sufficient prerequisites (through previous coursework or research experience) to provide some familiarity with phylogenetic methods. Unfortunately, because of limits on class size, postdocs and faculty are generally discouraged from applying.

Admission and Fees Students will be admitted based on academic qualifications and appropriateness of research interests. The course fee is \$850. This includes room and board at BML for duration of the course (arriving on Saturday, May 25; departing on Sunday, June 2) and return transportation from Davis to the Bodega Marine Labs.

Application Information Applications are due by Friday, December 7, 2018. Please fill out our application form and send your CV and one letter of recommendation from your major advisor. Applications should be sent via email as PDFs to [jsigao@gmail.com](mailto:jsigao@gmail.com). Students will be notified via e-mail by December 14, 2018 of acceptance. Visit the Bodega website for additional information: <http://treethinkers.org/>. Send all application materials to:

Jiansi Gao Department of Evolution and Ecology 5343 Storer Hall University of California Davis Davis, CA 95616 email: [jsigao@gmail.com](mailto:jsigao@gmail.com)

“[brianmoore@ucdavis.edu](mailto:brianmoore@ucdavis.edu)” <[brianmoore@ucdavis.edu](mailto:brianmoore@ucdavis.edu)>

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## BodegaBay AppliedPhylogenetics May25-Jun2

[SECOND NOTIFICATION] UC Davis WORKSHOP IN APPLIED PHYLOGENETICS at Bodega Marine Laboratory, Bodega Bay, California

May 25-June 2, 2019

Sponsored by the University of California, Davis and Bodega Marine Laboratory

website: <http://treethinkers.org/> Introduction Phylogenetic methods have revolutionized modern systematics and become indispensable tools in evolution, ecology and comparative biology, playing an increasingly important role in analyses of biological data at all levels of organization ranging from molecules to ecological communities. The estimation of phylogenetic trees is now a formalized statistical problem with general agreement on the central issues and questions. A nearly standard set of topics is now taught as part of the curriculum at many colleges and universities. On the other hand, application of phylogenetic methods to novel problems outside systematics is an area of special excitement, innovation, and controversy, and perspectives vary widely.

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The course will be held at the Bodega Marine Laboratory on the beautiful Northern California coast, which has on-site housing. The course format will involve equal parts of lecture and hands-on software training with an emphasis on performing analyses using RevBayes: <http://revbayes.github.io>, with instruction in other inference software (MrBayes, BEAST, etc.) based on student interest. One afternoon during the week will be left free for field trips to local natural areas.

Topics Covered \* Estimating, evaluating and interpreting phylogenetic trees \* Recent advances in Bayesian inference of phylogeny \* Model specification: model selection, adequacy and uncertainty \* Diagnosing MCMC performance \* Divergence-time estimation: relaxed clocks, fossil calibration \* Species-tree estimation and species delimitation \* Character evolution: discrete- and continuous-trait evolution \* Lineage diversification: detecting rate shifts, testing key- innovation hypotheses

Instructor Team \* Cecile Ane (UW, Madison) \* Sebastian Höhna (LMU, Munich) \* John Huelsenbeck (UC, Berkeley) \* Michael Landis (Washington University) \* Mike May (UC, Berkeley) \* Brian Moore (UC, Davis) \* Bruce Rannala (UC, Davis) \* Bob Thomson (U Hawaii,

Manoa) \* Peter Wainwright (UC, Davis)

Prerequisites Available housing limits course enrollment to ~30 students. Preference is given to doctoral candidates who are in the early to middle stages of their thesis research, and who have completed sufficient prerequisites (through previous coursework or research experience) to provide some familiarity with phylogenetic methods. Unfortunately, because of limits on class size, postdocs and faculty are generally discouraged from applying.

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Application Information Applications are due by Friday, December 7, 2018. Please fill out our application form and send your CV and one letter of recommendation from your major advisor. Applications should be sent via email as PDFs to [jsigao@gmail.com](mailto:jsigao@gmail.com). Students will be notified via e-mail by December 14, 2018 of acceptance. Visit the Bodega website for additional information: <http://treethinkers.org/> . Send all application materials to:

Jiansi Gao Department of Evolution and Ecology 5343 Storer Hall University of California Davis Davis, CA 95616 email: [jsigao@gmail.com](mailto:jsigao@gmail.com)

Brian R Moore <[brianmoore@ucdavis.edu](mailto:brianmoore@ucdavis.edu)>

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## Cambridge BioinformaticsForBiologists Dec3-7

Registration is now open for the “Bioinformatics for Biologists: An introduction to programming, analysis, and reproducibility” at: <https://www.training.cam.ac.uk/-bioinformatics/event/2731538> The course will focus on solutions around handling biological data. It will cover introductory lessons in programming in R, statistical analyses, data management and reproducibility. No prior R experience or previous knowledge of programming/coding is required.

Course Programme: <https://goo.gl/ALbKaV> Where: Bioinformatics Training Facility located in the Craik-Marshall Building, Downing Site, University of Cambridge, CB2 3EB, United Kingdom ( <http://-map.cam.ac.uk/Craik-Marshall+Building>)

When: 3 - 7 December 2018.

Deadline for booking is 1 November 2018.

Target audience: This course is aimed at individuals working across biological and biomedical sciences who have little or no experience in bioinformatics. Applicants are expected to have an interest in learning about bioinformatics and/or are in the beginning stages of using bioinformatics in their research with the need to develop their skills and knowledge further. No previous knowledge of programming/coding is required for this course.

Registration charges: Free for University of Cambridge students £ 50/day for all University of Cambridge staff, including postdocs, and participants from Affiliated Institutions. Please note that these charges are recovered by us at the Institutional level. It remains the participant's responsibility to acquire prior approval from the relevant group leader, line manager or budget holder to attend the course. It is requested that people booking only do so with the agreement of the relevant party as costs will be charged back to your Lab Head or Group Supervisor. £ 50/day for all other academic participants from external Institutions and charitable organizations. These charges must be paid at registration. £ 100/day for all Industry participants.

Alexia Cardona <alexia.cardona@gmail.com>

## Crete GeometricMorphometrics Jan28-Feb1

Dear colleagues,

The 8th edition of Transmitting science course "3D Geometric Morphometrics" has open registration.

Dates and Place: January 28th February 1st, 2019, Crete (Greece).

Instructor:—Dr Melissa Tallman (Grand Valley State University, USA).

Registration and more info: <https://www.transmittingscience.org/courses/geometric-morphometrics/3d-geometric-morphometrics/> PROGRAM:

Types of data acquisition: Using a microscribe. Collecting CT scans & Surface Scans. - Demonstration of Stratovan Checkpoint.

Brief Review of Fundamentals of Morphometrics: - How

to choose landmarks. - Generalized Procrustes Analysis. - Other types of alignment. - Thin plate spline warping. Processing Microscribe data. - Using DVLR to merge two views. - Using resample to resample a line. Using Landmark Editor to collect data on surfaces. - Sliding semi-landmarks (using R geomorph package).

- How to do a precision test on 3D data.

- Data exploration: PCA analyses: Using Morphologika. Using MorphoJ. Between-group PCAs. PCAs in Procrustes form space.

- Visualizing shape change: Using MorphoJ in conjunction with Landmark Editor. Making calculations and visualizing shape changes in PCA morphospace. Calculating PCA scores post hoc.

- Data exploration: Regressions. Visualizing change that is associated with size (MorphoJ). Removing change associated from size from your data (MorphoJ). Common allometric trajectories. Comparing vector directions. Extracting linear dimensions from 3D data and using them as covariates.

- Data exploration: PLS analyses. Using MorphoJ to mean center (or not). Visualizing shape change in Landmark editor.

- Data exploration: Phylogeny. Visualizing shape changes in MorphoJ along a tree. Importing covariates and visualizing shape change associated with taxonomy (using MorphoJ). Creating a phylomorphospace. Correcting for phylogeny in PCA.

- Data interpretations: Using mean configurations (PAST) and Procrustes distances. Minimum spanning trees. Variability within a sample (comparing fossil distributions to extant distributions).

- Retrodeformation.

This course is organized by Transmitting Science and the Institut Català de Paleontologia M. C.

Please feel free to distribute this information between your colleagues if you consider it appropriate.

Best wishes

Sole

Soledad De Esteban-Trivigno, PhD

Scientific Director

Transmitting Science

[www.transmittingscience.org](http://www.transmittingscience.org)

[soledad.esteban@transmittingscience.org](mailto:soledad.esteban@transmittingscience.org)



## Glasgow Bioinformatics Oct29-Nov2 PartfundedScholarhps

PARTFUNDED SCHOLARHPS for the course

“Introduction to bioinformatics for DNA and RNA sequence analysis (IBDR01)”

<https://www.prinformatomics.com/course/introduction-to-bioinformatics-for-dna-and-rna-sequence-analysis-ibdr01/>

This course will run from the 29th October - 2nd November in Glasgow City Centre, Scotland, UK

<https://www.prinformatomics.com/course/introduction-to-bioinformatics-for-dna-and-rna-sequence-analysis-ibdr01/>

PR INFORMATICS ARE PLEASED TO ANNOUNCE THAT THROUGH THEIR FUNDING SCHEME THEY ARE ABLE TO OFFER PART-FUNDED SCHOLARSHIPS FOR OUR UP-COMING COURSE

“Introduction to bioinformatics for DNA and RNA sequence analysis (IBDR01)”

<https://www.prinformatomics.com/course/introduction-to-bioinformatics-for-dna-and-rna-sequence-analysis-ibdr01/>

SCHOLARSHIPS CONTRIBUTE TOWARDS COURSE FEES AVAILABLE AT pounds 330.00 (Fees have been subsidised by 40% from pounds 550.00).

We also have some accommodation packages still free which can be purchased in addition to this.

Applications should be sent to [oliverhooker@prinformatomics.com](mailto:oliverhooker@prinformatomics.com) and contain

the following.

1. Full name
2. Institute name
3. PhD subject title or Post doc research questions
4. Do you hold a funded position
5. 150 words why this course would be relevant to your research or how it would help.

Application deadline is Tuesday 16th October and decisions will be made by Wednesday 17th September 2018.

We still have 'normal' places available for anyone else interested.

Full course details are given below

Introduction to bioinformatics for DNA and RNA se-

quence analysis (IBDR01)

Delivered by Dr. Malachi Griffith

<https://www.prinformatomics.com/course/introduction-to-bioinformatics-for-dna-and-rna-sequence-analysis-ibdr01/>

Course Overview:

Analysis of high throughput genome and transcriptome data is major component of many research projects ranging from large-scale precision medicine efforts to focused investigations in model systems. This analysis involves the identification of specific genome or transcriptome features that predispose individuals to disease, predict response to therapies, influence diagnosis/prognosis, or provide mechanistic insights into disease models. During this course (IBDR01), students will perform an example end-to-end bioinformatics analysis of genome (WGS and Exome) and transcriptome (RNA-seq) data. Students will start with raw sequence data for a hypothetical case, learn to install and use the tools needed to analyze this data on the cloud, and visualize and interpret results. After completing the course, students should be in a position to (1) understand raw sequence data formats, (2) perform bioinformatics analyses on the cloud, (3) run complete analysis pipelines for alignment, variant calling, annotation, and RNA-seq (transcriptome analysis approaches will be a major component of the workshop), (4) visualize and interpret whole genome, exome and RNA-seq results, (5) leverage the identification of passenger variants for immunotherapy applications, and (6) begin to place these results in a clinical context by use of variant knowledgebases. The data, tools, and analysis will be most directly relevant to human genomics and bioinformatics research. However, many of the skills and concepts covered will be applicable to other human diseases and model organisms. Furthermore, many analysis concepts covered during the workshop will be broadly applicable to other “big data” research problems. 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.

[oliverhooker@prinformatomics.com](mailto:oliverhooker@prinformatomics.com)

Oliver Hooker PhD. PR informatics 2017 publications - Ecosystem size predicts eco-morphological variability in post-glacial diversification. Ecology and Evolution. - The physiological costs of prey switching reinforce foraging specialization. Journal of animal ecology. [prinformatomics.com](https://www.prinformatomics.com) [twitter.com/PRinformatics](https://twitter.com/PRinformatics) [facebook.com/prstatistics/](https://www.facebook.com/prstatistics/) 6 Hope Park Crescent Edinburgh EH8 9NA +44 (0) 7966500340

Oliver Hooker <[oliverhooker@prinformatomics.com](mailto:oliverhooker@prinformatomics.com)>

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## Montana Genome Assembly Nov10-11

### Workshop:

The Workshop “Genome Assembly Workshop” will be held on the University of Montana Campus, in Missoula Montana.

U.Montana.Genome Assembly Workshop. November 10-11

Interdisciplinary Sciences Building (ISB) 110

Information can be found: <https://flbs.umt.edu/-newflbs/services/montana-conservation-genomics-laboratory-mcgl/genome-assembly-workshop/>

Featuring real-time NanoPore MinION and data analysis

The assembly workshop was developed by Dr. Stefan Probst and has been taught numerous times at Universities such as Stanford, Ohio State, UC Berkeley and also at international conferences and the Smithsonian institute in Washington DC. In this workshop Dr. Probst will cover the basics of genome assembly up through downstream analyses. Topic coverage will include:

The various sequencing platforms available for genome assembly (Illumina -MiSeq and HiSeq-, IonTorrent, ABI Solid, PacBio, Nanopore and the BGISEQ-500). The pros and cons of preparation methods such as pair-end, mate pair and 10X genomics linked long-reads, and other strategies such as Dovetail Genomics’ Chicago and the Hi-C library method. Raw read data processing. De- Novo assembly strategies and tools. Assessment of genome assembly quality and improving assembly through the bioinformatic tools used. Guidance on the need for a finished vs. a draft genome assembly, what factors to consider when choosing which approach for the particular research question.

Please note the level of this workshop is intended for advanced undergrads, graduate students, post-docs, and biologists with a background in genetics.

Short-course: Genome Assembly for Biologists

Tentative schedule Basics and A-priori Knowledge of the Genome to be Sequenced

Prior knowledge about the genome that will be sequenced can help in choosing the appropriate sequencing and assembly strategy. Here, I will cover some basics

and then discuss different genome characteristics that strongly influence whether a genome will be easy or difficult to sequence and assemble successfully.

### Sequencing Platforms

I will outline different 1st, 2nd and 3rd generation sequencing strategies. The sequencing platforms I will cover in this section include Illumina (MiSeq and HiSeq), IonTorrent, ABI Solid, PacBio, Nanopore and the BGISEQ-500.

### Sequencing Library Setup

I will discuss the differences (including pros and cons) of Illumina library preparation methods, such as paired-end (PE), mate pair (MP) and 10X genomics Linked Long-Reads. I will also outline other strategies such as BAC or fosmid based sequencing and chromosome folding based long-range linkage methods such as Dovetail Genomics’ Chicago and different HiC library methods.

### Raw Read Data Processing

In this section, I will talk about tools used to assess, as well as, improve sequencing read quality.

### De- Novo Assembly Strategies and Tools

To make the workshop more useful, I will outline the different popular assembly tools (for assembly of large genomes) and briefly discuss the underlying algorithms. By doing so, I will also explain terms commonly used in genome assembly ( e.g. kmer, N50, etc).

### Assembly Quality Assessment

A critical step after assembling a genome is assessing the quality of the resulting sequence. In cases where different assemblers or different kmer sizes are used, tools are needed to decide which of the assemblies is the best. Bioinformatic Assembly Improvement

There are different tools that can be used to improve the genome sequence after the initial assembly, either by filling gap regions or finding and resolving mis-assembled regions. Furthermore, genome assemblies can be merged to improve quality. Lab-based Assembly Improvement

In this section, I will briefly discuss the pros and cons of Physical and Optical Mapping methods (such as Bio-Nano’s Iryis platform). Draft vs. Finished Assembly

A crucial decision in genomics is whether a genome assembly is good enough to address the desired research questions. Here, I will explain the differences between finished and draft genome assemblies, and give some guidance on deciding if further sequencing is needed or not. Downstream Analyses

To conclude the workshop, I will briefly outline subsequent downstream processing and analyses steps, such

as repeat and gene annotation, or how to get a haploid genome sequence into a diploid genome mapping framework.

“Max, Tamara” <tamara.max@mso.umt.edu>

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## Portugal EvolutionaryStats Jan28-Feb1

Many of the questions concerning the fields of ecology and evolution are better represented by multivariate datasets. The complex relationships observed across an ecological community, the association among different sets of phenotypic traits and the interaction between the phenotype and its environment are all fundamental questions in evolutionary ecology. The description and comprehension of complex traits is often better achieved through the quantification and analysis of multiple, frequently interdependent, phenotypic and ecological variables. The R-language for statistical computing has been increasingly used by evolutionary ecologists for statistical inference and hypothesis testing. Being a comprehensive statistical package with excellent graphical capabilities and freely available, it has become an indispensable tool in ecological and evolutionary studies: many new statistical methods have been developed in recent years using R and numerous top-rank journals nowadays favor its use for the publication of scientific results.

This course is directed towards PhD students interested in exploring the potential of R language for multivariate analyses in ecology and evolution. The course will provide a general presentation of major statistical tools for multivariate analyses, including e.g. exploratory methods, multivariate GLM, methods for controlling for evolutionary and ecological non-independence, and it will provide the participants with the skills for implementing these tools using R.

A good knowledge of basic operations in R (file import, handling objects, using functions, getting help) is required and assumed to be able to adequately follow this course. BIODIV students are encouraged to take the Introduction to R course first.

Click <<https://cibio.up.pt/workshops-courses/details/advanced-course-multivariate-statistics-for-ecology-and-evolution-2018>> here to see the programme for the course.

COURSE INSTRUCTORS

< <http://cibio.up.pt/people/details/jpgomes> > Pedro Tarroso, BIODESERTS, CIBIO-InBIO < <http://cibio.up.pt/people/details/ajpajares> > Jes os Mu oz, PLANTBIO, CIBIO-InBIO < <http://cibio.up.pt/people/details/akaliont> > Antigoni Kaliontzopoulou, PHENEVOL, CIBIO-InBIO

**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: November 29, 2018

To apply, please fill the form available < [https://docs.google.com/forms/d/e/1FAIpQLSf0rRzEmEUXWeidVNsbB7uRCqHBSdATNkuFwPG6bBCL/viewform?usp=pp\\_url](https://docs.google.com/forms/d/e/1FAIpQLSf0rRzEmEUXWeidVNsbB7uRCqHBSdATNkuFwPG6bBCL/viewform?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 December 10, 2018.

< <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](mailto:post.graduation@cibio.up.pt).

CIBIO - Centro de Investiga ao 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](mailto:divulgacao@cibio.up.pt) w: <http://cibio.up.pt> | <http://inbio-la.pt> f: <https://www.facebook.com/cibio.inbio>

CIBIO-InBIO Divulga ao

## Portugal Evolution Oct

Subject: Portugal-cE3c-Course: three advanced courses with deadlines October 2018

cE3c - Centre for Ecology, Evolution and Environmental Changes is organizing several Advanced Courses: see below the three courses with closer deadlines. Additional informations at:

<http://ce3c.ciencias.ulisboa.pt/training/?cat>

Course Natural History Collections and Biodiversity

Organized by Maria Judite Alves, Raquel Barata, Cristiane Bastos-Silveira et al. |November 5-9 2018 @ Lisbon, Portugal

Objectives

This course aims to:

- evidence the importance of natural history collections for the study of biodiversity.
- show new tools and approaches to extract and disseminate biodiversity data from natural history collections
- increase awareness of young researchers for the scientific and culture value of Natural History Museums.

Course coordinator

Maria Judite Alves (Researcher at the Centre for Ecology, Evolution and Environmental Changes (cE3c), and MUHNAC- Museu Nacional de História Natural e da Ciência)

<http://ce3c.ciencias.ulisboa.pt/member/maria-judite-silva-cardoso-alves>

Intended audience

This five days intensive course will be open to a maximum number of 16 participants, being directed to PhD or MSc students in Biology, Evolution, Ecology or related areas, and postdocs and other professionals working in related topics.

Minimum formation: Bachelor in Biology or related area.

The course is free for 1st year PhD students in the Doctoral programme in Biology (FCUL), Biodiversity, Genetics and Evolution (UL; UP) and Biology and Ecology of Global Changes (UL, UA). For information of fees for other participants see the programme details (access link below).

Deadline for applications: October 12, 2018

Candidates should send a short CV and motivation letter to Maria Judite Alves ([mjalves@fc.ul.pt](mailto:mjalves@fc.ul.pt))

For additional details about the programme of the course, fees and to know how to register, click here, and access the specific course

<http://ce3c.ciencias.ulisboa.pt/training/?cat> For more information about the course, please contact by email:

Maria Judite Alves ([mjalves@fc.ul.pt](mailto:mjalves@fc.ul.pt))

Course Production of Science Communication Activities

Organized by Cristina Luís & Patricia Garcia Pereira |November 12-16 2018 @ Lisbon, Portugal

Objectives

To introduce participants to the details of communicating science to non-specialized audiences, including, but not exclusive to, public and private stakeholders, students and teachers, and media professionals. The course will particularly address the design, organisation, implementation and impact assessment of public engagement activities such as exhibitions, science festivals or games. At the end of the course, students should be able to develop and produce small-budget events or products to communicate scientific results and ideas.

Course INSTRUCTORS

Cristina Luís (Post-doc at MUHNAC- Museu Nacional de História Natural e da Ciência)

<http://www.museus.ulisboa.pt/pt-pt/cristinaluis> And

Patricia Garcia Pereira (Post-Doc at the Centre for Ecology, Evolution and Environmental Changes (cE3c), Faculty of Sciences of the University of Lisbon)

<http://ce3c.ciencias.ulisboa.pt/member/patriacutecia-garcia-pereira> Intended audience

This five days intensive course will be open to a maximum number of 24 participants, being directed (but not limited) to PhD or Master students and Postdocs in any scientific area, as well as other professionals interested in this topic. We require only curiosity about science communication, and interest in learning about producing science communication activities.

The course is free for 1st year PhD students in the Doctoral programme in Biology (FCUL), Biodiversity, Genetics and Evolution (UL; UP) and Biology and Ecology of Global Changes (UL, UA). For information of fees for other participants see the programme details (access link below).

Deadline for applications: October 12, 2018

Candidates should send a short CV and motivation letter to Cristina Luís (cmluis@fc.ul.pt)

For additional details about the programme of the course, fees and to know how to register, click here, and access the specific course

<http://ce3c.ciencias.ulisboa.pt/training/?cat> For more information about the course, please contact by email: Cristina Luís (cmluis@fc.ul.pt)

— Course Scientific Writing and Communication

Organized by Gabor Lövei | January 7 - 11 2018 @ Lisbon, Portugal

Objectives

The objective of this course is to introduce participants to the

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## Portugal Genome Annotation Jan14-16

With the rise of the NGS technologies it is easier every day to sequence whole genomes at an affordable price since the costs have been reduced dramatically. Any research group has the possibility of getting the sequence of its interest species without being necessary the collaboration of big consortium and external sponsors.

This fact makes essential a proper identification and annotation of the gene structures for further analysis. Both eukaryotes and prokaryotes have genes hidden across their genomes in a different way but the procedure to identify them is quite similar although the effectiveness differs quite a lot.

In this practical course the students will learn the particularities of the gene identification in bacteria as well as in higher organisms. For a better understanding on the gene function the course will include methodologies for a good annotation on the identified genes, description of the annotation terms and databases for retrieving high quality annotations about functions, metabolic pathways and protein domains.

Click < <https://cibio.up.pt/workshops-courses/details/->

[advanced-course-gene-prediction-and-annotation-of-genomes-2018](#) > here to see the programme for the course.

COURSE INSTRUCTORS

< <https://cibio.up.pt/people/details/amunoz> > Antonio Muñoz, Bioinformatics, CIBIO-InBIO

INTENDED AUDIENCE The course will be open to a maximum number of 25 participants.

All the participants will be required to have previously set a Unix system in their laptops (OSX or Linux).

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: November 15, 2018

To apply, please fill the form available < [https://docs.google.com/forms/d/e/1FAIpQLSemkGUA2zfRmcxEMXTQRmNGbnL.ZVtuDti3CAGVzGV/viewform?usp=pp\\_url](https://docs.google.com/forms/d/e/1FAIpQLSemkGUA2zfRmcxEMXTQRmNGbnL.ZVtuDti3CAGVzGV/viewform?usp=pp_url) > HERE

Participation is free of charge for BIODIV students | 65 €(students) | 125 €(other participants). CIBIO-InBIO members will have an additional discount of 20%. All applicants will be notified about whether they are accepted until November 26, 2018.

< <http://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](mailto:post.graduation@cibio.up.pt) . CIBIO - Centro de Investigação em Biodiversidade e Recursos Genéticos

InBIO Laboratório Associado, Universidade do Porto

Campus de Vairão

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4485-661 Vairão

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e: [divulgacao@cibio.up.pt](mailto:divulgacao@cibio.up.pt)

w: <http://cibio.up.pt> | <http://inbio-la.pt>

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## Portugal IntroToR Dec10-14

R is a programming language for statistical computing freely available, and with excellent graphical capabilities. As such, it has become an indispensable tool in all fields of biological research: many new statistical methods have been developed in recent years using R and numerous top-rank journals nowadays favor its use for the publication of scientific results.

The objective of this short course is to provide a general introduction towards using R for data analyses. We will provide a general review of basic operations, data types and management, aiming at familiarizing the students with the R environment without requirement of prior experience in R or programming. The course will follow a hands-on approach, with a theoretical background previous to each practical session. Participants are encouraged to bring their own data.

This course will provide the basis for more advanced courses on specific topics using R, and it will be a requirement for students interested in enrolling in those courses.

Click < <https://cibio.up.pt/workshops-courses/details/-advanced-course-intro-to-r-2018> > here to see the PROGRAMME for the course.

### COURSE INSTRUCTORS

< <http://cibio.up.pt/people/details/jpgomes> > Pedro Tarroso, BIODESERTS, CIBIO-InBIO

< <http://cibio.up.pt/people/details/ajpajares> > Jesus Muoz, PLANTBIO, CIBIO-InBIO

< <http://cibio.up.pt/people/details/akaliont> > Antigoni Kaliontzopoulou, PHENEVOL, CIBIO-InBIO

**INTENDED AUDIENCE** This course will be open to a maximum number of 25 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: October 29, 2018

To apply, please fill the form available < [https://docs.google.com/forms/d/e/1FAIpQLSfAIAVTGpCXqyMoJgnYf4QAbv28fPvkSQ5lOF2Gj7krQ55C/viewform?usp=pp\\_url](https://docs.google.com/forms/d/e/1FAIpQLSfAIAVTGpCXqyMoJgnYf4QAbv28fPvkSQ5lOF2Gj7krQ55C/viewform?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 November 8, 2018.

< <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](mailto:post.graduation@cibio.up.pt).

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CIBIO-InBIO Divulgaao

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## Portugal MonitoringBiodiversity Dec18

On December 18, 2018 at CIBIO-InBIO Facilities in Vairao, don't miss the opportunity to gather with European experts, and acquire insight on how to implement metagenomics techniques on environmental monitoring programs.

Organised under the scope of CIBIO-InBIO's < <http://inbio-envmetagen.pt/molecular-approaches-in-aquatic-ecosystems-monitoring-programs/> > EnvMetaGen project, in close collaboration with DNAqua-Net and the EDP Biodiversity Chair, this workshop will address the power of HTS techniques for assessing biodiversity and ecological quality in freshwater, transitional and marine waters, and provide information on how these techniques are starting to be used, in Portugal and across Europe and the USA, to address biomonitoring challenges, particularly those related to the WFD.



Tel: (506) 458-7477 Fax: (506) 453-3538

Om Rajora <om.rajora@unb.ca>

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**SanDiego**  
**PopConservationGenomics Jan12-16**

Call for Abstracts Population and Conservation Genomics Workshop Plant and Animal Genome XXVII International Conference <http://www.intlpag.org/> January 12-16, 2019 Town and Country Convention Centre, San Diego, California

The annual Population and Conservation Genomics workshop will be held at the Plant and Animal Genome XXVII International conference. The workshop is scheduled on Saturday, January 12, 2019 and Monday, January 14, 2019. You are invited to attend this Workshop and submit abstracts for oral presentations on any population and conservation genomics aspect of both plants and animals. The topics may include (but not limited to): population genomic diversity and structure; molecular evolution; landscape genomics; seascape genomics; natural selection and local adaptation; population epigenomics; paleogenomics; eDNA; bioinformatics in population genomics; population genomics of speciation; metapopulation genomics; application of genomics in breeding, forensics, biogeography, demography inferences, and conservation and management of genetic resources; genomic effects of domestication, management practices, fragmentation, bottlenecks, climate and environment change, and transgenic deployment; and gene conservation; etc.

The Workshop will have 2 sessions with a provision for 12 invited speakers. Most of the invited presentations will be selected from the submitted abstracts. Please send your abstract of no more than 250 words by e-mail to Om Rajora (Om.Rajora@unb.ca) as an attached Word file no later than October 19, 2018. You will be notified by October 26, 2018 whether your abstract has been selected for an oral presentation. Thereafter, the selected presenters will need to submit their abstract to the PAG website. Authors whose abstracts are not selected for oral presentations are highly encouraged to present a poster at the conference.

#### Inquiries and Abstract Submission

For information and questions regarding the Population and Conservation Genomics workshop, please contact Om Rajora at the following coordinates.

Dr. Om P. Rajora University of New Brunswick Fredericton, NB E3B 5A3, Canada. E-mail: Om.Rajora@unb.ca

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**Sydney TamingTheBEAST Feb17-22**

Taming the BEAST Down Under  
17-22 February 2019 Sydney, Australia

Applications are now open for Taming the BEAST Down Under. This 5-day comprehensive workshop will focus on Bayesian phylogenetic analysis using the BEAST2 software. It is aimed at postgraduate students and early career researchers in the life sciences. Speakers will include the developers of BEAST2 (Remco Bouckaert and Alexei Drummond) as well as leading experts in the field from Australia and Switzerland. The workshop will be held in the beautiful and vibrant harbour city of Sydney.

The course combines lecture sessions, guided tutorials, and opportunities to discuss the analysis of your own data with experts. Topics that will be covered include: Bayesian phylogenetics, molecular clocks, total-evidence dating, phylogenetic model selection, species trees and gene trees, phylodynamic analysis, phylogeography, and trait evolution.

To apply, please send a CV and a brief description of your research interests and explanation of why you would like to attend the workshop (approx. 100 words) to Simon Ho (simon.ho@sydney.edu.au). The application deadline is 31 October and successful applicants will be notified by 10 November.

The registration fee is AU\$380 (approx. US\$275). Lunches, morning teas, afternoon teas, and several dinners will be provided. We will offer up to 5 fee waivers for workshop attendees. If you would like to be considered for a fee waiver, please indicate this in your application.

Taming the BEAST Down Under is organised by the Molecular Ecology, Evolution, and Phylogenetics group at the University of Sydney. It follows the successful Taming the BEAST workshops that have been hosted in Switzerland, New Zealand, and the UK.

For more information, please visit our website: <https://sydney.edu.au/science/biology/meep/workshops/> or contact Simon Ho (simon.ho@sydney.edu.au).

“simon.ho@sydney.edu.au” <simon.ho@sydney.edu.au>



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## UHuddersfield Leeds

Next Generation Biologists: Essential Computing Skills for Molecular Biology (<http://nextgenbiologists.org>) is a BBSRC-STARs programme-funded project to introduce and train researchers in the skills and best practices in scientific computing and bioinformatics. The format of the materials and the nature of the delivery is based on the successful “Software Carpentry” (<http://softwarecarpentry.org/>) blended-learning model, where students learn by developing skills through hands-on, live coding and peer programming sessions led by experienced Software Carpentry instructors and supported by a small team of helpers.

This is the joint announcement of the fifth and sixth workshops in the series, \*the last two workshops in the programme addressed to users who begin their adventure with computational biology\*.

The 5th workshop will take place at the University of Huddersfield on the 12-14th December (Wed-Fri).

The 6th workshop will take place at the University of Leeds on the 16-18th January (Wed-Fri).

**AUDIENCE** The workshops are aimed at researchers with little or no experience in programming and data analysis, who nevertheless need these approaches in their research in the life sciences.

**ORGANISERS AND INSTRUCTORS** The main organisers of the workshops are Dr Mary J. O’Connell (@EvoLMolly), Dr Martin Callaghan (both at the University of Leeds) and Dr Jarek Bryk (@jarekbryk at the University of Huddersfield). The project is a joint initiative of the University of Leeds and the University of Huddersfield. The instructors include Martin Callaghan, Jarek Bryk and Dr Alastair Droop (also from the University of Leeds).

**PRELIMINARY PROGRAMME** Wednesday Introduction to the fundamentals of UNIX, command-line interface and shell.

Thursday Introduction to fundamentals of R with R Studio, including data and analysis reproducibility, concluded with example analysis of high-throughput data.

Friday A “hackathon” day, during which participants will use skills learned in earlier days to solve a real-life data analysis problem of their choosing or a walk-through of an analysis of a real-life dataset using learned

skills in shell and R.

**DATE** The 5th workshop: 12-14th December 2018 (Wed-Fri). The 6th workshop: 16-18th January 2019 (Wed-Fri).

**VENUE** The 5th workshop: University of Huddersfield, UK. The 6th workshop: University of Leeds, UK.

**COSTS** The workshops are free of charge for all BBSRC-funded researchers, as well as staff and students from the Universities of Leeds and Huddersfield. For all other participants a course fee of £170 will apply that will need to be paid before the workshop begins. Travel and accommodation costs are \*not\* covered by the organisers.

**HOW TO APPLY** To apply for a place on the workshop, prepare a 200 words’ summary of your curriculum vitae and a 200 word statement detailing why this course is of particular importance to your research. Submit your information via the registration form at <https://goo.gl/forms/z16csEo1RcPUysZa2> by Monday 19th November 2018 (the same deadline for both workshops). The selection committee will notify successful applicants by the end of 21st of November. The workshops are limited to 25 participants, who are expected to bring their own computers on the workshop.

More details about the project and the workshop are available on our website at <http://nextgenbiologists.org>. We are also on Twitter at @nextgenbiol (the “l” is important :-).

See you on the workshop! The organisers University of Huddersfield inspiring tomorrow’s professionals. [[http://marketing.hud.ac.uk/\\_HOSTED/EmailSig2014/-EmailSigFooter.jpg](http://marketing.hud.ac.uk/_HOSTED/EmailSig2014/-EmailSigFooter.jpg)] Jarek Bryk <J.Bryk@hud.ac.uk>

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## UK BioinformaticsForDNARNASeq Oct29-Nov2

**FINAL CALL FOR** Introduction to bioinformatics for DNA and RNA sequence analysis (IBDR01) <https://www.prinformatics.com/course/introduction-to-bioinformatics-for-dna-and-rna-sequence-analysis-ibdr01/> This course will be delivered by Dr. Malachi Griffith in Glasgow city centre from the 29 October-2 November 2018 Course Overview: Analysis of high throughput genome and transcriptome data is a major component of many research projects ranging from large-scale precision medicine efforts to focused investigations in model systems. This analysis involves

the identification of specific genome or transcriptome features that predispose individuals to disease, predict response to therapies, influence diagnosis/prognosis, or provide mechanistic insights into disease models. During this course (IBDR01), students will perform an example end-to-end bioinformatics analysis of genome (WGS and Exome) and transcriptome (RNA-seq) data. Students will start with raw sequence data for a hypothetical case, learn to install and use the tools needed to analyze this data on the cloud, and visualize and interpret results. After completing the course, students should be in a position to (1) understand raw sequence data formats, (2) perform bioinformatics analyses on the cloud, (3) run complete analysis pipelines for alignment, variant calling, annotation, and RNA-seq (transcriptome analysis approaches will be a major component of the workshop), (4) visualize and interpret whole genome, exome and RNA-seq results, (5) leverage the identification of passenger variants for immunotherapy applications, and (6) begin to place these results in a clinical context by use of variant knowledgebases. The data, tools, and analysis will be most directly relevant to human genomics and bioinformatics research. However, many of the skills and concepts covered will be applicable to other human diseases and model organisms.

Furthermore, many analysis concepts covered during the workshop will be broadly applicable to other “big data” research problems. 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.

Monday 29th - Classes from 09:30 to 17:30 Session 1. Introduction to genomics and bioinformatics.

In this session, students will be introduced to key concepts of genomics and their application to genomics research and precision medicine in cancer. An introduction to next-generation sequencing platforms and related bioinformatics approaches will also be provided. Core concepts and tools introduced: fundamentals of genome and transcriptome analysis, next-generation sequencing, precision/personalized medicine approaches (using cancer as an exemplar disease).

Session 2. Introduction to genomics data, file formats, QC, and cloud analysis.

In this session, students will be introduced to a hypothetical patient case and related samples to be analyzed throughout the course. Students will be provided with an introduction to the whole genome, exome, transcriptome and other data sets we have generated for this test case. Information on where to get the raw data and how to access it (and other test data) will be pro-

vided. Using this data as an example, the students will learn fundamentals of next generation sequence (NGS) data formats. The students will also be introduced to accessory files needed for analysis including reference genomes, reference transcriptomes, and annotation files.

Tools for QC analysis of raw data will be demonstrated. Since most analysis will be performed on the cloud, each student will learn how to launch and log into their own cloud compute environment. Students will learn how to install bioinformatics tools and learn to use some of the most broadly useful tool kits for NGS data. Core concepts and tools introduced: file formats (Fasta, FastQ, SAM/BAM/CRAM, VCF, GTF), bedtools, Picard, samtools, fastQC, cloud computing (AWS, EC2).

Tuesday 30th - Classes from 09:30 to 17:30 Session 3. Primary genome data analysis (sequence alignment and visualization).

In this session, we will start to complete analysis of NGS data at the command line. Students will log into the cloud, and starting with their own copy of the raw data will align the whole genome and exome data to a reference genome. Following alignment, students will conduct a second quality analysis of the data and learn to visualize alignments in IGV.

Core concepts and tools introduced: alignment algorithms, reference indexes, BWA, BWA-mem, alignment indexes, alignment flags, genome browsers, duplicate marking, alignment merging and sorting, IGV.

Session 4. Whole genome and exome variant calling and annotation.

In this session, we will introduce different algorithms for identifying

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## UK EvolutionModelling Nov19-23

FINAL CALL FOR Structural Equation Modelling for Ecologists and Evolutionary Biologists (SEMR02)

<https://www.prstatistics.com/course/structural-equation-modelling-for-ecologists-and-evolutionary-biologists-semr02/> This course will be delivered by Jon

Lefcheck (author of the Piecewise package) from the 19 - 23 November 2018.

Final few places available!

Course Overview:

The course is a primer on structural equation modelling (SEM) and confirmatory path analysis, with an emphasis on practical skills and applications to real-world data. Structural equation modelling is a rapidly growing technique in ecology and evolution that unites multiple hypotheses in a single causal network. It provides an intuitive graphical representation of relationships among variables, underpinned by well-described mathematical estimation procedures. Several advances in SEM over the past few years have expanded its utility for typical ecological datasets, which include count data, missing observations, and nested or hierarchical designs.

We will cover the basic philosophy behind SEM, provide approachable mathematical explanations of the techniques, and cover recent extensions to mixed effects models and non-normal distributions. Along the way, we will work through many examples from the primary literature using the open-source statistical software R ([www.r-project.org](http://www.r-project.org)). We will draw on two popular R packages for conducting SEM, including lavaan and piecewiseSEM.

Email [oliverhooker@prstatistics.com](mailto:oliverhooker@prstatistics.com)

Check out our sister sites, [www.PRstatistics.com](http://www.PRstatistics.com) (Ecology and Life Sciences) [www.PRinformatics.com](http://www.PRinformatics.com) (Bioinformatics and data science) [www.PSstatistics.com](http://www.PSstatistics.com) (Behaviour and cognition)

1. October 29th ' November 2nd 2018 INTRODUCTION TO R AND STATISTICS FOR BIOLOGISTS (IRFB02) Glasgow, Scotland, Dr. Olivier Gauthier <https://www.prstatistics.com/course/-introduction-to-statistics-and-r-for-biologists-irfb02/>  
 2. October 29th ' November 2nd 2018 INTRODUCTION TO BIOINFORMATICS FOR DNA AND RNA SEQUENCE ANALYSIS (IBDR01) Glasgow, Scotland, Dr Malachi Griffith, Dr. Obi Griffith [www.prinformatics.com/course/precision-medicine-bioinformatics-from-raw-genome-and-transcriptome-data-to-clinical-interpretation-pmbi01/](http://www.prinformatics.com/course/precision-medicine-bioinformatics-from-raw-genome-and-transcriptome-data-to-clinical-interpretation-pmbi01/)  
 3. November 5th ' 8th 2018 PHYLOGENETIC COMPARATIVE METHODS FOR STUDYING DIVERSIFICATION AND PHENOTYPIC EVOLUTION (PCME01) Glasgow, Scotland, Dr. Antigoni Kaliontzopoulou <https://www.prstatistics.com/course/phylogenetic-comparative-methods-for-studying-diversification-and-phenotypic-evolution-pcme01/>  
 4. November 19th ' 23rd 2018 STRUCTURAL EQUATION MODELLING FOR ECOLOGISTS AND EVOLUTIONARY BIOLOGISTS

(SEMR02) Glasgow, Scotland, Dr. Jonathan Lefcheck <https://www.prstatistics.com/course/structural-equation-modelling-for-ecologists-and-evolutionary-biologists-semr02/>  
 5. November 26th ' 30th 2018 FUNCTIONAL ECOLOGY FROM ORGANISM TO ECOSYSTEM: THEORY AND COMPUTATION (FEER01) Glasgow, Scotland, Dr. Francesco de Bello, Dr. Lars Götzenberger, Dr. Carlos Carmona <http://www.prstatistics.com/course/functional-ecology-from-organism-to-ecosystem-theory-and-computation-feer01/>  
 6. December 3rd ' 7th 2018 INTRODUCTION TO BAYESIAN DATA ANALYSIS FOR SOCIAL AND BEHAVIOURAL SCIENCES USING R AND STAN (BDRS01) Glasgow, Dr. Mark Andrews <https://www.psstatistics.com/course/introduction-to-bayesian-data-analysis-for-social-and-behavioural-sciences-using-r-and-stan-bdrs01/>  
 7. January 21st ' 25th 2019 STATISTICAL MODELLING OF TIME-TO-EVENT DATA USING SURVIVAL ANALYSIS: AN INTRODUCTION FOR ANIMAL BEHAVIOURISTS, ECOLOGISTS AND EVOLUTIONARY BIOLOGISTS (TTED01) Glasgow, Scotland, Dr. Will Hoppitt <https://www.psstatistics.com/course/statistical-modelling-of-time-to-event-data-using-survival-analysis-tted01/>

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## ULisbon IslandBiogeography Jan21-24

\*Island Biogeography Course

\*Objectives\*: This course introduces the field of island biogeography, a discipline that has long influenced other research areas such as macroecology, community ecology, evolution and conservation biology. This course covers the main aspects of island biogeography, and on completion of the course the students shall have acquired knowledge and understanding on:

- 1) Ecological/evolutionary theories developed from studies on islands, and its applications in other research areas.
- 2) Processes that occur during and after island colonization, that shape island communities.

3) Island evolutionary processes.

4) Applications of island biogeography to conservation biology

\*General plan:\*

1. Introduction to island biogeography ' historical context, types of islands, characteristics of island biodiversity (Ana MC Santos; Day 1 - 4 hours).

2. Ecological processes I ' equilibrium theory of island biogeography, species-area relationship (Ana MC Santos; Day 1 ' 3.5 hours).

3. Ecological processes I ' species-area relationship and the General Dynamic Model - Practical exercises (in R) (Ana MC Santos; Day 2 ' 4 hours).

3. Ecological processes II ' Theoretical models in island biogeography (Joaquin Hortal; Day 2 ' 3.5 hours).

4. Island Communities ' colonization, assemblage characteristics, assembly processes, succession (Ana MC Santos; Day 3 ' 4 hours).

5. Ecological processes III ' Neutral Theory of Biodiversity (Luis Borda de i gua; Day 3 ' 3.5 hours).

6. Evolution on islands ' speciation, evolutionary models, adaptive radiation, phylogeography (Sofia Gabriel & Ana MC Santos; Day 4 ' 4 hours).

7. Island biogeography and Conservation biology ' theory of island biogeography and conservation, reserve design, human impacts (Ana M C Santos; Day 4 ' 3.5 hours).

\* \*

\*Teachers\*: Ana M. C. Santos (coordinator; MNCN - Madrid), Luis Borda de i gua (CIBIO-Lisboa), Joaqui Ân Hortal (MNCN - Madrid), Sofia Gabriel (CESAM).

\*Calendar\*: 21<sup>st</sup> -24<sup>th</sup> January 2019

\*Duration\*: 30 hours

\*Schedule\*: \*9h-13h and 14h-17h30, every day

\*This course can have a recognition of 5 ECTs for FCUL PhD students enrolling in it as part of their first doctoral year.\*  
 \*\*For students requiring a recognition of 6 ECTs, 6 more hours of tutorial time will be included (amounting to a total of 36 hours of contact with the teachers), and the students will need to deliver an additional report (two reports total).\*

\*Location\*\*\*Departamento de Biologia Animal (FCUL), Daculdade de Ciencias, Universidade de Lisboa, Campo Grande, Lisboa

\*N ÂO (min, max) students\*: 5-20

\*Minimal formation of students\*: "Licenciatura" (bach-

elor) in Biology, Geography or related areas.

\*Directed to\*\*\*PhD or MSc students in Evolution, Ecology, Geography or related areas, and postdocs and other professionals working in related topics

\*Fee\*: free for 1st year PhD students in the Doctoral program in Biology (FCUL), Biodiversity, Genetics and Evolution (BIODIV UL; UP) and Biology and Ecology of Global Changes (BEAG UL, UA) when the course counts credits for their formation, in which case the delivery of a final report done after the course is mandatory; 40 ÂÂ Â Â for more advanced PhD students of cE3c; 65 ÂÂ Â Â for PhD students

When the maximum number of students is reached 10 vacancies will be available for non-paying 1st year PhD students mentioned above, being, by order of preference: 1) cE3c students; 2) BIODIV students (not from cE3c); 3) FCUL students (not from cE3c); 4) BEAG students (not from FCUL).

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\*Deadline for applications\*: December 14<sup>th</sup> , 2018

Candidates should send a short CV and motivation letter explaining why they are interested in the course, also including a brief description of their research projects (if applicable). Send all information and requests to Ana M. C. Santos (ana.margarida.c.santos@googlemail.com <mailto:ana.margarida.c.santos@googlemail.com>). The cv and letter should be named as /1st-lastNAME-CV.pdf/ /and 1st-lastNAME-ML.pdf/ (that is personalize the name of each file with your first and last name).

\*In the email please add the following information:\*

— Full Name, E-mail, — Phone, — Professional activity: Professional/Postdoc, BTI, BI (or other non-post-doc research grant), PhD student (with/ without scholarship), Lic. (Bachelor)/Master student, — Academic level, — PhD student of the 1st year of Doctoral programme BIODIV (FCUL/FCUP), Biologia (FCUL) or BEAG (FCUL or UA)?, — If yes to the above question, PhD student doing the Course to count credits for 1st year?, — PhD student of cE3c or CEF (Centro de Ecologia

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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>

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## Venice EvoDevoMechanism Aug26-30

\*\*\* Venice Summer School 2019 - Mechanism in Development and Evolution \*\*\*

Aug 26 - Aug 30, 2019, Centro Culturale Don Orione Artigianelli, Venice, IT

Organisers:

Johannes Jaeger, Complexity Science Hub (CSH), Vienna, AT, [jaeger@csh.ac.at](mailto:jaeger@csh.ac.at) Berta Verd, University of Cambridge, UK, [bv291@cam.ac.uk](mailto:bv291@cam.ac.uk) James DiFrisco, KU Leuven, BE, [james.difrisco@kuleuven.be](mailto:james.difrisco@kuleuven.be)

Teaching Panel:

Ingo Brigandt, University of Alberta, Calgary, CA Graham Budd, University of Uppsala, SE Virginie Courtier-Orgogozo, Institut Jacques Monod, Paris, FR James DiFrisco, KU Leuven, BE Scott Gilbert, Swarthmore College, USA Veri Anica Grieneisen, John Innes Centre, Norwich, UK Angela Hay, MPI for Plant Breeding Research, Cologne, DE Johannes Jaeger, Complexity Science Hub (CSH) Vienna Fred Nijhout, Duke University, USA Mihaela Pavlicev, Cincinnati Children's Hospital, USA James Sharpe, EMBL Barcelona, ES Berta Verd, University of Cambridge, UK Giinter Wagner, Yale University, USA

Application will open via EMBO's course website in January 2019. In the meantime, please follow @VeniceEvoDevo on Twitter or sign up at the following link for updates: <http://events.embo.org/coming-soon/-index.php?EventID=3bs19-41> . Course description:

Understanding organismal development and its evolution has been one of the biggest challenges for biology since its earliest beginnings. It is the central aim of developmental biology to elucidate the mechanisms underlying pattern formation and morphogenesis. By extension, evolutionary developmental biology (evo-devo) is also considered a "mechanistic science." But what exactly is meant by "mechanism" in these contexts? What

is a developmental mechanism? What is a "mechanism" in developmental evolution? How do these "mechanisms" contribute to evolutionary change? The answer to these fundamental questions is far from clear. And yet, clarity on this foundational conceptual issue is essential for research progress, not only in development and evolution but far beyond, as the nature of the term "mechanism" determines the questions we ask and the explanations that are accepted as valid in disciplines across the life and cognitive sciences.

We have gathered a select group of world-leading empirical investigators and theoreticians from the field of developmental biology and evo-devo together with modelers and philosophers of biology to discuss what "mechanism" means, and what kind of properties the concept should incorporate to guide productive new research and the integration of developmental biology and evolutionary theory. This integration lies at the very heart of modern biology. Its relevance transcends the scope of evo-devo, since an understanding of the mapping from genotype to phenotype through metabolism, physiology, and development is also crucial in other fields, such as the genetic study of complex disease, or organismal behaviour.

This course is mainly aimed at early-stage (PhD or post-doc) empirical and theoretical researchers with a general background and interest in developmental and/or evolutionary biology. More senior investigators are welcome to apply as well. Exceptions can be made for motivated masters students. Participants of previous Venice Summer Schools in Evo-Devo are expressly encouraged to reapply as this course has an entirely different topic. The course will equip participants with the conceptual tools to engage in a productive discussion of the notion of "mechanism" and to relate this notion to their own research questions and explanations.

Important deadlines:

Application/abstract deadline: Apr 30, 2019 Notification of successful candidates: May 15, 2019 Payment/registration confirmation deadline: Jun 30, 2019

— Dr. Johannes Jaeger Fellow, Centre de Recherches Interdisciplinaires (CRI), Paris Associate Faculty, Complexity Science Hub (CSH) Vienna +43 664 216 02 43

Johannes Jaeger <[yoginho@gmail.com](mailto:yoginho@gmail.com)>

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## Instructions

Instructions: To be added to the EvolDir mailing list please send an email message to Golding@McMaster.CA. At this time provide a binary six letter code that determines which messages will be mailed to you. These are listed in the same order as presented here — Conferences; Graduate Student Positions; Jobs; Other; Post-doctoral positions; WorkshopsCourses. For example to receive the listings that concern conferences and post-doctoral positions this would be 100010. Messages are categorized on the basis of their subject headings. If this subject heading is not successfully parsed, the message will be sent to me at Golding@McMaster.CA. In addition, if it originates from ‘blackballed’ addresses it will be sent to me at Golding@McMaster.CA. These messages will only be read and dealt with when I have time. The code 000000 has all channels turned off and hence gets only a once monthly notification of the availability of a monthly review pdf file.

To be removed from the EvolDir mailing list please send an email message to Golding@McMaster.CA. Note that ‘on vacation’, etc, style messages are automatically filtered and should not be transmitted to the list (I hope), but should you wish to avoid the e-mail’s your code can be temporarily changed to 000000.

To send messages to the EvolDir direct them to the email `evoldir@evol.biology.McMaster.CA`. Do not include encoded attachments and do not send it as Word files, as HTML files, as  $\LaTeX$  files, Excel files, etc. . . . plain old ASCII will work great and can be read by everyone. Add a subject header that contains the correct category “Conference:, Graduate position:, Job:, Other:, Postdoc:, Workshop:” and then the message stands a better chance of being correctly parsed. Note that the colon is mandatory.

The message will be stored until the middle of the night (local time). At a predetermined time, the collected messages will be captured and then processed by programs and filters. If the message is caught by one of the filters (e.g. a subject header is not correctly formatted) the message will be 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  $\LaTeX$  do not try to embed  $\LaTeX$  or  $\TeX$  in your message (or other formats) since my program will strip these from the message.