# E v o l D i r

December 1, 2021

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

## Foreword

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

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

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

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# Conferences



## Bainbridge WA SelfishEvolution Jul24-27

AGA2022 President's Symposium - Selfish Evolution: Mechanisms & Consequences of Genetic Conflict

Save the Date! President Lila Fishman will hold the 2022 Symposium July 24-27, 2022, at the beautiful venue of the IslandWood < https://islandwood.org/outdoor-meeting-and-retreat-venue/ > campus on Bainbridge Island near Seattle, Washington (with virtual options for speakers and attendees). The Symposium will include the Key Lecture plus two days of invited talks, panels, and poster sessions on topics spanning the field of genetic conflict and selfish evolution.

AGA Symposia are small meetings that provide excellent opportunities for cross-stage interaction, and the American Genetic Association is committed to supporting early-stage attendees. Stay tuned for more details in the New Year!

https://www.theaga.org/index.htm Anjanette Baker <theaga@theaga.org>

## CIGENE AquacultureGenomics Nov10

Hi all,

We are pleased to introduce the next speaker for CIGENE seminars: Professor Ross Houston, Personal Chair of Aquaculture Genetics, The Roslin Institute, University of Edinburgh, will present:

Applications of genomics to expedite genetic improvement in aquaculture species

Abstract: The potential to grow aquaculture production via informed use of selective breeding and genomic technologies is huge, due to the relatively recent domestication and high fecundity of most species. In the more advanced, high value aquaculture sectors such as Atlantic salmon, genomic selection is routinely applied to increase selection accuracy and therefore cumulative genetic gain. This has been enabled by the development of high density SNP arrays and genotyping by sequencing technologies. To translate these benefits to many other aquaculture species, lower cost solutions are required, such as combined-purpose low density SNP panels with genotype imputation.

In parallel, high quality annotated reference genomes and functional genomic assays to profile transcriptional regulation can now be utilised to prioritise putative causative variants in genomic regions associated with traits of economic interest. Such variants can potentially be harnessed to improve the accuracy of genomic prediction, and persistency of that accuracy in more distant relatives. Genome editing (e.g. CRISPR/Cas9) can be used to demonstrate the causality of these variants, and also has potential for the 'introgression' of favourable alleles from other strains or species, or the informed generation of de novo alleles, including via the application of genome-wide CRISPR screens.

This presentation will describe some examples of applied genomic and genome editing research aiming to take steps towards improvements in aquaculture breeding and production, with a focus on disease resistance. Time: Wednesday, November 10th, 12:00-13:00 CET Place: This will be an online seminar: Click here for

access to the Zoom seminar. < https://nmbu.zoom.us/-j/67064421833 >

For more information, check out the seminar website: https://cigene.no/cigene-seminar-series/ Best,

Marie SAITOU, Ph.D. (looking for a gene-editing expert postdoc!!!)

Tenure-Track Principal Investigator, Centre of Integrative Genetics (CIGENE), Faculty of Biosciences, Norwegian University of Life Sciences https://sites.google.com/view/saitou-lab Marie Saitou <marie.saitou@nmbu.no>

## Online CIGEN HumanMigration Nov17

Hi all,

We invite you to the next CIGENE seminar. The presenter is Hie Lim Kim, Assistant Professor at Asian School of the Environment, Nanyang Technological University, Singapore Title: Human back migration out of Sundaland driven by sea-level rise during the last deglaciation Abstract: The rapid sea-level rise since the Last Glacial Maximum (LGM) flooded Sundaland changed Southeast Asian coastal landscapes dramatically and impacted the human demography. We reconstructed sea level and paleogeography and infer the population history in Southeast and South Asia since the LGM to present, using 742 whole-genome sequencing datasets generated by GenomeAsia 100K. We show that rapid sea-level rise reduced land area by > 50% since the LGM and segregated human populations and drove Southeast Asians to migrate into South Asia. Time: Wednesday, November 17th, 12:00-13:00 CET Place: This will be an online seminar: Click here for access to the Zoom seminar. < https://nmbu.zoom.us/j/67064421833 > For more information and recording request, check out the seminar website: https://cigene.no/cigene-seminar-series/ Best,

**We are looking for a gene-edigint expert** https://-/www.jobbnorge.no/en/available-jobs/job/214147/-researcher-within-functional-genomics-in-atlantic-salmon Marie SAITOU, Ph.D. Tenure-Track Principal Investigator, Centre of Integrative Genetics (CIGENE), Faculty of Biosciences, Norwegian University of Life Sciences https://sites.google.com/view/saitou-lab

## Online FeminismAndSexualSelection Dec3

Dear all,

Welcome tothis one-daywebinar on December 3:

Anniversary Symposium

The Descent of Man and Selection in Relation to Sex - 150 years of feminist engagement with sexual selection

It is now 150 years since Charles Darwin published the Descent of Man and Selection in Relation to Sex, elaborating his theory of sexual selection which aimed at explaining the evolution of extravagant male sexual characteristics of for example peacocks. Ever since its publication, feminists have engaged in sexual selection theory. First as external commentators to science arguing for sexual selection as an emancipatory alternative to god-given male supremacy in society, and later as critics and agents of change within science. This interdisciplinary symposium exhibits work by historians, philosophers of science and biologists on feminist engagements in sexual selection from 1871 till today.

The Webinar takes place on December 3, 2021. Each talk takes 40 minutes followed by 10 minutes discussion.

The lectures will be recorded and made available afterwards.

Participation is free of charge, register here:

https://su.powerinit.com/Data/Event/-EventTemplates/2602/?EventId=1468 Organizers:Malin Ah-King, coordinator at the Gender Academy of Stockholm University, and Ingrid Ahnesjö, Professor of Animal Ecology, Uppsala University.

Malin Ah-King <malinslistor@gmail.com>

## Online HumanTransposableElement-sEvolution Dec3

Dear EvolDir,

Join us for the first online and free conference on

"Transposable Elements in Human Brain Evolution and Diseases" hosted by the University of Bologna (https://-/transposableelementsbrain.wordpress.com/)

Dec. 3rd, 2021 at 5pm CET

Mounting data suggest that Transposable Elements (TEs) are a major evolutionary driving force. Indeed, recent evidence suggests a role of TEs in human brain evolution and diseases, i.e. neuropsychiatric disorders. The aim of the conference is to highlight the role of TEs in affecting brain functionality by bringing together researches on human stem cells and on vertebrate model brains. During the course of the conference our speakers will illustrate the state of the art of TEs in brain evolution and diseases and describe new perspectives in this field. The invited speakers are leading researchers in the sector: Jose Luis Garcia-Perez, Marie E. Ji¿½nnson, Cedric Feschotte and Fabio Macciardi.

The conference consists of four contributed talks (30 minutes) and a round table in breakout rooms and is open for everyone that wishes to attend. Pre-registration is required. A schedule for the symposium together with information about registrations can be found at, https://transposableelementsbrain.wordpress.com/ Alessio Boattini

alessio.boattini2@unibo.it alessio.boattini2@unibo.it

## Online InvertGenomics GIGA4 Nov16-18

Registration is open for the Fourth International Meeting of the Global Invertebrate Genomics Alliance (GIGA, http://www.gigacos.org/), which will be held online on 16-19 November via Zoom. Here is the link to the conference website: https://-giga4.sciencesconf.org/ A couple of slots are still available in the PCI Genomics session (featuring preprints submitted for recommendation to PCI Genomics, https://genomics.peercommunityin.org/ - to present in this session, you should submit a preprint to PCI Genomics while mentioning your intention to present it at GIGA IV) and in the contributed talks session (to present in this session, please submit directly your abstract on the conference website).

– Jean-Franï¿½ois Flot Associate Professor Interuniversity Institute of Bioinformatics in Brussels - (IB)ï¿½ & Evolutionary Biology & Ecology - C.P. 160/12 Universitï¿½ libre de Bruxelles (ULB) Avenue F.D. Roosevelt 50 B-1050 Brussels - Belgium http://ebe.ulb.ac.be/ebe/-Flot.html jflot@ulb.ac.be

## Online Popgroup UK

Dear all,

Registration for PopGroup55 is now open! To register and get more information about the meeting please follow this link:https://-www.populationgeneticsgroup.org.uk/. Virtual with twist

Although this year's PopGroup will once againbe virtual, we have made some changes to try and increase networking opportunities and support early career researchers.

We are encouraging attendees to set up local-meet ups to watch talks, discuss science and socialise. These meet-ups could be as simple as a few people sharing a laptop in an office, or be a larger gathering bringing together popgroupers from neighbouring cities to watch on a big screen. Or anything in between.Whatever the size of the meet-up, we will be supporting local-organisers and will provide vouchers for catering through a food delivery supplier. Theidea is to get together as safely as possible, talk about science and get a bit of the of the PopGroup atmosphere. More information about local-meet ups can be found here:https://www.populationgeneticsgroup.org.uk/-local-meet-up-information/ .If you are interested in coordinating a local meet-up then please emailtraining@earlham.ac.uk.

Attendees are also more than welcome to attend and participate in PopGroup55 as an individual and will be able to join theZoom link from anywhere they wish to.

Talks and Twitter flash presentations Abstract submission for talks is open and as usual talks will be allocated on a first come first served basis. Instead of an online poster session, we are inviting attendees to submit an abstract to present aflash presentation via twitter:https://www.populationgeneticsgroup.org.uk/-twitter-flash-presentations/ Wilfried Haerty Group Leader

Norwich Research Park Norwich Norfolk NR4 7UZ +44 (0) 1603 450 974 wilfried.haerty@earlham.ac.uk www.earlham.ac.uk "Wilfried Haerty (EI)" <Wilfried.Haerty@earlham.ac.uk>

## Online TranscriptionFactorEvol Dec1

Dear All,

At the next CIGENE seminar, Anthony Mathelier, University of Oslo, will present: Towards high-quality maps of TF-DNA interactions Abstract: Transcription Factors (TFs) are key proteins regulating when and where genes are expressed through their interaction with the DNA at specific binding sites. Hence, the identification of these TF binding sites (TFBSs) is essential to further our understanding of transcriptional regulation. In this talk, I will present our recently developed methodology to identify high-quality direct TF-DNA interactions by combining experiment and computational evidence. Time: Wednesday, December 1st, 12:00-13:00 CET Place: This will be an online seminar: Click here for access to the Zoom seminar. < https://nmbu.zoom.us/-j/67064421833 >

For more information, check out the seminar website: https://cigene.no/cigene-seminar-series/ ** We are looking for a gene-edging expert postdoc **

Marie SAITOU, Ph.D. Tenure-Track Principal Investigator, Centre of Integrative Genetics (CIGENE), Faculty of Biosciences, Norwegian University of Life Sciences https://sites.google.com/view/saitou-lab Marie Saitou <marie.saitou@nmbu.no>

## SanAntonioZoo CaveFishAdaptation Feb27-Mar3

Registration is now open for the next Astyanax International Meeting for Cavefish. The cavefish meeting will be held February 27th through March 3th, 2022 at the San Antonio Zoo as an in-person meeting. A virtual option to attend the talks will also be available.

To register go here:https://www.stowers.org/-aim2022/registration For more information:https://-/www.stowers.org/aim2022/home We encourage attendance of researchers interested in a wide variety of questions related to cave adaptation or adaptation to extreme and changing environments in general.

Keynote speaker will be Dr. Marianne Bronner from Caltech.

The meeting will take place at the Hippo Viewing Room and the Beastro Restaurant at San Antonio Zoo. Registration is first come, first served (maximum 150 attendees), and includes a Supporter Annual Pass to enjoy one-year free access to the Zoo.

We have secured a large, well ventilated conference space where social distancing will be possible, and CDC guidelines on mask wearing will be followed during presentations. Attendance of social functions is optional.

A preliminary program can be found here:https://-www.stowers.org/aim2022/program The Astyanax International Meeting for Cavefish is organized by volunteers from the cavefish scientific community and is not sponsored by the Stowers Institute for Medical Research.

– Nicolas Rohner, Ph.D. Associate Investigator Stowers Institute for Medical Research

1000 E 50thStreet, Kansas City, MO 64110

Phone: +1 (816) 926-4151

“Rohner, Nicolas” <nro@stowers.org>

## UMichigan RacialJusticeInEEBRes Mar19-Apr8

CALL FOR NOMINATIONS

17TH ANNUAL EARLY CAREER SCIENTISTS SYMPOSIUM

Racial Justice in EEB Research

The Department of Ecology and Evolutionary Biology (EEB) at the University of Michigan invites nominations for the 17th Annual Early Career Scientists Symposium. The symposium will highlight early career researchers transforming our discipline through anti-racist and justice-centered research that pushes our understanding of the links between EEB research and society. The goal of this symposium is to provide a space for the EEB community to think imaginatively about the future of our discipline. With this in mind, we welcome nominations of researchers who take anti-racist and justice-centered approaches to research in any area of EEB, which could include (but not limited to): Global Environmental Change, Genomics and Population Genetics, Urban Ecology and Evolution, Environmental History, Stem Education, Museum Science, Marine Ecol-

ogy, Water Security, Theoretical Ecology and Evolution, Global Food Systems, and Disease Ecology.

The symposium will take place across four consecutive Fridays from March 19th - April 8th, 2022. Eight early career scientists will be selected to present their work, and two keynote speakers will be featured. The symposium will kick off with an in-person and live-streamed event on March 19th. The symposium will move to a virtual format in the following weeks, with two to three participants presenting each week, followed by a moderated discussion.

For the symposium, we consider early career scientists as senior graduate students (who stand to receive their Ph.D. within two years), postdoctoral researchers, faculty or staff scientists within their first or second year, and researchers at equivalent career stages who are not affiliated with an academic institution. Please contact the planning committee with questions about eligibility.

Nominations can come from colleagues or advisors. Self-nominations are also encouraged. Nomination materials should include: (1) contact information, (2) a brief description of the nominee's work and proposed presentation, and (3) any other information that may help the committee review and select participants (for example, the nominee's curriculum vitae; link to the nominee's professional website; representative publication, media, or product that showcases the nominee's work).

Nominations should be sent electronically as a single PDF file to ecss-2022@umich.edu using the subject line format, "nominee's Last Name, First Name ECSS 2022 Nomination".

Review of nominations will begin on January 15th, 2022.

Selected participants will be contacted in late-January. An official announcement of speakers will be issued soon thereafter.

Information about Early Career Scientist Symposia held in past years can be found at

http://sites.lsa.umich.edu/ecss/. For more information or questions about eligibility, please contact ecss-2022@umich.edu.

Tom Duda <tfduda@umich.edu>

## WhistlerBC TransposableElements Feb27-Mar3

What: Keystone Symposium "Transposable Elements at the Crossroads of Evolution, Health and Disease" Where: Whistler Conference Centre, Whistler, BC, Canada When: February 27 - March 3, 2022 Deadlines: Scholarships - November 17, 2021; Abstracts - November 23, 2021

This forum, usually held once every four years, aims to cover the broadest possible range of transposon biology across all kingdoms of life. As evident from the meeting title, evolution is one of its focal topics. The meeting summary is available at https://keysym.us/-KSTranspose22 along with a preliminary program. In addition to invited talks, many talks will be selected from submitted abstracts, including an additional Monday afternoon workshop under development. This year, the meeting is paired with "Epigenetic Mechanisms and the Treatment of Cancer", including a joint session, non-overlapping afternoon workshop/panel schedules, and common poster/break areas to enhance interaction.

Keystone Symposia remains committed to in-person meetings in 2022, requiring all participants to be vaccinated. Canada is open to fully vaccinated visitors, and its current vaccination rate is close to 75%. We have not yet received permission for livestream and on-demand options, however in any case the presenters are expected to attend and present in-person, to ensure extensive interaction. Travel scholarships are available for early-career and under-represented scientists. Abstract is required to qualify for scholarships.

Please forward this information to your colleagues and trainees who might be interested in attending, and spread the word on social media #KSTranspose22 to your followers.

We look forward to welcoming you at the Keystone Symposium in 2022! Kathy Burns, Harmit Malik, Irina Arkhipova, organizers

iarkhipova@mbl.edu

# GradStudentPositions



## AMNH NewYork ComparativeBiology

We are now accepting applications for our Ph.D. in Comparative Biology Program and Graduate Fellowships Program at the American Museum of Natural History's Richard Gilder Graduate School for Fall 2022.ï¿½ Deadline: December 15, 2021.

The AMNH Ph.D. Program in Comparative Biology is training the next generation of biologists through an integrative approach focused on the history, evolutionary relationships, and interactions among species. It builds on the Museum's strength and experience in research and training, educating a new generation of scientists to become leaders in understanding the history and diversity of life on Earth and in disseminating their work in ways that will support advances in biological research, human health, biodiversity conservation, and other related fields. This is an accelerated program, designed for students to complete their degrees in four years. The Richard Gilder Graduate School will typically provide full financial support to students matriculating in the Comparative Biology Ph.D. Program.

We also offerï¿½Ph.D. Graduate Fellowshipsï¿½for students interested in earning a Ph.D. at one of our partner institutions.ï¿½ 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 withï¿½Columbia University, City University of New York (CUNY), Cornell University, Stony Brook University, and New York

University (NYU).ï¿½The 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,ï¿½students must apply to both the host University's Ph.D. program andï¿½to 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.ï¿½

Students who plan to apply to both the RGGS Comparative Biology Ph.D. Program and to the Graduate Fellowship Program complete one single application, indicating on the application the program(s) to which they wish to apply. Students applying for the Graduate Fellowship must also apply for admission to at least one Ph.D. Program at one of the Museum's Partner Institutions.

Applicants are strongly encouraged to contact a member of the faculty prior to application (see: https://www.amnh.org/research/richard-gilder-graduate-school/faculty)

For more information and to apply, please go to: https://www.amnh.org/research/richard-gilder-graduate-school/academics-and-research/fellowship-and-grant-opportunities/doctoral-student-fellowships
Anna Manuel <amanuel@amnh.org> Anna Manuel <amanuel@amnh.org>

## BangorU AmphibianDiseaseEvolution

We are seeking a PhD student to work at the interface of amphibian disease ecology, microbiology, and evolutionary ecology.

The lab of Dr. Amy Ellison is offering a PhD studentship to study Chytrid infection dynamics in the poison frog, Dendrobates tinctorius. This is an exciting opportunity to work as part of an international team to explore and develop interests and expertise in the dynamics of amphibian disease.

Application deadline: 12 Jan 2022

Project description: Infectious diseases have long been known to be influenced by the biotic, abiotic, and genetic â' under which they occur. Recently, the microbial community that lives within and on an individual has been shown to affect susceptibility to disease. However, because microbiomes are dynamic and affected by both the ecology and genetics of their host, a central goal in disease ecology is to understand how the environment interacts with an organism's ecology and evolutionary history to affect both their microbiome and disease susceptibility.

In this project, based at Bangor University and in collaboration with the Smithsonian National Zoo and Conservation Biology Institute (USA), the student will use a combination of laboratory animal experiments, fieldwork and molecular approaches to investigate the links between ecology, evolution, and the microbiome of the dyeing poison frog (Dendrobates tinctorius) on susceptibility to the fungal skin pathogen Batrachochytrium dendrobatidis (Bd), considered one of the greatest threats to vertebrate biodiversity around the world.

The project offers a wealth of opportunities for the student to gain experience in molecular biology, evolutionary genetics, microbiology, disease ecology and science communication. The studentship will be based within the Molecular Ecology and Evolution group (meeb.bangor.ac.uk), a world leader in the analyses of molecular data addressing global issues in disease biology and evolutionary genomics. It offers a dynamic and supportive training environment for young scientists. There will be opportunities for the student to work and train with US collaborators and perform international fieldwork (South America) during the project.

Location: The studentship will be held at Bangor University, in Northwest Wales, with opportunities to visit project partners in the USA and conduct fieldwork at locations in South America. The Molecular Ecology and Evolution group at Bangor (MEEB) is an internationally leading research group that focuses on understanding the diversity and function of both micro- and macro-organisms, including plants, microorganisms and animals throughout terrestrial, aquatic and aerobiological biomes. A central part of our work involves the application of genetics, genomics, transcriptomics and other high-throughput molecular techniques to address fundamental evolutionary and ecological questions relating to the origins, levels, distribution and ecological significance of genetic variation. In MEEB we complement molecular genetic data with detailed ecological, behavioural, physiological, microbiological and environmental data to understand the underlying causes of individual, population or species diversity in time and space.

Funding details. - The competitive studentship is fully funded for 3.5-year. - A tax-free stipend is paid at the standardâ€UKRI rate; Â£15,609 in 2021/22. - All university fees are paid. - A Research and Training Grant of Â£8,750 is provided to fund research, conference attendance and networking. Opportunities to bid for additional funding are available. - All Envision projects can be undertaken on either a Full Time or Part Time (minimum of 0.5 FTE) basis.

For additional details on funding and how to apply, please refer to these details of the ENVISION DTP: https://www.findaphd.com/phds/program/envision-nerc-dtp/?i1698p2350 For more information please Contact: Dr. Amy Ellison (a.ellison@bangor.ac.uk) or use the following link: https://www.findaphd.com/-phds/project/you-are-what-you-eat-effects-of-diet-skin-alkaloids-and-the-microbiome-on-batrachochytrium-dendrobatidis-infection-in-the-poison-frog-dendrobates-tinctorius/?p136387 Mae croeso i chi gysylltu gyda'r Brifysgol yn Gymraeg neu Saesneg

You are welcome to contact the University in Welsh or English

Rhif Elusen Gofrestredig 1141565 - Registered Charity No. 1141565

Aaron Comeault <a.comeault@bangor.ac.uk>

## BangorU ColdBloodInWarmingWinters

I am seeking applicants for a competitively funded PhD program as part of my new research group at Bangor University in Wales, UK. The successful applicant will be put forward for funding from the Envision Doctoral Training Program (NERC-funded). More details: https://www.lancaster.ac.uk/-lec/research/envision/ *About the Project:* Environmental change is causing temperatures to rise across the globe - how this will affect the distribution and abundance of species is therefore an important current focus for ecologists worldwide. An under recognised aspect of climate change is increased overwinter temperatures. While research has focused largely on the impacts of hot periods (i.e. summer) getting hotter, winter temperatures have in fact been rising at a faster rate than summer temperatures over the last century. Ectothermic species such as reptiles are especially vulnerable to projected thermal shifts given their physiological reliance on ambient temperatures. However, reptile responses to climate shifts have received little attention, and existing work has been heavily biased towards the summer active season. Reptiles at temperate latitudes often rely on a temperature-sensitive winter hibernation period. Evidence suggests that milder winters could disrupt hibernation, with lasting carryover effects on phenology, breeding success, and tolerance to stressors. Nevertheless, due to the scarcity of data, how reptiles in temperate regions such as the United Kingdom will respond to rising winter temperatures remains unknown. The student will conduct laboratory-based experiments using an invasive lizard in the UK, the wall lizard (Podarcis muralis), in conjunction with wild population monitoring, and collation and analysis of long-term data, to investigate: (1) how increased overwinter temperatures affect wall lizard reproductive success, and hormonal and behavioural responses to stress in captive and wild populations, and (2) how historical patterns of winter-warming have influenced the distribution and phenology of British reptiles to date. This project will involve field and lab-based work, as well as the assembly of novel and exciting datasets from public records. The Amphibian and Reptile Conservation Trust will serve as a CASE partner and will provide further training opportunities.

*Eligibility:* Applicants should hold a minimum of a UK Honours Degree at 2:1 level or equivalent in subjects such as Zoology, Animal Behaviour, Conservation Science, or Biology. Past field or laboratory research experience is an advantage but will not be used as an exclusion criteria for shortlisting. International applicants welcome - top-up fees will be waived (i.e. funding will cover all international fees).

Direct any enquiries to me, Dr Kirsty MacLeod (kirstyjmacleod@gmail.com). More info on me and my group at kjmacleod.weebly.com

Kirsty MacLeod <kirstyjmacleod@gmail.com>

## Bristol NHML EvolutionOntoLand

Project Title: Convergent genome evolution in the conquest of land by animals Institution: University of Bristol Supervisors and Institutions Jordi Paps, School of Biological Sciences, University of Bristol Davide Pisani, School of Biological Sciences and School of Earth Sciences, University of Bristol Philip Donoghue, School of Earth Sciences, University of Bristol Greg Edgecombe,

Department of Earth Sciences, The Natural History Museum, London

Funding Status: Funding is in competition with other projects and students (NERC DTP)

Project Description The colonisation of land by life is one of the major evolutionary transitions in the history of the planet which dramatically shaped modern terrestrial ecosystems. Despite its key ecological and evolutionary importance, the genetic and cellular basis of terrestrialisation and its timing(s) are not well understood. This project brings together a team of expert zoologists, palaeontologists, genome biologists, and developmental biologists. Our main objective is to apply an integrative approach based on the "from genes to ecosystems" framework to understand the genetic and cellular basis, as well as the environmental factor underpinning the adaptation of animal life on land. We will use the latest genomic approaches and comparative methods to disentangle the multiple transitions from water to land in animals.

Project Aims and Methods Following the "from genes to ecosystems" integrative philosophy and exploting available data, we will identify the genome-wide gene changes, their biological functions, and their mode of evolution (gene gains, losses, horizontal genetic transfer, etc) during terrestrialisation, and reconstruct a precise timescale of the transitions to land to identify the speed of these transitions as well as their ecoenvironmental contexts.

We will apply an evolutionary genomics pipeline developed in the host lab, published in Current Biology, Nature Communications, and Nature Ecology and Evolution, to infer the node of origin of a gene family. The biological function of genes of interest (e.g., gained during terrestrialisation) will be interrogated via Gene Ontology. For molecular dating, the gene family members will be aligned with MAFFT, ambiguous regions will be trimmed with BMGE, and trees will be inferred with Phylobayes. Molecular dating of the trees, using fossils and geological events to define soft minimum and maximum constraints, will be done with MCMCTree within PAML. Environmental conditions for the different dates will be mined from the literature. The student will contribute to the execution of these analyses and the overall design of the project, bringing in their own ideas and informing the research direction.

Candidate requirements The candidate should have a deep interest in evolutionary biology, and an eagerness to learn computational methods and programming. Knowledge of molecular biology, invertebrate diversity, or palaeontology would be advantageous but is not required. We welcome and encourage student applications from under-represented groups. We value a diverse research environment.

Project partners This project has an exciting partner in the Natural History Museum London (NHML). The NHML is a research institution with international reputation that hosts over 350 scientists. Its researchers hold unique expertise in evolutionary biology, biodiversity and phylogenetics, supported by the Museum's core research labs and vast biological collections. An acclaimed research institution, the NHM publishes over 700 scientific papers a year with international collaborators. The collections hold 80 million objects that span 4.5 billion years, from the formation of the solar system to the present day. The student will work closely with Dr Greg Edgecombe FRS, who will provide opportunities to access collections and collaborate and network with other researchers in the NHM.

Training You will be working at the forefront of an active area of research and will be trained in phylogenetics, phylogenomics, comparative genomics, and animal evolution. You will learn how to generate, analyse, and interpret datasets using cutting edge sequencing methods and computational techniques. Finally, you will learn how to present challenging ideas to the scientific community and the public through the publication of articles in scientific journals and presenting your work at international conferences. All these are extremely valuable transferrable skills, and you will be fully equipped for a career in both academia and the private sector. Contact Name Jordi Paps Contact Email jordi.paps@bristol.ac.uk Link to More Information https://www.findaphd.com/-phds/project/convergent-genome-evolution-in-the-conquest-of-land-by-animals/?p136987 Jordi Paps <jordi.paps@bristol.ac.uk>

## ColoradoU Denver EvolutionaryPhysiology

University of Colorado, Denver: PhD position in Evolutionary Physiology

The Ragland lab at the University of Colorado, Denver is seeking a PhD student to work on an NSF-funded project investigating the plasticity and evolution of transcriptional dynamics across variable environments. We welcome students who wish to develop new and original research questions within this general framework. There is also an important educational component to

this work, and the selected student will work with our lab team to develop and deploy a Course-based Undergraduate Research Experience (CURE) with the express goal of increasing retention and breaking down barriers to further research experiences of underrepresented groups.

Current research in the lab also includes the genomic architecture of rapid adaptation, effects of changing environments on population seasonality and dynamics, and the developmental regulation of suspended animation during dormancy. Various current and past student projects have included field ecology, population genomics, and developmental transcriptomics. For more information please visit our webpage: https://-raglandlab.wordpress.com Ideally, applicants will have a solid background in either evolutionary biology, genetics, or comparative/ecological physiology, and be willing to learn new skills or hone existing skills in in one or both of two areas: 1) bioinformatic and statistical analysis of 'omics data sets, and 2) wet lab molecular biology (including NGS library preparation) or fly developmental biology (including microdissection, confocal microscopy, etc.). Strong scientific curiosity and a collaborative mindset are a must. Competitive stipends will support students with a combination of teaching and research assistantships.

The Ragland lab is housed in the Department of Integrative Biology on the downtown CU Denver campus. As the name suggests, our department has a broad range of interests, with strengths in developmental genetics, ecology, computational biology, and comparative physiology. The Ragland lab is a friendly and diverse group, with interests spanning the realms of evolutionary genetics and comparative physiology. We ask questions that cross biological disciplines and collaborate broadly to tackle these questions from multiple angles. We encourage a welcoming and inclusive environment and like to mix in some play with work, taking advantage of the world class outdoor opportunities on the Front Range and the fantastic city amenities in Denver. There will also be opportunities to interact with students, postdocs, and faculty at the CU Denver medical campus and other nearby universities in the Rocky Mountain region.

The deadline for applications to the PhD program at CU Denver is 1 December. See the following website for program details:

https://clas.ucdenver.edu/integrative-biology/-academics/graduate-programs Please make initial contact with Greg Ragland at gregory.ragland@ucdenver.edu to discuss possible positions. Including a CV and a cover letter addressing your research and educational background and career goals will help to get the conversation started.

"Ragland, Gregory" <GREGORY.RAGLAND@UCDENVER.EDU>

## DTU BioinformaticsAncientDNA

DTU Health Tech is looking for a qualified candidate for a vacant PhD position in bioinformatics. In this position, you will develop algorithms and computational methods to deal with the analysis of large datasets from modern and ancient sources. More specifically, these algorithms will be aimed at analyzing relationships between ancient and modern populations. The bioinformatics section of DTU Health Tech performs research in the areas of different metagenomics, cancer genomics and population genomics.

Responsibilities and qualifications

Current bioinformatics algorithms and software are often ill-equipped to deal with DNA extracted from ancient sources. This ancient DNA shows high levels of fragmentation and accumulated chemical damage. Furthermore, ancient sediments often contain DNA from multiple species and often multiple individuals. Fortunately, several problems pertaining to ancient DNA can be described in a maximum-likelihood framework and computer science techniques can help us to solve such numerical problems efficiently via numerical algorithms and data structures. You will work in collaboration with other partners including the University of Copenhagen and McMaster University in order to develop the next generation of algorithms and software applied to DNA extract from fossils, ancient soils and sediments.

You must have a two-year master's degree (120 ECTS points) or a similar degree with an academic level equivalent to a two-year master's degree in addition to a bachelor's degree (180 ECTS points).

Ideally, your degree should be in computer science, mathematics or biological science with a focus on quantitative and mathematical aspects.

More specifically you should ideally have the following qualifications:

* Knowledge of a programming language like Python, Perl, C++ and/or Java (C/C++ is preferred) * Ability to work in a UNIX environment, ideally in a high-performance computing environment * Thorough understanding of basic algorithms and data structures used in computer science * Knowledge of probabilities and

statistics * Firm grasp of first-year university mathematics (differential calculus/linear algebra) * Experience in bioinformatics and knowledge of metagenomics are a plus * Expertise in next-generation sequencing data generation and processing are also a plus

The language of communication at DTU is English.

Application Apply no later than 12 December 2021

Apply at https://www.dtu.dk/english/about/-job-and-career/vacant-positions/job?id=8741fe36-7c69-4955-9e0b-bf5574dc3af6 Gabriel Renaud <gabriel.reno@gmail.com>

## DurhamU 2 EvolGenomics

Several competitive PhD studentship opportunities are available in evolutionary genomics and molecular ecology in the Welch Lab at Durham University, in the UK. These 3.5-year fellowships provide a tuition fee waiver, a competitive living stipend, and a considerable research allowance. For more information about these projects and how to apply see https://sites.google.com/site/andreannajwelch/-jointhelab/phd-studentship-opportunities or contact Dr. Andreanna Welch at a.j.welch@durham.ac.uk.

Durham University is consistently rated as one of the top 100 universities in the world. Located in northeast England, the university is situated near the stunning Durham Cathedral World Heritage Site and lies within a 15-minute train ride of the thriving city of Newcastle. The department of Biosciences offers a research-driven environment with projects ranging from the cellular to the ecosystem level. The Ecology, Evolution, and Environment subgroup provides a supportive, diverse, close-knit community of PIs, Postdocs, PhD and MS students. We have access to on-site Next-Gen Sequencing facilities, sophisticated and recently updated supercomputing resources, and a diverse seminar series with local and international speakers.

AVAILABLE PROJECTS (4 total, including co-supervised projects):

[1] HOW TO BE SUCCESSFUL IN A CHANGING CLIMATE: THE EVOLUTION OF CAPITAL AND INCOME BREEDING STRATEGIES IN SEALS

Primary supervisor: Dr. Andreanna Welch (Durham University) Co-supervisors: Prof. Prof Rus Hoelzel (Durham University) Eligibility: Anyone can apply Application Deadline: Not yet announced, but likely 5 January, 2022 or shortly thereafter

Species in Polar Regions are very sensitive and have evolved specializations over time to successfully survive and reproduce in their unique habitats. Ongoing global climate change is disproportionately affecting polar species, and the question of whether they can cope and adapt to such changes is urgently pressing. Seals are often considered icons for how organisms evolve to adapt to their environment, and they have developed different strategies to successfully produce and raise offspring. The females of some species, called capital breeders, build up large fat reserves, allowing them to give birth and nurse their pups for periods of up to several weeks without feeding. These females may transfer as much as 30% of their body mass to their pups, and seal milk contains the highest levels of fat of any mammal species. The females of other species, called income breeders, don't build large fat reserves, and instead regularly leave their pup to forage. Because income breeding is relatively much more common, it has been hypothesized that capital breeding may have evolved to deal with limited or unpredictable food availability. With the global climate changing rapidly, and industrial fishing impacting marine food webs, food resources for seals around the world are likely changing in both their predictability and abundance. An understanding of the physiological basis for reproductive strategies could provide important insights for understanding the ability of seals to adapt to environmental changes and for managing healthy seal populations for the future.

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

1) What is the evolutionary history of phocid seals and what are the phylogenetic relationships between capital and income breeding species? How has past climate change influenced their evolution? 2) Have strictly capital breeding species evolved specially adapted cellular pathways to convert energy to fat, store it, and then mobilize it to produce milk with extremely high fat content? 3) Does differential gene expression play a role in facilitating the use of mixed strategies?

[2] UNDERSTANDING THE ROLE OF MOSQUITO VECTORS IN FOOD WEBS OF AFRICAN BIRDS AND BATS

Primary supervisor: Dr. Andreanna Welch (Durham University) Co-supervisors: Prof. Heather Ferguson (University of Glasgow) Eligibility: Anyone can apply Application Deadline: 7 January 2022, 17:00 GMT

Mosquitoes are the deadliest animals on the planet, due to their role as vectors of a number of serious diseases.

While progress has been made in understanding the ecology of the mosquitoes themselves, there are still many gaps to fill. For example, the natural predators of adult mosquitoes are relatively poorly known, as is the role of these predators in controlling mosquito populations. Bats especially are known to be voracious predators, and may be able to consume 600 mosquitoes per hour, however it remains unclear which species they may be consuming (disease vectors or those that are relatively benign). Our DNA sequence data from bird and bat faecal samples collected from Cameroon show that at least 15 species of bats and birds consume mosquitoes from five different genera, including

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## DurhamU BumblebeeEvolution

https://www.findaphd.com/phds/project/floral-preferences-of-bumblebees-across-a-range-of-european-climates/?p137456 Floral preferences of bumblebees across a range of European climates

Deadline: 7th January 2022

To apply:https://www.iapetus2.ac.uk/how-to-apply/ Background. Bumblebees are agriculturally important pollinators, but are currently declining in abundance in the UK and around the world, in part due to climate change (Soroye et al. 2020). Understanding these declines requires research on the biology and ecology of these species. Bumblebees are thought to be generalists, pollinating a variety of flower species. However, our preliminary observations conducted in Durham in summers 2020 and 2021 indicate that different bumblebee species prefer different plants (see also Sikora et al. 2020). Bumblebees have been a preferred insect model for neuroethology and sensory neuroscience, and a wealth of earlier work has focussed on the importance of visual cues and nectar/pollen reward for foraging honeybees and bumblebees (Latty and Trueblood 2020). In contrast, the importance of floral smells is less well known, although some works report the essential role of flower volatiles in bumblebees??? floral choice (Galen and Kevan 1983; Suchet et al. 2011; Haber et al. 2019). This project will investigate olfactory preferences of commonly occurring bumblebees (e.g. Bombus terrestris, Bombus pascuorum and Bombus lapidarius) to naturally-occurring floral volatiles, and how these preferences are affected by climatic conditions and background plant communities in Norway (Kl??fta), UK (Durham and Stirling), Germany (W??rzburg), Italy (Milan) and Portugal (Braganca). We expect the plants that the bumblebees forage on to differ between these location, due to different climatic condition. We hypothesise that, despite the differences in plant species, the key components of floral bouquets will be very similar across test locations.

Aims. 1) To identify plants that bumblebees forage on in the five countries, to establish plant preferences for bumblebee species; 2) Collect floral volatiles from the plants identified in Aim 1, as well as florals that bumblebees do not forage on, as controls; analyse these volatiles by GC/MS ; 3) Establish behavioural preferences of bumblebees in response to full floral bouquets and components of bouquets, fractions and synthetic components of that are specific for focal plant species.

Methodology: Bee and plant collections will be conducted in the areas around Durham, Stirling, Kl??fta, W??rzburg, Milan and Braganca in March-September during the local bumblebee foraging periods. The student will be advised and assisted during field collection by OR and local members of the supervisory team. Student will be trained to identify plants and bumblebees via morphological cues and DNA barcoding. Floral volatiles will be collected at the same time as bumblebees by using standard volatiles traps, and will be analysed by the student via gas chromatography-mass spectrometry in TS laboratory. Behavioural olfactory assays on bees will be conducted in the field or either in the glasshouse at the Biocentre, University of W??rzburg or in a glasshouse at Durham Botanical garden. The bees will be given a choice between 2 stimuli, or stimulus and a control, and their preference for a smell will be inferred from the tendency of a bee to land at the stimulus.

Training and skills: The student will receive training: 1) by supervisors with complementary skills and expertise; 2) by collaborators and postdocs in the seven participating institutions; 3) by attending summer courses, conferences and Durham-run training events; 4) by participating in regular public outreach activities; 5) by helping OR to supervise UG students; 6) by presenting their work at lab meetings and conferences. The student will acquire knowledge and skills in: 1) insect chemical ecology and neuroethology; 2) gas chromatography/mass spectrometry and collection of volatiles; 3) bumblebee rearing; 4) identification of bumblebees and plants; 5) molecular biology methods; 6) cutting-edge techniques for behavioural analysis; 7) presentation and

scientific writing; 8) research supervision; 9) Impact and public outreach.

Requirements:

We are looking for an independent and enthusiastic student able to develop the project and drive it forward. Interest in sensory ecology, neuroethology, animal behaviour, chemical ecology and previous research experience are a plus.

You should be available to conduct field and lab work in the UK and in continental Europe. The peak time for field work is in March ??? September.

Further information:Informal enquiries ARE STRONGLY ENCOURAGED and

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## EBD-CSIC Spain TropicalBiodiversityGenomics

A 4-year PhD fellowship is now available in association with the funded project "Selection on a tropical elevational gradient" (PID2020-120115GB-I00). In this project we use genomics in combination with other tools such as field ecology, morphology, and population genetics to study the origin and**maintenance of biodiversity in tropical forests. What limits species' distributions? Which factors determine population structure in widespread, lowland tropical species? Is selection more efficient in high or low elevation populations? The study system involves small mammals in tropical east Asia, especially Borneo. The project is collaborative and includes students and researchers in Spain and Malaysia. The project involves fieldwork on the Sunda Shelf (most likely Borneo). The student is expected, with the support of the collaboration and the group, to produce science at an international standard to be published in international scientific journals. The student is expected to actively participate as a member of the group. The student must be eligible to enroll in a Spanish PhD program (and thus must poses a Masters degree). Certification in ethical handling of animals and experience in genetic/genomic analyses will be favorably considered.ï¿½ A functional level of English is necessary. The student will be expected to engage in short international stays (3 months).

The student will be hosted at the Estaciï¿½n Bioloï¿½gica de Doï¿½ana (CSIC), a research center Seville, Spain:

www.ebd.csic.es < http://www.ebd.csic.es >

You can find more information about our group at:

www.consevol.org < http://www.consevol.org >

I would be happy to answer any questions you may have and/ or to discuss in further detail the project.

To apply for the position, applications must be submitted through the central portal:

*http://www.aei.gob.es/portal/site/MICINN/-menuitem.dbc68b34d11ccbd5d52ffeb801432ea0/-?vgnextoid=4c6c68d98570c710VgnVCM1000001d04140aRCRD*
Best regards,

Jennifer Leonard.

Jennifer Leonard Conservation and Evolutionary Genetics Group Estaciï¿½n Bioloï¿½gica de Doï¿½ana Avd. Americo Vespucio 26 41092 Sevilla, Spain

www.consevol.org jleonard@ebd.csic.es

## Frankfurt ComparativeBiodiversityGenomics

Job Announcement ref. #12-21009

PhD Position in Comparative Genomics The Hiller Lab at the LOEWE Center for Translational Biodiversity Genomics (TBG) in Frankfurt, Germany is looking for an ambitious PhD student to investigate the genomic basis of phenotypic differences between vertebrates.

The Project We offer several projects that range from the development of new comparative genomic methods to accurately detect relevant genomic changes in big datasets to applying existing and new approaches to link phenotypic adaptations to genomic differences, which is a central goal in the genomics era. The PhD student is expected to capitalize on a powerful repertoire of Forward Genomics and other methods such as TOGA ((Tool to infer Orthologs from Genome Alignments) as well as available genome alignments and comparative data for hundreds of mammals and birds. A large list of interesting adaptations including metabolic, physiological and morphological traits in bats, dolphins, other mammals and vertebrates is available to be studied, and

choices can be influenced by the preference of the PhD student.

Our lab The mission of our group is to understand how nature's fascinating phenotypic diversity has evolved and how it is encoded in the genome. Work in the lab includes sequencing and assembly of reference-quality genomes, genome alignment and annotation, development and application of comparative genomic methods to discover differences in genes and cis-regulatory elements, and the use of statistical approaches to link phenotypic to genomic changes [1-9].

Our lab is part of TBG (https://tbg.senckenberg.de/) and Senckenberg Research Society, and is based near the city center of Frankfurt am Main, Germany. TBG provides access to cutting-edge computational (HPC clusters, genome browser) and lab infrastructure to sequence genomes. English is the working language in our lab. Senckenberg and TBG provide flexible working hours, an annual special payment, a company pension scheme, the Senckenberg badge for free entry in museums, the zoo, botanical garden and Palmengarten, a leave of 30 days per year, and a subsidy job ticket for public transport. Frankfurt is a vibrant and highly-international city at the heart of Europe that combines a skyscraper skyline with ample park and green areas.

Requirements

Applicants should have a degree in bioinformatics/computational biology, genomics or a related area, and a strong publication record. Solid programming skills in a Linux environment and experience with shell scripting and Unix tools are required. Previous experience in large-scale comparative genomic data analysis is an advantage.

Place of employment: Frankfurt am Main

Working hours: part-time (30 hours/week)

Type of contract: initially for 3 years, but funding is available to extend it further

Salary and benefits: according to the collective agreement of the State of Hesse

(pay grade E13 TV-H, 75%)

The position is fully funded and should ideally start as soon as possible.

The employer is the Senckenberg Gesellschaft für Naturforschung who supports equal opportunity of men and women and therefore strongly invites women to apply. Equally qualified handicapped applicants will be given preference.

How to apply

Please send your application, mentioning the reference of this job offer (ref.#12-21009), by e-mail to Michael Hiller (michael.hiller@senckenberg.de) and recruiting@senckenberg.de. Alternatively use our online application form on https://www.senckenberg.de/en/-career/apply-online/. The application should include a CV with publication list and contact information for at least two references, and a summary of previous research experience (max 1 page), and copies of certificates, transcripts and grades.

The initial application deadline is December 12th, 2021, but the search will continue until the position has been filled.

For more information please contact Prof. Dr. Michael Hiller, michael.hiller@senckenberg.de or use the following link: https://tbg.senckenberg.de/personen/hiller/ Recent publications

[1] Blumer et al., Gene losses in the common vampire bat illuminate molecular adaptations to blood feeding. bioRxiv, 2021.2010.2018.462363 (2021).

[2] Jebb et al. Six reference-quality genomes reveal evolution of bat adaptations. Nature, 583, 578-584, 2020

[3] Huelsmann et al. Genes lost during the transition from land to water in cetaceans highlight genomic changes associated with aquatic adaptations. Science Adv, 5(9), eaaw6671, 2019

[4] Hecker et al. Convergent gene losses illuminate metabolic and physiological changes in herbivores and carnivores. PNAS, 116(8), 3036-3041, 2019

[5] Roscito et al. Phenotype loss is associated with widespread

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## ImperialCollege London PollinatorEvolution

PhD Advert: Arctic plant-pollinator trait responses to climate change Supervisor: Dr Richard Gill (Imperial College London, UK)

Our understanding of how plant-pollinator relationships are being affected by climate change remains in its

infancy. Filling this evidence gap requires us to understand the eco-evolutionary processes by which populations of plants and their insect pollinators are dynamically responding, and how this translates to plant-pollinator network evolution under climate change. To do this, we must integrate plant and pollinator trait response data with detailed observations of interactions. Bringing such data together will enable us to investigate how trait plasticity to environmental variation (and subsequent changes to functional trait distributions) mediates co-evolved relationships, and determines both interaction turnover and co-extinction risks.

This project will involve fieldwork studying an Arctic plant-pollinator community located in Lapland (Sweden) along an elevational gradient. The student will study plant-pollinator interactions across an environmental gradient. Using a space-for-time substitution approach, the student will investigate responses across a [localised] climatic range. Through a complement of field and lab work, the student will collect data on how plant and pollinator [bumblebee] traits vary within and between species, primarily analysing how different aspects of temperature determine this. This interdisciplinary project will be co-supervised by Prof. Phil Stevenson (Kew Gardens, UK) & Dr Keith Larson (Umea University, Sweden), and will further benefit from collaborators: Dr Jacob Johansson (Lund University, Sweden); Jason Tylianakis (Canterbury University, NZ) and Andrew MacDougal (University of Guelph, Canada). The student will be based at the Silwood Park campus of Imperial College and hosted by the Gill lab.

For further details about the project:

https://www.imperial.ac.uk/media/imperial-college/-grantham-institute/public/dtp/2022-projects/-2022_57_DoLS_Gill.pdf More information and how to apply:

https://www.imperial.ac.uk/grantham/education/-science-and-solutions-for-a-changing-planet-dtp/-studentship-opportunities/#projects2022 The PhD is competitively funded. To be eligible for a full award they must have either British Citizenship, or Settled status in the UK. Deadline for applications is midday (12pm GMT) 7 January, 2022.

Regards,

Rich Gill r.gill@imperial.ac.uk

Imperial College London Silwood Park Buckhurst Road, Ascot Berkshire, SL5 7PY Imperial website: www.imperial.ac.uk/people/r.gill Research group website: www.gillinsectresearch.com Twitter: @richjgill

“Gill, Richard J” <r.gill@imperial.ac.uk>

## IST Austria EvolutionaryBiology

The Institute of Science and Technology Austria (IST Austria) is looking for highly qualified candidates to apply for our PhD program. We offer fully-funded PhD positions in the natural and mathematical sciences in a world-class research environment on the outskirts of Vienna. The research groups that might interest evolutionary biologists include:

Nick Barton Evolutionary theory/Analysis of a snapdragon hybrid zone Sylvia Cremer Social immunity Calin Guet Systems and synthetic biology of genetic networks Max Jï¿½sch Neuroethology Fyodor Kondrashov Evolutionary genomics Matthew Robinson Medical & statistical genomics Lora Sweeney Evolution and development of motor circuits Gasper Tkacik Information processing in biological systems Beatriz Vicoso Sex chromosome evolution Daniel Zilberman Epigenetics and chromatin

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

Students with a bachelor’s or master’s degree in a relevant field are encouraged to apply. We offer internationally competitive salaries, full health benefits, and subsidized on-campus housing in the first year.

For more information about thePhD program and application process, as well as faculty profiles, please visit our website at http://phd.pages.ist.ac.at< http://phd.pages.ist.ac.at/ >, or come to our virtual Student Open Day on November 26th 2021.

The deadline for PhD applications is January 8th 2022 for a start date in September 2022.

Nick Barton

Institute of Science and Technology Austria

Nick BARTON <nick.barton@ist.ac.at> Nick BARTON <nick.barton@ist.ac.at>

## JohnInnesCentre UK AlpineOrchidEvolution

As part of the NERC-funded ARIES doctoral training programme, we seek a PhD student for the project "Hybridization and climate change in Alpine orchids". This is a fully funded, 3.5-year PhD project open to both UK and international students who are holders of a university degree (a Masters degree is not required). The primary supervisor is Dr. Kelsey Byers (John Innes Centre), with secondary supervisors Dr. C van Oosterhout (University of East Anglia) and Enrico Coen (John Innes Centre). The project is hosted at the John Innes Centre in the Byers Lab and also includes extensive fieldwork in Switzerland and Italy. You can learn more about the lab here: https://www.jic.ac.uk/people/kelsey-byers/ Hybrid populations of orchids in the European Alps produce a "natural laboratory" that enables us to study adaptive evolution in response to rapid environmental change. Alpine ecosystems are under severe threat of global warming and environmental change. Meadows on different mountains provide an outstanding study system to examine response to environmental change in a naturally replicated design. This allows us to examine parallel evolution in response to environmental change across hybrids and their ancestor species.

The goal of this project is to understand how species persist in fragile habitats despite the challenges of hybridization and climate change. The aims are: (1) determine ancestry of hybrid orchids; (2) understand barriers preventing species collapse between parent species from (1); and (3) understand how these species may be responding to past and future climate change.

This project combines various techniques, including field surveys of orchid populations, sequencing and analysis, and use of historical records of orchid occurrence and climate. The student will spend part of each summer in the European Alps surveying populations for flowering time and climate factors and collecting tissue for DNA analysis of hybrids and their parent species. Fieldwork will also include collection of pollinators and fruits to determine isolating barriers between parent species besides flowering time. By combining historical climate and occurrence/flowering time data, the student will determine the historical effects of climate change on populations and their potential for hybridization. Using spatial modeling/GIS, the student will also predict the effects of future climate change.

The student will have the opportunity for fieldwork in the Alps as well as training in methods in both the field and lab settings. This includes methods in genetics, entomology, botany, and bioinformatics. Professional training in scientific writing and presentation, as well as development of knowledge in the field through reading, are also an integral part of this project.

The ideal student for this project would have a background in evolution, ecology, and/or genetics. Experience working with plants and/or insects is a plus. We seek an enthusiastic, collaborative individual who is excited by interdisciplinary research!

We particularly encourage applications from individuals often underrepresented in STEM, including racial and ethnic minorities, Indigenous, and BAME individuals; LGBTQIA+ individuals; individuals with disabilities, Deaf individuals, and those with chronic illness(es); and women and gender minorities. Dr. Byers is committed to maintaining a respectful, inclusive, and friendly working environment for all staff and students, as well as promoting your personal and career development.

Interested or want to know more? Feel free to contact Dr. Kelsey Byers at Kelsey.Byers@jic.ac.uk. Applications can be made directly here: https://-www.aries-dtp.ac.uk/studentships/hybridization-and-climate-change-in-alpine-orchids/ but we encourage pre-application contact where possible. Applications are due 12 January 2022 (midnight UK time).

Best,

—- Kelsey

Kelsey J.R.P. Byers Group Leader John Innes Centre Kelsey.Byers@jic.ac.uk twitter: @plantpollinator any/all pronouns ok (while I may read & send emails at odd hours, I don't expect the same of anyone else)

"Kelsey Byers (JIC)" <Kelsey.Byers@jic.ac.uk>

## LMU Munich BehaviouralSpeciation

We are looking for a PhD student to investigate the genes underlying behavioral isolation and speciation in a recent radiation of *Chorthippus* grasshoppers. The student will join Dr. Ricardo Pereira's research group at Ludwig-Maximilians-Universität (LMU) Munich, and will work closely with Dr. Holger Schielzeth at Friedrich Schiller University (FSU) Jena; both in Germany.

The 'omics' era reveals an increasing number of species that are practically indistinguishable in morphology, ecology or even in genetics, despite being reproductively isolated from one another in sympatry. Such species complexes present valuable study systems for evolutionary biologists because the behavioral traits that maintain species boundaries can directly be observed. We will use sympatric grasshopper species of the genus *Chorthippus* that have radiated under pervasive gene flow ( https://doi.org/10.1111/mec.15695) to: 1) test if historical periods of allopatry facilitated the evolution of behavioural isolation; 2) test if a genetic association between male cues and female preference facilitates behavioral isolation in the face of gene flow; 3) test if gene flow has played a role in generating a new hybrid species.

This research program will train a PhD student in population genomics, QTL analyses, and behavioral essays. Therefore, any training in related fields (experimental hybridization, behavioral experiments, next generation sequencing, and bioinformatics) is highly desirable. The successful student will have (or soon have) completed their Master's degree in a relevant discipline.

The student will be integrated within the Division of Evolutionary Biology (http://www.evol.bio.lmu.de), and will be part of vibrant international communities of scientists working on related fields, such as speciation genomics, behavioral isolation, and comparative genomics. The working language of the lab and the Division of Evolutionary Biology is English. The position is funded by a DFG grant (Porous species: using gene flow to uncover the genes maintaining behavioral isolation) awarded to Drs. Pereira and Schielzeth. Salary is paid according to the German salary scheme for the public sector for doctoral research (65% E13 TV-L) and is guaranteed for at least 3 years. The successful applicant would start around March 2022 in order to match the required field work. Further information and questions should be directed to Ricardo Pereira (ricardojn.pereira@gmail.com).

Applications, made up of a *single pdf* including: i) A letter of motivation, including a brief statement of how the applicant might approach the project ii) A current CV (including grades and experience with laboratorial and bioinformatics work) iii) The names and contact details of two referees. should be sent to ricardojn.pereira@gmail.com with the subject header "POROUS PHD" by 29th November 2021.

Ricardo J Pereira, PhD Group Leader, Hybridization and Speciation

Division of Evolutionary Biology Faculty of Biology II Ludwig-Maximilians-Universität München Grosshaderner Strasse 2 82152 Planegg-Martinsried Germany

office: B 01.003 phone: +49 (0)89 / 2180-74105

Ricardo Pereira <ricardojn.pereira@gmail.com>

## Mainz EvolutionOfGeneExpression

Dear all,

We have fantastic fully-funded opportunities in our PhD programme available! We are looking for candidates with an interest in evolution and/or molecular biology.

The PhD Programme "Gene Regulation in Evolution" (GenEvo) in Mainz, Germany, is looking for new PhD student candidates. Check out our poster: https://www.genevo-rtg.de/fileadmin/_processed_/c/-6/csm_IMB_Genevo_Poster_2021_V2_3c3e73470a.jpg In the vivid network of the programme, scientist are researching together on the core question of how complex and multi-layered gene regulatory systems have evolved. Experts in their field support & train our PhD students in their cross-over research as well as their personal development.

Find more information on our programme and the application process on our website: https://www.genevo-rtg.de/ Please apply by 20 January 2022.

We are looking forward to your applications!

Best wishes, Ann Kathrin

Jun.-Prof. Dr. Ann Kathrin Huylmans

Institute for Organismic & Molecular Evolution (iomE) Johannes Gutenberg-Universitï¿½t Mainz Hanns-Dieter-Hï¿½sch-Weg 15 55128 Mainz

E-mail: a.huylmans@uni-mainz.de

Ann Kathrin HUYLMANS <annkathrin.huylmans@ist.ac.at> Ann Kathrin HUYLMANS <annkathrin.huylmans@ist.ac.at>

## MichiganStateU SeaLampreyDietAnalysis

Master's Student / Temporary Research Technician in Molecular Diet Analysis, Department of Fisheries & Wildlife, Michigan State University

The Robinson lab in the Department of Fisheries and Wildlife at Michigan State University expects to recruit a Master's student to investigate diet composition and prey preferences of sea lamprey in the Great Lakes, pending funding availability. The successful applicant will use molecular diet analysis approaches to examine the recent feeding history of sea lamprey juveniles and adults collected from the Great Lakes and conduct lab experiments to assess the retention and detectability of prey DNA in the sea lamprey digestive tract. This research project represents a collaboration among scientists at MSU, the U.S. Geological Survey, the University of Vermont, Fisheries and Oceans Canada, and the U.S. Fish and Wildlife Service. Responsibilities of the position include: leading lab experiments, curating, processing, and archiving samples received from collaborators, data analysis, and communication of research findings. Some in-state travel will be required for lab experiments conducted at U.S. Geological Survey, Hammond Bay Biological Station (Millersburg, MI; approximately 2 months in the Spring of 2022), with funding for temporary housing and a meal allowance during this travel provided by the project. There are also likely to be opportunities for short-term travel to assist collaborators with field collections. This position would provide the successful applicant with training and experience with molecular lab techniques, bioinformatic analysis of high-throughput sequencing data, and statistical analysis of diet composition data. Other opportunities for professional development associated with this project include internal workshops on bioinformatics and cluster computing, course-based training and hands-on experience with outreach and science communication, and opportunities to present at scientific conferences. The duration and start date for this position are flexible, although a start date in the Spring of 2022 is preferred. The initial appointment for this position would be as an hourly research assistant (during the Spring and Summer of 2022, hourly rates competitive and depending on previous experience), with a transition to a Master's student position in the MSU Department of Fisheries and Wildlife in the Fall of 2022.

Our research team is committed to promoting diversity in science, individuals from underrepresented or historically marginalized groups are particularly encouraged to apply. In both our lab and in the Department of Fisheries and Wildlife, we embrace and encourage diversity in many forms and are committed to inclusivity among our community members. Our goal is to nurture a community where everyone can develop their full potential in an atmosphere of collaboration and respect.

Applicants should have a B.S. in Biology, Ecology, Genetics, or a similar field. The ideal candidate will have interests in population genetics, invasive species control, and/or fish biology. Previous experience with genetic lab techniques (DNA extraction, PCR, etc.) and familiarity with the R statistical computing environment are strongly desired. Experience or training in bioinformatics and cluster computing would be beneficial, but is not required. The ideal applicant would be highly motivated, with a strong work ethic, collaborative mindset, and well-developed interpersonal skills.

Interested parties should submit their applications throughcareers.msu.edu(search for posting #747986). Application packets should include: i) a cover letter detailing previous experience and accomplishments, the applicant's interest in the advertised position, and any relevant skills, ii) a current CV, including GPA and GRE scores (if available), and iii) contact information for three individuals willing to provide letters of recommendation. All applications must be submitted through the website above, applications submitted via e-mail will not be considered. For questions about the position or application process, contact Dr. John Robinson (jdrob@msu.edu). Position is open until filled, review of applications will begin December 12, 2021.

Michigan State University is requiring students, faculty and staff (this includes Visiting Scholars) to be vaccinated against COVID-19, with limited medical and religious exemptions. Additionally, all individuals are required to wear a mask indoors on any MSU property.

These decisions were made after careful consideration of the scientific data on the delta variant, which is driving the rising number of COVID-19 cases (and in some areas hospitalizations) across the state and country. The latest CDC data show the variant is more infectious and, in some cases, can be transmitted by vaccinated individuals. Our goal with this requirement is simple: protect students, faculty and staff,

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## NTNU Norway
## EvolutionSocialBehaviour

PhD position on The Evolutionary Ecology of Social Behaviour, Centre for Biodiversity Dynamics (CBD), NTNU, Trondheim, Norway

General aim of the project: Predicting responses to a changing environment is currently one of the biggest challenges in biology. The realization that evolutionary change can rapidly affect ecological and demographic processes, and thus determine the ability of populations to cope with environmental change, has led to a rapid increase in the number of studies focusing on the feedbacks between ecology and evolution (eco-evolutionary dynamics). Surprisingly, even though competition, cooperation and sexual reproduction are key ecological processes determining phenotypic evolution and the size of populations, classic theory on the evolution of social behaviour has not been fully integrated within the eco-evolutionary dynamics paradigm. There is thus a huge gap in our understanding of eco-evolutionary dynamics, which hinders our ability to predict how populations will respond to the rapid environmental change currently faced by many organisms. This project will help build this missing bridge between social behaviour and eco-evolutionary dynamics research using a unified framework based on behavioural ecology theory on social traits, quantitative genetic models providing statistical descriptions of the responses to selection, and population projection models focusing on stochastic population dynamics. We will focus on a house sparrow meta-population on Norwegian islands that has been monitored since the early 90s. The project will involve analyses of existing data and fieldwork.

Accordingly, the main aims of the PhD position are 1) to quantify how social interactions affect the reproductive success of individuals; 2) to quantify the spatial and social structure of house sparrows in different island populations; and 3) to quantify how the patterns of social interactions affect population dynamics and how population dynamics affect the patterns of social interactions. These aims will be achieved using an exceptional multi-year dataset from a house sparrow meta-population in Norway.

The position will suit a PhD candidate who is keen to learn advanced statistical methods, and apply them to understand patterns, causes and consequences of phenotypic variation arising in wild populations. It will provide complete doctoral education to obtain a doctoral degree, including primary research training, PhD-level credit courses, and appropriate teaching experience. Research training will include data management, statistical analyses including mixed models and capture-mark-recapture approaches, experience of field data collection, and experience of working within a collaborative research team.

Requirements: The successful candidate should have a quantitative methods background in evolutionary biology and behavioural ecology. The working environment is English.

Project group: The project is based on a recently funded proposal “Social dynamics and eco-evolutionary feedbacks in wild populations” by the Research Council of Norway. The PhD student will work in the Centre for Biodiversity Dynamics (CBD; https://www.ntnu.edu/-cbd ) at the University of Science and Technology (NTNU; https://www.ntnu.edu/ ) in Trondheim, Norway. The main supervisors will be Yimen Araya-Ajoy and Jonathan Wright and the PhD-student will collaborate closely with Myranda Murray, Jane Reid, Bernt-Erik SÃther and Henrik Jensen. CBD is a leading center on evolutionary ecology research and is located on the beautiful Trondheim fjord. The city has a very socially progressive environment, full of students and with great access to nature. For more information about the project, please contact yimen.araya-ajoy@ntnu.no and for more information about working in our group please contact myranda.murray@ntnu.no.

Project duration and starting date The successful candidate will be offered a fully-funded three-year PhD-position starting 01.01.2022. There is a possible extension to 4 years if the student is also involved in teaching. Apply here https://www.jobbnorge.no/-en/available-jobs/job/213942/phd-opportunity-on-the-evolutionary-ecology-of-social-behaviour Yimen Araya-Ajoy <yimen.araya-ajoy@ntnu.no>

## PennState InsectPlantTranscriptomics

Seeking PhD student in insect ecology and/or plant transcriptomics

The Tooker and Renner labs in the Department of Entomology at Penn State seek a PhD student to start in Fall 2022. We seek a highly motivated student with a record of success to conduct collaborative research on an NSF-funded project that will explore how plants make decisions. Previous research in the Tooker lab has determined that goldenrod plants (Solidago altissima) can detect both herbivore-induced plant volatiles (HIPV) and the putative sex pheromone of a gall-inducing fly that attacks S. altissima. The new project will determine how goldenrod plants prioritize their defensive responses after exposure to these cues and then damage from the associated herbivore species (the gall-inducing fly or a leaf beetle). The Tooker lab will conduct greenhouse- and field-based ecological studies that will be complemented by transcriptomic analyses of plant responses completed with the Renner lab. Students are strongly encourage to apply if they have interests in ecological work and have had some training in molecular skills generally, and ideally some transcriptomics experience. Alternatively, we would be happy to have students apply that are skilled with molecular techniques and would like to get involved in some ecological work. High-achieving international students are also encouraged to apply.

Application: Send a letter of interest and curriculum vitae to Tanya Renner (tur158@psu.edu), Department of Entomology, The Pennsylvania State University, University Park, PA. Students who apply to our department by 15 December 2021 and are highly ranked may be invited to our department's invitation-only Graduate Student Recruitment event, which will be held virtually in Jan 2022. Students that enroll will require successful completion of background check(s) in accordance with University policies. Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce.

"Renner, Tanya" <trenner@psu.edu>

## Praque AvianSongVariation

MSc project on bird's bioacoustics in Prague: Geographic song variation of male Tawny Pipits (Anthus campestris) in European populations

Dear interested MS students,

Based at Charles University (Prague, Czech Republic), we are seeking for highly motivated applicants to join our research group for a master's thesis on the geographic song variation of a migratory passerine bird.

The focus of the project will be to explore the intraspecific geographic song variation of the Tawny Pipit (Anthus campestris) in Europe. The selected candidate will assess the song differentiation among male individuals from four different populations in the Czech Republic, Italy, and Spain that differ in population density (high VS low) and population isolation (isolated VS continuous). However, we might also consider the possibility of using recordings available in public repositories (e.g., Xeno-Canto) to include individuals from some more distant locations.

This project is data-based, although the prospective student might have the chance to spend some time recording Tawny Pipits in our field site in the Czech Republic (an active surface coal mine area, the only Czech locality with isolated population of Tawny Pipits). Additionally, it can be discussed further the option of getting some more fieldwork experience by giving a hand in other projects of this group conducted in different field sites around the Czech Republic. Experience using bioacoustics software is welcome but not essential; if needed, the student can be trained in the use of specialized software for bioacoustics studies such as the widely used Avisoft and Raven and the up-and-coming Luscinia

**IMPORTANT: This project is only offered to master students (not BSc thesis nor candidates looking for a PhD project)

Please contact the head of the lab (Tereza Petrusková) if you wish to apply or want to find out more about it: kumstatova@post.cz.

-Do you want to know more about our research group? Check the following link: https://www.natur.cuni.cz/biology/ecology/research/ongoing-projects/bioacoustic-research-group/about
-Researchgate: https://www.researchgate.net/lab/-

Bioacoustics-Group-Tereza-Petruskova Javier Oñate Casado <javiatocha@gmail.com>

## PurdueU EvolutionInfectiousDisease

Graduate Positions in Ecology and Evolution of Infectious Diseases, Guaranteed TA/RAship for five years.

The He Lab at Purdue University investigates infectious disease dynamics by considering antigenic diversification and epidemiology. Specifically, we study how balancing selection drives eco-evolutionary dynamics of disease agents, using malaria antigens as a model system. We develop new epidemiological quantities to predict whether new disease variants would invade local transmissions, which would help establish new guidelines for intervention in malaria as well as other infectious diseases. We employ data science and mathematical approaches to the theory, and verify it via epidemiological and genomic sequencing data. Thanks to the collaborative nature of our work, we have established national and international research partners (University of Chicago, Louisiana State University, University of Melbourne, and Shaanxi Normal University). More info: www.qixinhe.net We are looking for highly motivated students who have acquired a strong quantitative background or prepare to obtain rigorous quantitative and computational skills training. Prior knowledge in molecular biology and genetics is preferred. Students are also encouraged to develop their own projects for the thesis, including similar questions on other disease agents. Students can expect to work in a lab that is collaborative, diverse, and welcoming. Prospective students should email heqixin@purdue.edu with the subject "Prospective Graduate Student," with a short description of research interests and CV.

Qixin He, Ph.D. Mary J. Elmore New Frontiers Assistant Professor Department of Biological Sciences Purdue University www.qixinhe.net heqixin@purdue.edu

## SouthernIllinoisU PlantEvolution

the School of Biological Sciences at Southern Illinois University Carbondale is recruiting a graduate student (doctorate level preferred) interested in herbarium science and plant evolutionary ecology to start in fall 2022. This position is funded in part by the NSF ADBC program to help digitize the SIU herbarium and the successful student applicant will work as a research assistant for this goal. The SIU herbarium is a primarily regional herbarium consisting of over 90,000 vascular plant specimens. It is currently being digitized for label transcriptions, barcodes, georeferences, and images as part of the SERNEC thematic collections network. The ideal candidate will have at least some familiarity with the basic operations of a herbarium and an interest in evolutionary biology.

In addition to this work, the student is expected to develop a research project investigating aspects of plant mating system evolution, ecological genetics, or evo/eco responses to climate change.

Applications will be reviewed continuously until February 2022. Underrepresented students are strongly encouraged to apply. Information about the graduate program in Plant Biology can be found at https://-plantbiology.siu.edu/graduate/. Interested students can send inquiries with CV and a brief statement of research experience and interests to:

Dr. Jenn Weber, jennifer.weber@siu.edu

Assistant Professor, SIU School of Biological Sciences

and

Dr. Kurt Neubig, kneubig@siu.edu

Associate Professor, Co-Curator SIU Herbarium, SIU School of Biological Sciences

"Neubig, Kurt M" <kneubig@siu.edu>

## SyracuseU MicrobialSystems

*Ph.D. Graduate Student Position in Microbial Systems, Syracuse University, NY, USA*

The Oliverio Lab (https://www.oliveriolab.org/) is a brand-new research lab at Syracuse University in the Biology department. Our lab is also affiliated with the 'Big Data and Data Analytics' research cluster at SU, a multidisciplinary cluster of research labs that collaborate on computational questions across genomics, bioinformatics, computer sciences, physics, and other disciplines. Our lab studies the ecological and evolutionary dynamics of microbial systems. We are interested in recruiting a graduate student to start Fall 2022.

*Overview of position*

The student will have considerable flexibility to develop their projects within one of our current systems of focus: (1) elucidating the ecological attributes and functional contributions of microbes to soil systems or (2) investigating the eco-evolutionary dynamics of microbial systems with synthetic sourdough starter microbial systems. For more details on our research program, please see: https://oliveriolab.org/research/ . Research will generally include a mix of computational work (developing and running bioinformatic pipelines, data analyses), lab work (including culturing and molecular techniques such as DNA extractions, library prep etc.), and field work, depending on the project. Additionally, the student will participate in writing, and disseminating results through peer-reviewed publications and conference presentations. The percent breakdown of computational versus wet lab work will depend on graduate student interest and project needs. The student will join a growing team of researchers and work on projects with collaborators that span multiple institutions.

*Qualifications*

The lab is seeking an enthusiastic and creative thinker who is interested in ecology, microbiology, bioinformatics, and/or genomics. The minimum qualification is a bachelor's degree in Biology or a related field.

Preferred qualifications include previous wet lab research experience (e.g. microbial culturing, high-throughput molecular methods); *and/or* quantitative experience (e.g. running bioinformatics programs, coding, familiarity with github etc.); and an interest in understanding the dynamics of microbial systems.

*To Apply*

Applicants should email Dr. Angela Oliverio (amoliver@syr.edu) before December 1st and ideally as soon as possible, to (1) introduce yourself, (2) outline how our research interests overlap, (3) provide some detail about your future career goals, and (4) include a short CV.

*Stipend and Benefits at SU*

*From * *https://thecollege.syr.edu/biology/graduate-overview/how-apply-ms-or-phd-biology/* At Syracuse, Biology Ph.D. students are supported financially for 5 years. This support typically comes in the form of a teaching assistantship and tuition scholarship during the academic year, with the student free to conduct their research full-time during the summer. Students may also be supported by their faculty research advisor's external grants or by Syracuse University Fellowships. For more information about potential external sources of funding, please refer to our Financial Assistance < https://thecollege.syr.edu/biology/graduate-overview/external-financial-assistance/ > webpage.

We believe our graduate students should be concentrating on their research, not on trying to pay the rent. The current minimum level of support for the 2020-2021 academic year is $27,270 for Biology Ph.D. students, with the possibility of additional summer support, currently at the level of $2,500. In addition, tuition is paid in full, and Syracuse University provides excellent health insurance options.

It is also worth noting that Syracuse, NY consistently ranks very high on affordability indices and has recently been named one of the best cities to live (e.g. https://cnycentral.com/news/local/syracuse-ranks-as-3-best-northeast-city-to-live-in-post-covid)

*More about SU and Syracuse*

Learn more about the graduate program in Biology < https://thecollege.syr.edu/biology/graduate-overview/ >. Application deadlines and information about Syracuse graduate programs can be found here < https://thecollege.syr.edu/biology/graduate-overview/how-apply-ms-or-phd-biology/ >. Syracuse University is an R1 research institution.

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## TowsonU 2 TurtleEvolution

MS Research/Teaching Assistantship ' Map Turtle Population Genetics and Microbiomes ' Towson University (Baltimore, MD)

A combined graduate teaching/research assistantship for a masters student is available beginning Fall 2022 working with Dr. Steve Kimble at Towson University. The student will characterize the population genetic parameters and microbiome of the Maryland Endangered Northern Map Turtle on the Susquehanna River. Summer field research will be based at Towson University's field station at Port Deposit, Maryland on the Susquehanna River. The students will also have the opportunity to interact with government agencies, NGOs, and businesses as they work to conserve turtles. The student will oversee data collection for this project while developing her/his/their own thesis project.

Students should be familiar with ecological research through coursework and field-based research experience. Candidates must be self-motivated, must be interested in using bioinformatic methods with large DNA sequence data, must be interested in DNA lab work, must be able to accomplish physically demanding fieldwork under long and sometimes difficult conditions (heat, humidity, sun, mosquitoes, poison ivy, et cetera), and must be able to navigate small boats on a large river. The successful candidate will be rewarded with working with turtles and spending time on the beautiful Susquehanna River! The student may spend some of Summer 2022 in the field on the Susquehanna River at the Towson University field station (housing provided) and then start the MS program on campus in Towson Fall 2022. The student would be expected to teach at least one or two semesters per year as a graduate student. The student would also have the opportunity to author at least one paper to be submitted for peer review in the scientific literature. More information on the MS program in Biology can be found at http://www.towson.edu/fcsm/departments/biology/gradbiology/ . Candidates must have a bachelor's degree in biology or related discipline with a GPA of 3.0 or better, have a strong interest in bioinformatics, be self-directed, and experience with scientific writing. Candidates will preferably also have experience with field work, small boats, and herps.

Interested students should send a C.V. and 1-page statement of research interests, goals and related experiences to Dr. Steve Kimble (skimble@towson.edu) no later than 1 December 2021. https://www.towson.edu/fcsm/departments/biology/facultystaff/skimble.html Steve Kimble

Clinical Assistant Professor, Towson University

skimble@towson.edu

https://www.towson.edu/fcsm/departments/biology/facultystaff/skimble.html —

MS Teaching Assistantship - Map Turtle Nesting Ecology - Towson University (Baltimore, MD)

A graduate teaching/research assistantship for a masters student is available beginning Fall 2022 working with Dr. Steve Kimble at Towson University. The student will conduct research on the nesting success of the Maryland Endangered Northern Map Turtle on the Susquehanna River. Nest success at the site is affected by climate change, invasive plants, and predation. Summer field research will be based at Towson University's field station at Port Deposit, Maryland on the Susquehanna River. The students will also have the opportunity to interact with government agencies, NGOs, and businesses as they work to conserve turtles. The student will oversee data collection for this project while developing her/his/their own thesis project.

Students should be familiar with ecological research through coursework and field-based research experience. Ideally, students should be interested in herps. Candidates must be self-directed and must be able to accomplish physically demanding fieldwork under long and sometimes difficult conditions (heat, humidity, sun, mosquitoes, poison ivy, et cetera). The successful candidate will be rewarded with working with turtles and spending time on the beautiful Susquehanna River! The student would ideally spend some of summer 2022 in the field on the Susquehanna River at the Towson University field station (housing provided) and then start the MS program on campus in Towson in the fall. The student would be expected to teach at least one or two semesters per year as a graduate student. The student would also have the opportunity to author at least one paper to be submitted for peer review in the scientific literature. Funding for this research is pending. More information on the MS program in Biology can be found at http://www.towson.edu/fcsm/departments/biology/gradbiology/ .

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## TunghaiU Taiwan 2 Biodiversity

Dear all,

As the partner of the TIGP Biodiversity Program (http://tigp-biodiv.biodiv.tw/), we would like to advertise 2-3 Ph.D. scholarship position opportunities for Biodiversity, Ecology, and Evolutionary Biology in the Center of Ecology and Environment, Tunghai University (THU) in Taiwan. The deadline is 1st February every year. The TIGP Biodiversity Program offers a unique opportunity for aspiring young scientists to receive multidisciplinary training with at least three-year scholarship (approximately 1,200-1,400 USD monthly stipend upon the ranking among applicants; living expanse in Taiwan approximately 600-1,000 USD per month). In Taiwan, the diverse terrestrial (https://conservation.forest.gov.tw/EN/0000075) and marine ecosystems (https://www.oca.gov.tw/en/home.jsp?id=99&parentpath=0,5) that harbor rich biodiversity are

attractive resources for the study of biodiversity, ecology, and evolutionary biology.

If you are interested in applying for a Ph.D. scholarship of TIGP Biodiversity Program, please do first contact a suitable advisor, who may fit your research interest, with some research ideas (e.g., one-page research proposal), your CV, a sample of your original writing (e.g. peer-reviewed paper or thesis), and your transcripts. Here is the list of the potential advisor for the PhD positions in THU:

1.Algae, Biomonitoring, and Conservation with eDNA (Dr. Shao-Lun Liu; email: shaolunliu@gmail.com; Info: http://algae.thu.edu.tw/lab/)

2.Biodiversity, Ecosystem Functions, & Ecosystem Services (Dr. Jyh-Min Chiang; email: jyhmin@thu.edu.tw; Info:

https://scholar.google.com/citations?user=-h7UU2TEAAAAJ&hl=en)

3.Conservation and Ecology of Coral Reef Fishes (Dr. Colin Wen; email: ckcwen@thu.edu.tw; Info:

https://sites.google.com/go.thu.edu.tw/fishlab/home)

4.Ecology of Fungi (Dr. Pi-Han Wang; email: phwang@thu.edu.tw; Info:

https://scholar.google.com/citations?hl=en&user=-TaYWixkAAAAJ)

5.Ecology, Physiology, and Behavior of Frogs (Dr. Yeong-Choy Kam; email: biyckam@gmail.com; Info:

https://www.researchgate.net/profile/-Yeong_Choy_Kam)

6.Forest Dynamics & Plant-Animal Interactions (Dr. Yi-Ching Lin; email: yichingtree@gmail.com; Info:

https://scholar.google.com/citations?hl=en&user=-67h1gdQAAAAJ)

7.Geospatial Analysis & Landscape Ecology (Dr. Chuan-Te Chang; email: changchuante@gmail.com; Info: https://sites.google.com/view/chungtechang)

8.Intercontinental Disjunction of Butterflies & Mitochondrial Meta- genomics (Dr. Li-Wei Wu; email: liweiwu@thu.edu.tw; Info: https://-www.researchgate.net/profile/Li-Wei- Wu)

9.Spider Behavioral Ecology and Silk Biomimetics (Dr. I-Ming Tso; email: spider@thu.edu.tw; Info:

http://araneae.thu.edu.tw/index.php?page=-prof&lang=en)

10.Visual Adaptation & DNA barcoding (Dr. Chia-Hao Chang; email: chiahao0928@thu.edu.tw; Info:

https://scholar.google.com/citations?hl=en&user=-hZAjbhAAAAAJ)

11.Wetland Ecology & Environmental Physiology of Crustaceans (Dr. Hui- Chen Lin; email: hclin@thu.edu.tw; Info: https://scholar.google.com/-citations?hl=en&user=4o02bfAAAAAJ)

The TIGP Biodiversity Program is a joint program from the following three institutes: Academia Sinica, National Taiwan Normal University, and THU. If you cannot find a suitable advisor from THU who fits your research interest, please also visit the TIGP Biodiversity Program website (http://tigp-biodiv.biodiv.tw/) and contact other advisors to explore different topics that may fit your interest.

For more information, please contact:

Shao-Lun Liu, Ph.D.

Professor

Department of Life Science, Tunghai University

Taichung, Taiwan

E-mail:

shaolunliu@gmail.com

## UAlabama EvolGenomicsBumbleBees

Graduate Positions in Comparative Evolutionary Genomics of Bumble Bees and their Color Patterns

Graduate positions are available in the laboratory of Jeff Lozier at The University of Alabama (lozierlab.ua.edu) as part of a recently awarded NSF project: “How many routes to the same phenotype? Genetic changes underlying parallel acquisition of mimetic color patterns across bumble bees”. This project is a collaboration with Dr Heather Hines at Penn State (hineslab.org/) and Dr Jonathan Koch at the USDA Bee Lab in Logan, UT (jonathanbkoch.weebly.com).

Students will be involved in an interdisciplinary project to study the origins of color pattern variation in bumble bees. The project involves comparative population genomics using whole genome resequencing of many North American bumble bee species to examine processes like speciation and the genomic changes associated with phenotypic variability within and between species. Range-wide whole genome data is already available in the lab for many bumble bee species and students will be involved

in additional field work and generation of sequencing data. Students will also be able to make use of these data sets to develop projects relating to genome assembly, conservation, landscape genomics, and evolution of North American bumble bees.

We are looking to recruit highly motivated students with interests in applying modern molecular and computational tools in a non-model group with ecological and economic importance. Students will join an active, diverse, collaborative, and friendly lab (lozierlab.ua.edu/people.html) and department (U Alabama Biological Sciences: bsc.ua.edu).

Contact Jeff Lozier (jlozier@ua.edu) for more information. The position is available starting Fall 2022, but students interested in starting earlier are also encouraged to contact me.

Jeff Lozier Associate Professor Biological Sciences The University of Alabama jlozier@ua.edu lozierlab.ua.edu | mussels.ua.edu

Jeffrey Lozier <jlozier@ua.edu>

## UAlberta HostParasiteInteractions

Graduate position available in: Ecology and Evolution of Host-Parasite Interactions

A graduate research position (PhD program) is available in Dr. Lien Luong's research group (https://grad.biology.ualberta.ca/luong/) at the University of Alberta. Start date: September 2022.

Project background: Exposure to parasites can lead to changes in host behavior, morphology, or physiology, even in the absence of infection. These non-consumptive effects (NCE) can be understood in the context of the "ecology of fear". Potential projects include, but are not limited to investigating the: 1) state-dependent nature of NCE, 2) trait-mediated NCE, 3) NCE of parasites on host metabolism, and 3) evolutionary consequences of NCE. Successful applicants will investigate these questions using a fruit fly-mite system, applying concepts and techniques from behavioral ecology, physiological ecology, and/or experimental evolution. For more information: https://grad.biology.ualberta.ca/luong/ The Department of Biological Sciences at U of A is one of the largest and most scientifically diverse departments of its kind in Canada. We offer research-orientated, thesis-based graduate programs at both the MSc and PhD levels. Study programs are tailored individually to graduate student needs and emphasize interdisciplinary thinking. With ˜200 graduate students, 65 full-time faculty, excellent support facilities and ample research funding, a vibrant and exciting learning environment is provided. For more information about applying to the graduate program: http://www.biology.ualberta.ca/programs/-graduate/prospective/ To learn more, please send a brief statement of your research experience/interest and a copy of your curriculum vitae to lluong@ualberta.ca. Application deadline is February 1, 2022.

Lien Luong <lluong@ualberta.ca>

## UCalifornia Davis EvolutionaryBiol

I am recruiting 1-2 new Ph.D. students into my research group at the University of California Davis for next academic year (Fall 2022).

If you are interested in studying how species adapt to human-altered environments, then read onÂ We have a new grant funded by the NIEHS to explore the genetic changes that have enabled very rapid adaptive evolution to extreme environmental change. More specifically, we seek to further our understanding of the genetic basis of evolved pollution resistance in Atlantic killifish. Killifish are marine fish that are abundant in coastal estuaries. Over the span of just a few decades, populations in urban estuaries have evolved resistance to extreme pollution, and this resistance has evolved multiple times independently. This provides a naturally replicated model system for studying mechanisms that underlie rapid adaptation to human-altered environments.

You can find some of our most recent manuscripts on the subject here: https://-whiteheadresearch.wordpress.com/publications/
E.g., Reid et al 2016, Whitehead et al 2017, Oziolor et al 2019

The core of the next phase of our research is to apply quantitative genetics to uncover the genetic underpinnings of variation in sensitivity of pollution-induced developmental deformities (e.g., embryonic cardiac deformities, etc). This work would be best suited for students interested in Genetics, Evolution, Ecotoxicology, and Ecophysiology. There is much room for recruited students to bring their own creativity to bear on related research topics. And there is much opportunity to collaborate with colleagues at other universities (e.g., Woods Hole Oceanographic Institute in Massachusetts) and government agencies (e.g., US EPA in Rhode Is-

land). For students that are interested, please email me directly, and include a statement of purpose (some sort of cover letter outlining your background, interests, and goals) and your CV.

UC Davis is a wonderful place to live and study. Candidate students have diverse options for programs through which they can enter - e.g., Ecology, Pharmacology/Toxicology, Population Biology, or Genetics graduate groups (deadlines for grad group applications are December 4th 2021). I am committed to building and maintaining a diverse and inclusive research group.

Check out my lab website: http://-whiteheadresearch.wordpress.com/ Andrew Whitehead, Ph.D. Department of Environmental Toxicology 4121 Meyer Hall University of California, Davis, CA 95616

awhitehead@ucdavis.edu

## UCopenhagen HumanMicrobeInteractions

PhD fellowship in the Center for Evolutionary Hologenomics at the Globe Institute

We are offering a PhD fellowship in human-microbe interactions in food fermentation commencing in March 2022.

More info: https://jobportal.ku.dk/phd/?show=155201 Our group and research This work will take place in the context of the Center for Evolutionary Hologenomics. At the center, diverse scholars from around the world are revisiting the story of humans and animals more generally from the "hologenomic perspective," in which animals and their microbes–be they bacteria, fungi (such as yeasts) or other taxa–are considered holistically.

Project description In general, the student will consider the evolutionary relationship between humans and the microbes associated with fermented foods. They will do so while working in the rapidly growing field of human microbiome research at the interfaces of evolutionary biology, genomics, microbiology, biogeography and history/prehistory. As an example, a project might be developed as followsÂ Humans are known to have relied on yeasts, specifically strains of Saccharomyces cerevisiae, to make beer and bread for many thousands of years. Today, these yeasts are found in homes, on human bodies and in fermented foods around the world. Historically, it was thought that such yeasts were everywhere and simply colonized fermented foods from the air or the environment more generally. More recently, it has become clear that these yeasts have traveled the world with and even on humans. One version of this PhD project would tell the study the story of these yeasts, but rather than doing so from the human perspective (assuming humans control the yeasts and the big story), from the yeasts' perspective. After all, the global populations of yeasts are far larger than global human populations (they have benefited more from us than the reverse) and the products produced by yeasts affect many aspects of human behavior (via their products, such as beer, wine and bread). In this framing, the story of yeasts is not so unlike, for example, the story of the Ophiocordyceps fungi that produce compounds that alter the behavior of ants in ways that benefit the fungi (but not the ants). In this PhD, we propose to take the perspective of yeasts, and other-fermentation associated microbes, more seriously.

If focused on yeasts, this project could include at least three elements. First, the student would work with our team to develop models (drawing from approaches used in community ecology and evolutionary theory) of early interactions between humans and yeasts and those situations in which yeasts might be expected to benefit more than humans and vise versa. These models could be fully quantitative or more conceptual (e.g., on the model of Madden et al), and would undoubtedly draw on insights from insect-yeast relationships where models tend to be better developed. Second, the student would use phylogenetic and phylogeographic approaches to consider how and when yeasts spread around the world, and the extent to which they spread with humans (based on existing samples, but potentially also new samples and hence field work). Third, the student would consider the scenarios in which humans and particular microbes relied upon in food fermentation (together as a kind of "extended hologenome") were more likely to succeed relative to humans not engaging in interactions with those same microbes.

During this project, the student has the potential to solve ancient mysteries while simultaneously learning to employ cutting edge approaches in, for example, phylogenomics/phylogenetics, microbial culturing, metagenomics, and biogeography.

Principal supervisor is Robert Dunn, Center for Evolutionary Hologenomics, robert.dunn@sund.ku.dk

Sandra Breum Andersen

Associate Professor Center for Evolutionary Hologenomics Globe Institute University of Copenhagen Ãster Farimagsgade 5 1353 Cph K Denmark

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Sandra Breum Andersen <sbandersen@sund.ku.dk>

## UEdinburgh 2 PopulationGenetics txt

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

1) How does a species' mating system and population-size history affect the fitness of an introduced plant species? Supervisors: Matthew Hartfield, Alex Twyford, Mario Vallejo-Marin (University of Stirling).

Species that uniparentially reproduce to some degree (either through self-fertilisation or clonal reproduction) are more likely to establish themselves in remote areas, including islands. However, the reproductive mode also affects how prevalent deleterious mutations are in a species' genome; it can either reduce them so populations are more likely to persist, or enhance them due to relaxed selection, leading to lowered fitness. Introduced populations are also likely to go through a population bottleneck, which can further alter the prevalence of deleterious mutations. It is unclear how the mating system and population history interact to influence the long-term fitness of new populations, especially with regards to their deleterious mutation prevalence. The goal of this project will be to analyse genome data from Mimulus guttatus to quantify both the extent of self-fertilisation and clonal reproduction in natural populations in the UK, and the deleterious mutation load.

Further details and application instructions: https://www.findaphd.com/phds/project/eastbio-how-does-the-reproductive-mode-and-population-history-affect-the-fitness-of-an-introduced-plant-species/?p135780 (EASTBIO DTP, deadline 16th December 2021); https://www.ed.ac.uk/e4-dtp/how-to-apply/supervisor-led-projects/project?item=1446 (E4 DTP, deadline 6th January 2022); Funding is also available via the Darwin Trust (for non-UK residents, see https://darwintrust.bio.ed.ac.uk/) and external funding (e.g., Carnegie PhD Scholarships for those who have graduated from a Scottish University). Deadline 5th January 2022.

2) New methods for detecting and quantifying genetic adaptation Supervisors: Matthew Hartfield, Konrad Lohse.

Understanding how populations adapt to their environment is a major focus of evolution research. There has been great interest in identifying how beneficial mutations go to fixation in populations; are they instantly favourable after arising as a new mutation, or are other mechanisms at play, including recurrent mutation or selection on existing genetic variation? Despite many advances in this field, it has still proved tricky to determine the evolutionary origins of beneficial mutations. This is especially true if we wish to infer the nature of adaptation in wild populations, especially plants, that uniparentally reproduce to some degree (that is, via self-fertilisation and/or clonal reproduction) to test evolutionary theories regarding how species with different reproductive modes adapt to their environment. The goals of this exciting project is to develop novel methods for detecting the prevalence of different types of favourable mutations along a genome, and then apply them to genome data to determine the how adaptation proceeds in species with different reproductive modes.

Further details and application instructions: https://www.findaphd.com/phds/project/new-methods-for-detecting-and-quantifying-genetic-adaptation/?p136569 Funding is available via the Darwin Trust (for non-UK residents, see https://darwintrust.bio.ed.ac.uk/) and external funding (e.g., Carnegie PhD Scholarships for those who have graduated from a Scottish University). Deadline 5th January 2022.

The expected start date for both projects is October 2022. Interested students can get in contact to ask for more details.

Matthew Hartfield m.hartfield@ed.ac.uk https://matthartfield.wordpress.com The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336. Is e buidheann carthannais a th' ann an Oilthigh DhÃ¹n Ãideann, clàraichte an Alba, àireamh clàraidh SC005336.

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

## UEdinburgh AMREvolutionWildlife

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

Time travel to understand AMR: Metagenomics of antimicrobial resistance in wildlife through time and space Supervisors: Katerina Guschanski, Luke McNally, Mick Watson

Funding Status: Funding is in competition with other

projects and students through Doctoral Training Programs (NERC and BBSRC DTP)

Project Description Antimicrobial resistance (AMR) is a major threat for human health worldwide and poses a significant financial burden in treatment costs. AMR is also a crucial issue in agriculture and livestock health. In addition, because antimicrobial resistance is a normal function of natural environments, wild animals carry resistance bacteria. Mounting evidence exists for the exchange of resistant bacteria and their genes between wildlife, livestock, and humans. Yet, due to a number of key limitations, we know very little about the role of wild animals in the global dynamic of maintenance and spread of AMR.

First, because resistance bacteria and their genes are easily spread even to the most remote regions, we lack a baseline for AMR that is unaffected by human-made antibiotics. Second, we do not know how AMR load changed following the advent of industrial-scale antibiotic production, which started in the 1940s. We also lack comparative data to evaluate how local policies may affect AMR load in wildlife. Finally, we do not have a good understanding which wild animal species are more likely to carry a high AMR load. Taken together, we are missing crucial information for understanding global AMR dynamics and for devising efficient measure to reduce AMR spread among humans, environment and wildlife.

This project will use ancient metagenomics of preserved host-associated microbiomes to quantify AMR load and characterize the diversity of antibiotic resistance genes (ARGs) in wild animals from 100 years ago and until today. By identifying key ecological characteristics of wild animals that increase their exposure to antibiotics, it will propose sentinel species for efficient monitoring of environmental contamination. Spatial and temporal comparisons will highlight governmental policies that are successful in minimising AMR spill-over into the environment. Going back in time, the project will allow the quantification of the impact of recent developments, both positive (e.g. restrictive use of antibiotics in medicine) and negative (e.g. spillage of untreated sewage) on the AMR load.

Methodology This project uses a unique, recently developed ancient metagenomics approach to study AMR from dental calculus. Dental calculus is a calcified host-associated oral microbiome that preserves on mammalian teeth, remains virtually unchanged through time, and can be collected from museum specimens. It thus represents a microbial fossil that provides a (genomic) view into the past. With this tool, the project will study in a comparative manner AMR across different host species from various parts of the world and through time, going back to before the advent of industrial-scale antibiotic production.

The project will involve sample collection in natural history museums, followed by sample processing in dedicated ancient DNA laboratories and metagenomic analyses to quantify and characterise ARGs. The student will have ample freedom to develop own research foci within the global framework of the project.

Candidate requirements To be eligible for a PhD-student position the applicant should have at least an upper 2.1 degree in evolutionary biology, bioinformatics, or a related field. The technical skills of the candidates will be evaluated based on the experience with large-scale sequence analyses and bioinformatics proficiency. The ideal candidate will have a strong interest and documented knowledge in evolutionary biology, with a drive to understand processes shaping complex communities. Perseverance and high intrinsic motivation are required to work with non-standard samples and data. You will be highly reliable, driven and well-organised, curious and willing to think outside the box, with the ability to quickly acquire new skills. Previous experience in metagenomics and ancient DNA will be highly advantageous.

The position will begin Fall 2022. Interested students should send a current CV and a brief letter of interest to Dr. Katerina Guschanski (Katerina.Guschanski@ed.ac.uk) and get in contact for more details. More information about the research group https://www.ieg.uu.se/animal-ecology/-Research+groups/guschanski-lab . Further details and application instructions: (EASTBIO DTP, deadline 16th December 2021)

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## UEdinburgh InsectReproductionEvolution

Dear all,

I am looking for talented and enthusiastic evolutionary/molecular biologist or entomologist for two 4-year

PhD positions in my lab http://laura ross.bio.ed.ac.uk at the Institute of Evolutionary Biology, University of Edinburgh. See detailed project descriptions below

Please note that in the UK system funding is not guaranteed but that there are funding options for both UK and international students. If you are interested please contact me directly (laura.ross@ed.ac.uk) to discuss. Deadlines vary depending on funding source: 6th of January for project 1, 16th of December for project 2, but please contact me at least a week before the official deadline if interested!

Project 1: Sexual conflict in a fly with unusual sex determination In organisms with separate sexes, sex determination is among the most important early developmental processes for fitness. Despite its importance, in many groups of organisms sex determination is remarkably dynamic, with the specific gene, chromosomal location, and parent of origin of the sex determining gene showing rapid turnover. This dynamism has been proposed to reflect conflict between genes and between parents.

A clear case of conflict occurs in a group of small flies, the fungus gnats, which exhibit so-called paternal genome elimination, in which males eliminate the genome they inherit from their fathers. This system puts extremely strong selection on fathers to produce daughters, since sons do not transmit their genes. Theory predicts adaptation in both sex determination mechanism and mating behaviour. Consistent with this, we see frequent transitions in sex determination mechanism, with different chromosomes determining sex in different species. Some species even exhibiting maternal sex determination, in which some mothers have only sons, others only daughters. We also expect behavioural adaptation, since males are expected to evolve to prefer to mate with mothers more likely to bear daughters, particularly in the case of maternal sex determination.

The project involves, bioinformatic, behavioural and theoretical studies of this group to understand the causes and consequences of maternal sex determination and paternal genome elimination. At the bioinformatic level, bioinformatic analyses of genomes and transcriptomes of related species will illucidate the population-genetic processes driving sex determination evolution. At the behavioral level, studies of mating behavior will probe adaptations to maternal sex determination. At the theoretical level, there are opportunities to develop new models to generate predictions to regarding the origins and consequences of maternal sex determination and paternal genome elimination. This project will be co-supervised by Scott Roy (San Francisco State University and there will be opportunities for the candidate to visit his lab. More information: https://www.ed.ac.uk/e4-dtp/how-to-apply/-supervisor-led-projects/project?item=1370 Project 2: Developing an insect model for studying epigenetics and aging Medical advances have extended lifespan, yet this has not been matched with prolonged health. A key challenge is to find ways to improve health and well-being in older age. It is therefore vital we understand the molecular aging process in order to determine how aging leads to increased disease and ill health. Epigenetic clocks, and specifically DNA methylation clocks, have recently been identified as important predictors of biological age and associated morbidity from molecular data. However, there is currently no tractable insect model system to explore and manipulate DNA methylation for aging based research. This PhD project would begin to establish such as system. Mealybugs (small plant parasites) provide an ideal system to study epigenomic ageing processes. Females live almost double that of males and our lab has recently shown extreme sex-specific DNA methylation profiles. We have also shown mealybugs, unlike almost all studied insect species, possess promotor DNA methylation which is correlated with lower gene expression. This unique feature means mealybugs provide the closest insect DNA methylation profile to that found in mammals. In addition to providing an excellent system to study epigenomic ageing processes mealybugs are also invasive agricultural pests meaning results from this research can be applied across strategic interests. The project is co-supervised by Dr. Jenny Regan (Edinburgh). A comprehensive training programme will be provided comprising both specialist scientific training and generic transferable and professional skills. Specifically, the student will undertake training in DNA damage accumulation assays, fitness / life history assays, advanced microscopy, DNA / RNA extraction,

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## UExeter HumanLifeHistoryEvolution

NERC GW4+ DTP PhD studentship

*** Life, love and death in a changing world: Human life-history evolution in action? ***

Location: Centre for Ecology and Conservation, Penryn Campus, University of Exeter, Cornwall, UK

Supervisors: Erik Postma, Sinead English, Mhairi Gibson, Thomas Currie

Application deadline: January 10 2022

More info: https://www.exeter.ac.uk/study/funding/award/?idB36 * Project background *

In a world that is changing at an unprecedented rate, understanding how environmental change shapes the dynamics of populations is key. Analyses of long-term data on birds and (non-human) mammals have shown that evolution can act on relatively short timescales, and that understanding the origin and maintenance of biological diversity ultimately requires an evolutionary (genetic) approach. This contrasts starkly with the state of research regarding our own species, where the role of genetic variation, selection and evolution in shaping individual life-histories is poorly understood, and often dismissed a priori.

This project applies analytical tools from evolutionary biology, statistics, and quantitative genetics to a unique genealogical dataset from central Europe, spanning four centuries and detailing the lives of tens of thousands of people. Analyses of individual-based pedigree, life-history and fitness data allows you to:

i) Quantify the relative importance of genes, environment, and culture in shaping life-histories. ii) Measure the strength and shape of selection on key life-history traits during modern history. iii) Infer how human life-histories have evolved over the course of modern history, and how these evolutionary trajectories have been shaped by societal change.

* About the NERC GW4+ Doctoral Training Program *

This project is one of a number that are in competition for funding from the NERC Great Western Four+ Doctoral Training Partnership (GW4+ DTP). The GW4+ DTP consists of the Great Western Four alliance of the University of Bath, University of Bristol, Cardiff University and the University of Exeter plus five Research Organisation partners: British Antarctic Survey, British Geological Survey, Centre for Ecology and Hydrology, the Natural History Museum and Plymouth Marine Laboratory. The partnership aims to provide a broad training in earth and environmental sciences, designed to train tomorrow's leaders in earth and environmental science. For further details about the programme please see http://nercgw4plus.ac.uk/ For eligible successful applicants, the studentships comprises:

An stipend for 3.5 years (currently 15,609 p.a. for 2021/22) in line with UK Research and Innovation rates

Payment of university tuition fees;

A research budget of 11,000 for an international conference, lab, field and research expenses;

A training budget of 3,250 for specialist training courses and expenses

* More information *

For eligibility, entry requirements, and how to apply, see https://www.exeter.ac.uk/study/funding/award/?idB36 –

Erik Postma - e.postma@exeter.ac.uk

"Postma, Erik" <E.Postma@exeter.ac.uk>

## UFlorida GeneticsGradProgram VirtualQandA

Are you interested in a PhD program in genetics/genomics with a focus on generating and analyzing 'omics data? We have over 200 faculty to work with and all students are fully funded. Please join the University of Florida Genetics & Genomics PhD program virtual information session on Tuesday, November 9th at 1:00PM EST! Come talk with faculty, current students, and program administration to learn more about the interdisciplinary opportunities in our program. For additional details, please register here: https://ufl.qualtrics.com/jfe/form/SV_6ooLEPxCiYBsMN8 Connie J. Mulligan, PhD Professor, Department of Anthropology 2033 Mowry Rd, PO Box 103610 | University of Florida | Gainesville, FL 32610-3610 Office: 409 Genetics Institute | Telephone: 352-273-8092 | Fax: 352-273-8284 Website: https://conniejmulligan.wordpress.com/ "Connie J. Mulligan" <cmulligan@ad.ufl.edu>

## UGeorgia EvolutionaryBiology

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

Admission through the ILS program allows new graduate students to explore research across 15 Ph.D. graduate programs, including over 50 laboratories with diverse ecology and evolutionary biology interests. Over their first semester in the program, graduate students can choose rotations among laboratories from any of these departments in the life sciences.

The application deadline for Fall 2022 admission to the ILS program is December 4, 2021. To learn more about the ILS program and research at the University of Georgia, please visit the website at:

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

https://ils.uga.edu/faculty/by-interdisciplinary-groups/evolution-ecology-faculty/ Athens, Georgia is a vibrant college town and is consistently ranked one of the top places to live.

Please contact us with any questions.

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

Michael White <whitem@uga.edu>

## ULausanne MycorrhizalSymbiosis

University of Lausanne: PhD position on the Mycorrhizal Symbiosis

Job Description: A PhD student position is available in the Sanders' group to use cassava transformation techniques to better understand molecular interactions in the mycorrhizal symbiosis. The goals of the project are to develop transformants that can be used in field investigations in Colombia to better understand how mycorrhizal fungi contribute to cassava growth, how they affect the soil microbiome and processes in the soil like carbon cycling.

It is intended that the results of this project will be combined with research in the field where our work is leading to real solutions to increase production of food in areas of the world where starvation is a major problem. More information about our work can be found at http://people.unil.ch/iansanders/ Your skills and qualifications: Candidates must be highly motivated, have an MSc (or very soon), and have a strong interest plant molecular biology and the mycorrhizal symbiosis. If successful, there will be a unique chance to apply the technology in ecological or agricultural field-based experiments. Therefore, the candidate should be open-minded to research in ecology or agronomy and have the motivation and interest to apply this to field-based experiments in the tropics. You must have a strong interest in investigating this topic using an experimental approach and show ability to think in an analytical way. The successful candidate will work on this project with two postdoctoral researchers. You must have good interpersonal skills and an ability to work in a multicultural team. A high level of English is essential. Some knowledge of Spanish (or prepared to learn) would be helpful.

Job information: The position is available in early 2022. The contract is initially for 1 year. Funding is available for up to 4 years on a Swiss National Science Foundation project. Most of the PhD student's time will be dedicated to research, and there is the additional possibility of supervising master's students. A contribution to teaching practical classes is expected.

Applications: You must apply online to the University of Lausanne job portal and upload a CV and motivation letter in English. The letter must include the names of 2-3 referees. The link to apply is:

https://bit.ly/3onwxRP Applications must be received not later than 15th January 2022. Informal enquiries may be made by email to ian.sanders@unil.ch but you MUST only apply online. You must NOT send your application to this email address.

Ian Sanders <ian.sanders@unil.ch>

## UMainz 14 EvolutionGeneRegulation

Join the PhD Programme "Gene Regulation in Evolution" (GenEvo) in Mainz, Germany

Thinking of doing your PhD in the Life Sciences? The PhD Programme "Gene Regulation in Evolution" (GenEvo) in Mainz, Germany is offering 14 talented, young scientists the chance to work on cutting edge research projects! Check out our poster!

In the vivid network of the programme, scientist are researching together on the core question of how complex and multi-layered gene regulatory systems have evolved. Experts in their field support & train our PhD students in their cross-over research as well as their personal development. Our working language is English.

Within the programme the Faculty of Biology of Mainz University (JGU) and the Institute of Molecular Biology (IMB) collaborate both modern research institutions located on the bustling campus of Mainz University in Germany.

Find more information on our programme, offered projects and the application process on our webpage: https://www.genevo-rtg.de/ The registration deadline is 20 January 2022. Interviews will take place 04-06 April 2022. Starting date: 1 July 2022

We are looking forward to your application!

Best regards, Sonja Wendenburg E-Mail: GenEvo@uni-mainz.de

Dr. Sonja Wendenburg Coordinator RTG 2526/1 "GenEvo" University of Mainz

Institute of Molecular Biology gGmbH (IMB) Ackermannweg 4, 55128 Mainz, Germany Phone: +49-6131-39-21569 Mail: GenEvo@uni-mainz.de

GenEvo <GenEvo@uni-mainz.de> GenEvo <GenEvo@uni-mainz.de>

## UMissouri StLouis OrchardPollination

MS on Pollination in Urban Orchards The Muchhala Lab invites applicants for a Master of Science position in the Department of Biology at the University of Missouri - St. Louis. The successful applicant will be funded as a Research Associate, including stipend and tuition, and will contribute to a USDA-funded project focused on pollination services in urban orchards in the St. Louis region (see summary below). Applicants should have an undergraduate degree in Biology (or an appropriate subfield) and prior research experience, preferably involving fieldwork, insect identification, and/or pollination methodology. The project will involve working with other graduate students and PIs from multiple institutions, and leading a team of undergraduate students, on experimental and observational research aimed at quantifying pollination services and fruit yield across multiple urban orchards.

Review of applicants will begin on November 30th, with the position preferably beginning in Spring Semester (January) of 2022. Applications should include a curriculum vitae and a short statement (one to two pages) on previous experience, research interest, and motivation for applying. Combine materials into a single PDF or Microsoft Word document and send to muchhalan@umsl.edu. Additionally, arrange to have three recommendation letters sent to the same email.

Project Summary Around the world, it is becoming increasingly popular to plant orchards within cities and towns. Fruiting trees can provide an important local source of high-quality food, particularly in low-income regions, and reduce the environmental impacts of long-distance transport of food. However, maintaining orchards in heavily populated areas poses several challenges. In particular, there needs to be sufficient insect pollinators to ensure fruiting success. We propose to evaluate pollination in tens of orchards across the city of St. Louis, examining how factors such as human population density, socioeconomic status, soil type, and surrounding vegetation impact insect numbers and fruit yield. We will then focus on nine of these orchards to perform detailed experiments to test the effects of increasing pollinator numbers directly, by adding colonies of native bees, or indirectly, by adding blackberry stems and commercial bee houses that they can use as nesting

sites. This work represents a collaboration between four local universities, the Missouri Botanical Garden, the Saint Louis Zoo, and a non-profit organization (Gateway Greening) established to increase urban agriculture in St. Louis; we will involve many students in the research, and interact closely with local communities surrounding the orchards. We expect results to provide timely information on best practices to maximize the economic value of urban orchards, as well as their environmental benefits in terms of supporting local insect diversity and minimizing the ecological footprint of cities.

– Nathan Muchhala, Ph.D.

Associate Professor Department of Biology University of Missouri -St Louis One University Blvd, R428 Research Hall St Louis, Missouri 63121 (314) 516-6672 http://-www.umsl.edu/˜muchhalan/ muchhalan@umsl.edu

## UMuenster SticklebackTapeworm

The Institute for Evolution and Biodiversity at the University of Mï¿½nster, Germany, is seeking to fill the position of a

Doctoral Student (Ph.D position)

(salary level TV-L E 13)

for the externally funded project SFB/TRR 212 at the earliest possible date. We are offering a fixed-term position (65%) for 3 years.

Your tasks:

The position is part of the Collaborative Research Centre (SFB/TRR 212) entitled: A Novel Synthesis of Individualisation across Behaviour, Ecology and Evolution: Niche Choice, Niche Conformance, Niche Construction (NC3), as granted by the German Research Foundation (DFG).

This PhD project deals with the ecological and evolutionary effects of parasite virulence. In this project, you will investigate the niche construction effects of a trophically transmitted tapeworm parasite (Schistocephalus solidus) on individual three-spined stickleback fish. The project aims to show how these effects cascade from the individual to the ecosystem level and alter eco-evolutionary dynamics. The successful candidate will be involved in mesocosm experiments to investigate how parasite virulence affects individual trophic specialisation of the hosts. We also aim to identify the physiological and metabolic traits associated with these individual differences. The successful candidate will further take advantage of transcriptomic datasets to identify the immuno-physiological traits associated with host niche individualisation, and contribute to the development of computational models that will bridge the gap between individual, population, and community processes.

Our expectations:

Applicants should be highly motivated scientists of any nationality, who are interested in interdisciplinary work. They should have the equivalent of a master degree in biology, preferentially with a focus on evolution and ecology, or related fields. A background, and ideally some experience, in any of the following areas will be useful: fish handling and care, limnology, molecular skills, individual-based models, as well as a good understanding of statistics. Applicants should have excellent communication skills and be able to work both independently and as part of a multidisciplinary team. The working language of the Institute and the lab is English, and good proficiency in spoken and written English is a requirement.

Advantages for you:

The University of Mï¿½nster is a large vibrant university hosting a number of excellent scientific institutions (http://www.uni-muenster.de/en/). The Institute for Evolution and Biodiversity provides a stimulating research environment with a number of scientific groups researching diverse topics centred on different aspects of evolution. The successful candidate will join the team of Professor Joachim Kurtz, focussing on host-parasite coevolution and ecological immunology. As a part of the Collaborative Research Centre SFB/TRR 212 (https://www.uni-bielefeld.de/fakultaeten/biologie/-forschung/verbuende/sfb_nc3/), the project will involve intensive collaboration with consortium partners at the Universities of Mï¿½nster and Bielefeld. The town of Mï¿½nster itself has many students and presents a dynamic environment with many cultural and social events throughout the year (http://www.muenster.de/en/).

The University of Mï¿½nster is an equal opportunity employer and is committed to increasing the proportion of women academics. Consequently, we actively encourage applications by women. Female candidates with equivalent qualifications and academic achievements will be preferentially considered within the framework of the legal possibilities.

The University of Mï¿½nster is committed to employing more staff with disabilities. Candidates with recognised severe disabilities who have equivalent qualifications are given preference in hiring decisions.

Are you interested?

Then we look forward to receiving your application, written in English, in one single pdf file by 15 December 2021 at Dr. Jaime Anaya-Rojas (jaime.anaya-rojas@uni-muenster.de). Please note that we cannot consider other file formats. Applications should include 1) a cover letter with a statement of research interests and motivation (max. 1 page), 2) a CV including details about university degrees, research experience and publications, and 3) contact details of at least two referees.

"Kurtz, Joachim" <joachim.kurtz@uni-muenster.de>

## UNevada Reno EvolGenomicsBioinformatics

GRADUATE STUDENT POSITIONS IN EVOLUTIONARY GENOMICS AND BIOINFORMATICS AT THE UNIVERSITY OF NEVADA, RENO

The Alvarez-Ponce lab at the University of Nevada, Reno, is accepting applications from potential M.S and Ph.D. students.

Research in our lab focuses on the evolution of genes and genomes, and how this evolution is shaped by natural selection. Specific topics include rates of protein evolution, the evolution of molecular networks, the evolution of methylomes, gene duplication, and organisms' genomic adaptation to different temperatures.

More information on the lab can be found at www.genomeevol.wordpress.com . The ideal candidates would have: - A strong commitment to high-quality research. - A strong interest in Molecular Evolution. - Experience with bioinformatics analyses, including programming in any scripting language (e.g. PERL or Python), or a strong willingness to learn. - Good communication skills. - Good interpersonal skills. - The requirements to be accepted in the graduate program (EECB, CMB or Biology programs).

Informal applications should be addressed ASAP to Dr. David Alvarez-Ponce (dap@unr.edu) as a single PDF, including: - A short application letter, addressing the applicant's motivation for the position, and how her/his experience and skills fulfill the requirements listed above. Please include your TOEFL/IELTS scores. - A CV. - Contact information for potential referees.

Official applications are due to the Graduate School by December 15.

The University of Nevada, Reno offers an interactive and productive research environment, including outstanding core facilities in genomics and bioinformatics. The Biology Department has a growing 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 Associate Professor Department of Biology University of Nevada, Reno Max Fleischmann Agriculture Building, office 140B Tel.: (775) 682-5735 www.genomeevol.wordpress.com David Alvarez-Ponce <david.alvarez.ponce@gmail.com>

## UOttawa FungalGenomics

PhD position in Fungal Genome Biology

Our lab is seeking one PhD Student to continue pushing forward our understanding of the genetics/genome biology of prominent symbiotic organisms called Arbuscular Mycorrhizal Fungi. The selected trainees will join a fun, inclusive lab supervised by Dr. Nicolas Corradi in the Department of Biology at the University of Ottawa, Canada (http://corradilab.weebly.com/).

Undergraduate students interested in the position can apply for an MSc and then fast-track to PhD within the first year.

Application Process: Applicants are expected to have a good background in at at least one of the following areas: Mycology (Taxonomy/Cultivation /Genetics), Transcriptomics/Comparative genomics, Programming skills for the Life Sciences, Plant-microbe interactions or Community Ecology. Generally, we seek someone who is excited about tackling difficult questions related to genetic/molecular interactions between fungal symbionts and their plant hosts.

A complete application package includes 1) a CV, 2) Cover Letter with a short (half a page) description of past research accomplishments/future goals in our field, and 3) the names and e-mail addresses of at least two references. Complete applications can be sent to Dr. Nicolas Corradi: ncorradiATuottawa.ca. N.B: Incomplete applications will not be reviewed.

Starting date = September 2022 (Flexible). Evaluation of applications starts immediately until a suitable

candidate is found. Canadian citizens and Permanent residents will be given priority for the position. However, the position is also open to outstanding international applicants. For international applicants, fluency in either English or French is required.

Location: The University of Ottawa is a large, research-intensive university, hosting over 40.000 students and located in the downtown core area of Canada's capital city (https://www2.uottawa.ca/en). Ottawa is Canada's capital's fast changing ,vibrant multicultural city with a very high quality of life (http://www.ottawatourism.ca/-fr/)

Nicolas Corradi

University Chair in Microbial Genomics

Associate professor - Professeur Associé Department of biology - Département de biologie Université de Ottawa - University of Ottawa

Bureau/Office: GNN257 - Tel : 613 5625800 - ext 6563 Website: http://corradilab.weebly.com/ Nicolas Corradi <ncorradi@uottawa.ca>

## UPotsdam AdaptationBruceEffect

PhD position at the animal ecology group in Potsdam, Germany.

Topic: Pregnancy replacement in mammals - all costs or hidden benefits for females?

The adaptive value of many behavioural processes may relate to very specific biological or social situations. The Bruce effect reported from different mammalian taxa describes the blocking of an early pregnancy in reaction to the confrontation to a new, unknown male. It probably has high energetic costs for the female, especially if a broader, less mechanistic definition of the pregnancy termination also in later stages of the pregnancy is applied. The adaptive value has been debated as a counterstrategy to potential future infanticide by the new male (infanticide avoidance hypothesis), but also lab artefacts were considered since in rodent species the effect was reported only from laboratory conditions. We (Eccard et al. 2017) showed in rodents in experimental, near natural conditions that the Bruce effect was restricted to isolated, breeding pairs and may be adaptive in fluctuation rodent populations during low density phases. We also found that half of the test females replaced pregnancies when encountering a new male while the other half did not, which raised questions about the adaptive value and biological function of the process, potentially in mate choice.

In the proposed project we experimentally disentangle potential adaptive and mechanistic explanations for pregnancy replacements, focussing rather on the replacement than the termination function, using a small rodent system in near natural, controlled conditions. Low population density forces females to reproduce with their relatives, but in the event of encountering a migrant male, pregnancy replacement may allow the female to increase her genetic dissimilarly to sire (inbreeding avoidance). Further, the process could be a mechanism of sequential mate choice and should thus depend on the relative quality of original and replacement male (male quality). Hypotheses will be tested in near natural conditions, and infanticidal tendencies of each male will also be monitored. Further, the dynamic interaction of the animals will be tracked with proximity loggers to reveal triggers of pregnancy replacement, e.g. mate guarding, harassment, avoidance (behavioural, mechanistic explanations).

The candidate is expected to run experiments in large outdoor enclosures with the help of a technician, to breed and phenotype animals with different degrees of relatedness and male quality (dominance ranks), to collect and analyse automated tracking and encounter data. Experience working with small animals, willingness working outdoors also mornings and evenings (life trapping), technical abilities while using the customized encounter logging system (calibrations, soldering, systematic error searches), fun and experience with R statistics, scientific writing skills are desired, some of these can be learned.

Questions to: Jana Eccard (eccard@uni-potsdam), applications to Jennifer Kaminski, postition open (November 2021) until filled

(animal-ecology@uni-potsdam.de)

# Prof. Dr. Jana Eccard # Animal Ecology, University of Potsdam, Germany # https://www.uni-potsdam.de/en/ibb-tieroekologie/index.html Jana Eccard <eccard@uni-potsdam.de>

## UPotsdam EvolutionaryBehaviour

#### PhD position at the animal ecology group in Potsdam, Germany.

Topic: Pregnancy replacement in mammals - all costs or hidden benefits for females?

The adaptive value of many behavioural processes may relate to very specific biological or social situations. The Bruce effect reported from different mammalian taxa describes the blocking of an early pregnancy in reaction to the confrontation to a new, unknown male. It probably has high energetic costs for the female, especially if a broader, less mechanistic definition of the pregnancy termination also in later stages of the pregnancy is applied. The adaptive value has been debated as a counterstrategy to potential future infanticide by the new male (infanticide avoidance hypothesis), but also lab artefacts were considered since in rodent species the effect was reported only from laboratory conditions. We (Eccard et al. 2017) showed in rodents in experimental, near natural conditions that the Bruce effect was restricted to isolated, breeding pairs and may be adaptive in fluctuation rodent populations during low density phases. We also found that half of the test females replaced pregnancies when encountering a new male while the other half did not, which raised questions about the adaptive value and biological function of the process, potentially in mate choice.

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Questions to: Jana Eccard (eccard@uni-potsdam), applications to Jennifer Kaminski

(animal-ecology@uni-potsdam.de)

– # Prof. Dr. Jana Eccard # Animal Ecology, University of Potsdam, Germany # https://www.uni-potsdam.de/en/ibb-tieroekologie/index.html Virenfrei. www.avast.com

Jana Eccard <eccard@uni-potsdam.de>

## URegensburg EvolutionarySystematicBotany

Open Ph.D. position in plant systematics and evolution at the Institute of Plant Sciences at the University of Regensburg (Germany) Position description: A 3-years PhD position funded by the German Science Foundation (DFG) is presently available in the area of plant systematics and evolution at the Institute of Plant Sciences at the University of Regensburg (Germany), 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 Prof. Dr. Frank Hellwig (Friedrich-Schiller-University Jena) and Dr. Robert Vogt (Botanic Garden & Botanical Museum Berlin-Dahlem). The salary will be according the TV-L E13/2.

The Ph.D. project is part of the DFG??s priority programme 1991 ???Taxon-Omics: New Approaches for Discovering and Naming Biodiversity??? (https://-www.taxon-omics.com/) and will focus on the complex questions concerning possibilities for objective and fast machine-learning approaches to automated species delimitation in intensively hybridising plant genera. By implementing high-throughput molecular techniques based on herbarium material (hyRAD) in combination with the automated extraction of morphological characters and

ecological niche-modelling based on museum material, the project aims at the fast discovery and delimitation of evolutionary significant units (species) without the necessity of additional field work. The approach will be exemplified in three plant groups of the sunflower family (Compositae, Asteraceae) known for their critical taxonomy caused by extensive hybridisation: the Senecio nemorensis syngameon (8 species; Europe), the genus Rhodanthemum B.H.Wilcox et al. (15 species; NW Africa), and the genus Baccharis L. in Chile (14 species, 26 hybrid combinations).

Deadline for application: December 15, 2021. If needed, the position will remain open until a suitable candidate is found.

Starting date: February 1, 2022 Requirements: Applicants are expected to have their Masters 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: bioinformatics (sequence and genome analysis), phylogeny reconstruction, GIS techniques, machine-learning techniques, automatic image analysis. 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 detailed CV including a detailed list of molecular, analytical, linguistic, and bioinformatic 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 of Plant Sciences University of Regensburg Universit??tsstr. 31 D-93053 Regensburg Germany phone +49-(0)941-9433129 fax +49-(0)941-9433106 christoph.oberprieler@ur.de

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

## USussex EvolutionaryGenetics

PhD studentships, starting in Sept 2022, are available in evolutionary genetics to study with Prof Adam Eyre-Walker and Dr Alex Bousios at the University of Sussex on two projects - "How much of the human genome is functional?" and "Examining the impact of transposable elements in rice domestication from a population genetics perspective". These projects are offered as part of the BBSRC funded South Coast Biosciences Doctoral Training Programme. More details of the projects, including details of the co-supervisors can be found at https://southcoastbiosciencesdtp.ac.uk/-project/, and more details of the DTP programme including the stipend, deadline and eligibility criteria can be found on at https://southcoastbiosciencesdtp.ac.uk. Note the studentships are potentially available to students from any country. Informal enquiries can be made to Adam Eyre-Walker ( a.c.eyre-walker@sussex.ac.uk) or Alex Bousios (alex.bousios@sussex.ac.uk )

Adam Eyre-Walker <adameyrewalker@googlemail.com>

## UtahStateU SocialBehaviorLifeHistoryEvolutionBees

PhD position in bee social behavior and life history evolution

The Kapheim Lab (www.kapheimlab.com) at Utah State University is recruiting a PhD student to study the relationship between life history evolution and social behavior in bees starting Fall 2022. The project will focus on the facultatively eusocial bee, Megalopta genalis, with a combination of behavioral field work, physiological assays, and analyses of gene expression. Field work will be conducted at the Smithsonian Tropical Research Institute in Panama (https://stri.si.edu/). Potential students interested in social evolution and with a desire to develop skills in behavioral ecology, physiology, and bioinformatics are encouraged to apply.

The position comes with a competitive support package including research and travel funding, salary, tuition waivers, and health insurance. The position will be

open until filled, but applications should be completed by Dec. 15 to be included in the Department of Biology Recruiting events (https://biology.usu.edu/education/-graduate-program/application_guideline).

The Kapheim Lab is a collaborative group of scientists who are committed to cultivating equity, diversity, and inclusion in academia while promoting professional, scientific, and personal growth for every member of our team. More information, including our Code of Conduct and mentoring policies can be found on the lab website. Potential applicants should please send an email to Dr. Kapheim (karen.kapheim@usu.edu) with a CV and brief statement of interest that describes why you are interested in the research and graduate school more generally. Please also feel free to email with any questions.

Karen M. Kapheim Associate Professor Department of Biology Utah State University 5305 Old Main Hill Logan, UT 84322 karen.kapheim@usu.edu www.kapheimlab.com she/her

Karen Kapheim <karen.kapheim@usu.edu>

## UTulsa AvianColorEvolution

PhD position - Avian Coloration

The Toomey Lab in the Department of Biological Sciences at the University of Tulsa (TU) is seeking PhD students for an NSF-funded position beginning Fall 2022. We are looking for individuals interested in applying cutting-edge molecular biological approaches to address fundamental questions about organismal evolution. You will be part of a team investigating the biochemical, cellular, molecular, and physiological mechanisms that link coloration and individual quality in the house finch model system. There will be many opportunities to cross-train with our partner labs at Auburn University (Dr. Geoff Hill) and The University of Memphis (Dr. Yufeng Zhang).

If you are interested in joining the lab, please email Dr. Matthew Toomey (mbt6332@utulsa.edu) with a brief cover letter describing your research interests and experiences and a current CV or resume.

More information about the Toomey Lab is at mbtoomey.net

TU's Department of Biological Sciences: https://-engineering.utulsa.edu/biological-science/ Life in Tulsa: https://roottulsa.com/guides Matthew Toomey, PhD Assistant Professor Department of Biological Science University of Tulsa Tulsa, OK 74104 Website: mbtoomey.net

"Toomey, Matthew" <mbt6332@utulsa.edu>

## UValencia CrustaceanEvolution

WHERE: Cavanilles Institute of Biodiversity and Evolutionary Biology (U. Valencia, Spain)

WHAT: Predoctoral contract offered for training researchers to carry out a PhD thesis associated with the project Crustacean Responses to Environmental Stressors (PID2020-112959GB-I00) financed by the Spanish Ministry of Science. The CRUSTRESS project will characterize crustacean responses to environmental stressors such as high temperature, high salinity and low oxygen levels and analyze the evolution of the main genomic mechanisms behind adaptations to different habitats (groundwater, springs, temporary ponds and marshes).

The scholarship will have a maximum duration of four years and it comprises the financing of contracts and an additional aid to cover expenses derived from the realization of research stays and tuition fees for doctoral studies. Previous experience in aquatic ecology and/or molecular biology, the use of statistical tools for data analysis, English proficiency and motivation of the applicant will be considered.

For more information: Ferran.Palero@uv.es or Francesc.Mezquita@uv.es

Call: https://go.uv.es/feuspa/FPI – Ferran

PALERO Ferran, Ph.D. M.Sc. Institut Cavanilles de Biodiversitat i Biologia Evolutiva (ICBIBE) Carrer del Catedrï¿½tic Josï¿½ Beltrï¿½n Martinez, 2 46980 Paterna, Valencia E-mail: Ferran.Palero@uv.es Tel: 0034963543787 // Associate Researcher, Natural History Museum, Cromwell Road, London, SW7 5BD UK E-mail : Ferran.Palero@nhm.ac.uk ResearcherID: A-7830-2012

Ferran Palero <crustomics@gmail.com> Ferran Palero <crustomics@gmail.com>

## UVirginia EvolutionaryGenetics

University of Virginia: PhD position in Evolutionary Genetics.

The Bergland lab at the University of Virginia is recruiting a PhD student to work on a NSF funded project study rapid adaptive evolution and meta-population biology of Drosophila over seasonal time-scales. This position will provide training in quantitative and population genetics incorporating field based sampling, laboratory experiments, NGS library prep and data-analysis and will allow the selected student to pursue new and original research questions. This position will also include the development of an outreach program with Citizen Scientists and the opportunity to collaborate in international consortium of Drosophila evolutionary biologists.

Applicants with a background in evolutionary biology, genetics, and genomics are encouraged to apply. Experience with Drosophila or other model systems is encouraged but not necessary.

The Bergland lab is part of the Biology Department at the University of Virginia. Our department has strengths in Evolutionary Biology, Developmental Biology, and Neuroscience and PhD students experience a broad exposure to cutting edge research across these disciplines. PhD students at UVA also have access to a number of unique fellowship and research grant opportunities.

The University of Virginia is located in Charlottesville, Virginia nestled in the foothills of the Blue Ridge Mountains. Charlottesville offers ample access to the outdoors, has a vibrant restaurant and night life, and is close to major metropolitan areas.

The deadline to apply for PhD positions in the Biology Depart at UVA is Dec 1, however applications will be considered through December 5.

See https://bio.as.virginia.edu/graduate/how-to-apply for more information to UVA's Biology Program. See https://bergland-lab.org for more information on the Bergland lab.

Please contact Alan Bergland (aob2x@virginia.edu) to discuss the position. Include a CV and a cover letter addressing your research and educational background to start the conversation.

aob2x@virginia.edu

## WesternWashingtonU EvolutionaryBiology

Masters of Science in Biology Western Washington University

The Biology Department at Western Washington University has openings for graduate students starting Fall 2022. ?Faculty members in the department offer a wide range of expertise, from molecular biology to ecology. ?Graduate students are eligible for teaching assistantships, which fund the majority of tuition and provide a stipend of $14,856 per 9-month academic year. ?WWU is located in Bellingham, WA, a coastal city north of Seattle at the base of Mt. Baker in the northwestern part of the state. ?We strongly advise interested students to contact potential advisors in their area of specialty to get more details about individual labs.

APPLICATION DUE DATE: Feb. 1, 2022

More information can be found with the following resources: - The Biology Dept: https://cse.wwu.edu/-biology/biology-graduate- program; - The WWU Graduate School: http://www.wwu.edu/gradschool/-App_Reqs_Deadlines.shtml; - Dr. David Hooper, Biology Graduate Program Advisor, hooper at wwu.edu; - By contacting the individual faculty, below.

Potential advisors

Alejandro Acevedo-Guti?rrez: The Marine Mammal Ecology Lab aims to understand the role of marine mammals in their environment and their interactions with humans. ?For academic year 2022-2023, Dr. Dietmar Schwarz and I are looking for a student interested in examining relatedness of harbor seals in the Salish Sea. ?To learn more about this position and about the lab, please visit https://www.wwu.edu/faculty/-aceveda/index.html ?Do notice that I ask interested students to informally apply with me by December 17th of 2021.

Shawn Arellano: Marine invertebrate larval ecology and deep-sea ecology. The Arellano lab has opportunities to study larval biology and larval ecology in deep-sea, hydrothermal-vent organisms as part of an NSF-funded project. Research training opportunities may include larval culturing and embryology, larval physiology and behavior techniques, use of oceanographic equipment, microscopy, and/or molecular ecology ap-

proaches. https://wp.wwu.edu/arellanolab/ Marion Brodhagen: Microbiology, molecular biology, and chemical ecology. ?We are studying the interaction of the fungus Aspergillus with plants. ?Specifically, we are interested in the ability of plant natural products to alter fungal development, including the production of the potent toxin, aflatoxin. ?We also are interested in how growth on agriculturally-used biodegradable plastics alters development and toxin production by this ubiquitous soil fungus. ? https://cse.wwu.edu/biology-faculty/brodham Jim Cooper: The Cooper Evo-Devo lab focuses on aspects of development that have shaped long-term evolutionary patterns. We are particularly interested in how changes in skull morphogenesis alter the cranial mechanics of fishes in ways that allow them to invade new feeding niches. To do this we combine several different approaches that include studies of wild-caught marine fish larvae from the Salish Sea, experimental work with genetically modified zebrafish, using high-speed video to collect biomechanical data, transcriptomic studies of fish skull development, genetic mapping, and evolutionary studies of cranial form and function. Because our work is highly integrative, our lab group can accommodate students with a diverse range of interests. cooperw5@wwu.edu

Lina Dalberg: The Dahlberg Lab uses the model organism C. elegans to probe the neurobiological, cellular, and behavioral role for proteins involved in a ubiquitin-dependent processes called Endoplasmic Reticulum Associated Degradation (ERAD). Student projects will use a variety of techniques, including fluorescence microscopy, behavioral assays, and biochemical characterization to investigate how ERAD targets neural receptors for degradation. A second, NSF-funded project focuses on teaching and learning in undergraduate science laboratory courses; students interested in this project should have experience (via coursework or research) in education and pedagogy research. http://faculty.wwu.edu/-dahlbec/ Deb Donovan: Research in the Donovan lab is focused on restoration aquaculture of our native pinto abalone, Haliotis kamtschatkana. Pinto abalone populations have declined precipitously in the last few decades and we collaborate with the Puget Sound Restoration Fund and with government agencies to restore populations in the Salish Sea. Student projects could focus on any aspect restoration, including optimizing rearing of juveniles at the hatchery, outplanting larval or juvenile

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## WilliamMaryU PlantEvolution

MS graduate position(s) at the intersection of Conservation, Data Science, and Genomics @ William and Mary

The Puzey Lab (https://puzeylab.weebly.com) is looking for 1 new M.S. graduate student to begin in Fall 2022. We are looking for students who are passionate about plants, conservation, and genomics. The lab uses a range of big-data approaches to address pressing conservation questions Specifically, we are interested in using milkweed (Asclepias syriaca and Asclepias exaltata) as a model to understand how the Anthropocene has impacted plant and insect interactions.

Experience with Python and/or R is desirable.

Please email Josh Puzey (jrpuzey@wm.edu) for additional information.

Chartered in 1693, William and Mary (W&M) is the second oldest school in the US and located in historic Williamsburg, VA. W&M offers a two-year, research-intensive M.S. program where students are supported by teaching assistantships and full tuition waivers. For many students, getting a Master's degree in two years while earning grants and publications allows them to gain admittance to high-profile Ph.D. programs or take that next career step.

With a low student to faculty ratio (8-10 new students and 23 full-time faculty), we can offer an intimate and highly personalized research and education experience rarely attainable at larger universities. Our graduate students also work closely with and mentor undergraduates, offering numerous informal teaching and personal development opportunities.

Additional information can be found: https://-www.wm.edu/as/biology/graduate/index.php The GRE is not required for admission.

"Puzey, Joshua" <jrpuzey@wm.edu>

## YorkU MolecularEvolutionDevelopment

We are seeking a highly motivated student for a funded MSc or PhD position in the Schott Lab at York University. The position is part of an NSERC-funded research program that seeks to understand the evolution of vertebrate visual systems and how they develop and adapt in response to different sensory environments. This is accomplished using an integrative approach that combines comparative genomics and evolutionary computational analyses with targeted experiments to provide a comprehensive view of visual system evolution and function at multiple organizational scales. Available projects include: (1) examination of ontogenetic patterns of visual gene expression and function in frogs and salamanders with different life histories; (2) investigation of convergent and novel mechanisms of visual evolution and regression during fossorial adaptation in amphibians and squamate reptiles; and (3) determination of the evolutionary and developmental origins of a novel photoreceptor type found in amphibians. These projects will use approaches such as transcriptome sequencing and differential gene expression, whole genome sequencing and genome-wide approaches to estimate relative evolutionary rates, single-cell RNA-seq, and cellular imaging. During the graduate program, students are also encouraged to develop their own research projects specific to their interests. The successful candidate will join an open and inclusive research environment and have the opportunity to interact with an international group of collaborators.

The ideal candidate will have research experience, interest in molecular evolution and sensory systems, strong communication skills, and strong performance in science courses. Experience with -omics research and bioinformatics is preferred, but not required.

The position will begin Fall 2022. Interested students should send a current C.V. and a brief letter of interest to Dr. Ryan Schott schott@yorku.ca. More information about the Schott Lab at YorkU is available at https://www.yorku.ca/science/schott/ . More information about the Department of Biology graduate programs can be found at https://biology.gradstudies.yorku.ca/ . Applications to the graduate program are due January 15.

Ryan K Schott, PhD

Assistant Professor Department of Biology, York University

Research Associate National Museum of Natural History, Smithsonian Institution

“schott@yorku.ca” <schott@yorku.ca>

# Jobs

## Charleston SouthCarolina PopulationGenetics

Hello,

The Division of Marine Resources for South Carolina Dept. of Natural Resources is hiring a permanent PhD level scientist to join the population genetics team in Charleston, SC. Closing date is 11/30/2021.

https://www.governmentjobs.com/careers/sc/jobs/-3161706/assistant-marine-scientist The successful candidate will conduct population genetic and molecular tool research on marine and freshwater fishes, with direct applications for stock enhancement, fisheries management, conservation, and tool development. While experience with marine and/or freshwater fish is desirable, we welcome anyone with skills in molecular labwork, bioinformatics, conservation genetics, or functional genomics to apply. The population genetics team is housed in the state-of-the-art Hollings Marine Lab, and has close collaborations with NOAA, NIST, and the College of Charleston, including the opportunity to directly advise Master's students as adjunct faculty.

This is an excellent position for someone looking to do impactful research in a collaborative atmosphere, while still encouraging academic curiosity and connection. Charleston is a beautiful place to live, and we are committed to building and supporting a diverse and inclusive work environment.

Please direct questions to Dr. Tanya Darden (DardenT@dnr.sc.gov) or Dr. Katherine Silliman (ksil91@gmail.com).

Thanks,

Katherine Silliman, PhD Assistant Marine Scientist (starting 12/02/2021) South Carolina Dept. of Natural Resources

Katherine Silliman <ksil91@gmail.com>

## DukeU LabTech DrosophilaEvGen

The Noor Laboratory in the Department of Biology at Duke University is looking for an Associate in Research (lab technician). Duties will include maintenance of Drosophila cultures, collections of unmated flies for crosses and executing said crosses in relation to a project studying the abundance of lethal alleles in natural populations. The hire will be responsible for media preparation, phenotyping individuals, DNA isolation and molecular genotyping, entering and managing data, and other help with this project. The position also entails managing undergraduate students, and requires clear communication and coordination with the lab members and other laboratory efforts.

Bachelors degree in biology or related discipline required.

Duke University is an Affirmative Action/Equal Opportunity Employer committed to providing employment opportunity without regard to an individual's age, color, disability, gender, gender expression, gender identity, genetic information, national origin, race, religion, sex, sexual orientation, or veteran status.

Duke aspires to create a community built on collaboration, innovation, creativity, and belonging. Our collective success depends on the robust exchange of ideas-an exchange that is best when the rich diversity of our perspectives, backgrounds, and experiences flourishes. To achieve this exchange, it is essential that all members of the community feel secure and welcome, that the contributions of all individuals are respected, and that all voices are heard. All members of our community have a responsibility to uphold these values.

Applications are submitted through: https://-academicjobsonline.org/ajo/jobs/19369 Mohamed Noor <noor@duke.edu>

## FloridaStateU 2 ComputationalGenomics

The Department of Biological Science at Florida State University (https://www.bio.fsu.edu) invites outstanding applications for two tenure-track Assistant Professor positions: one in the broadly defined area of Computational Genomics and another in the broadly defined area of Microbiology.

Computational Genomics. The Department of Biological Science at Florida State University (https://-www.bio.fsu.edu) invites outstanding applications for a tenure-track Assistant Professor in the broadly defined area of Computational Genomics.We are particularly interested in candidates who creatively develop and apply computational approaches to drive biological discoveries and innovations, using large-scale data (e.g., multi-omic) and harnessing cutting-edge technologies (e.g., single-cell, spatial, long-read). Computational biologists who incorporate wet lab research programs are also encouraged to apply. Candidates are expected to establish an innovative, extramurally funded research program and contribute to undergraduate and graduate education. Applicants must possess at a minimum a doctoral degree from an accredited institution or the highest degree appropriate in the field of specialization with a demonstrated record of achievement in academic research, instruction/mentorship, and service. Postdoctoral training in the field of specialization is preferred. Questions about the position should be directed to Prof. Peter Fraser: comp.gen@bio.fsu.edu

Microbiology. The Department of Biological Science at Florida State University invites outstanding applications for a tenure-track Assistant Professor in the broadly-defined area of Microbiology including, but not limited to, studies of bacteria, viruses, or host-microbial interactions. Successful candidates are expected to establish an innovative, extramurally-funded research program and contribute to undergraduate and graduate education in the area of Microbiology. Applicants must possess at a minimum a doctoral degree from an accredited institution or the highest degree appropriate in the field of specialization with a demonstrated record of achievement in academic research, instruction/mentorship, and service. Postdoctoral training in the field of specialization is preferred. Questions about the position should be directed to Prof. Hengli Tang: micro@bio.fsu.edu.

The Department of Biological Science is a diverse and interactive group with 46 tenure-track faculty members in Cell and Molecular Biology, Ecology and Evolution, Molecular Biophysics, and Neuroscience graduate programs. Faculty include leaders in epigenomics, chromosome biology, evolutionary genetics, structural biology, and neurogenomics. In addition, there is a vibrant regional community of researchers across multiple departments and universities who study diverse aspects of microbiology.

Researchers have access to excellent core resources, including a state-of-the-art imaging center equipped with a Titan Krios cryo-electron microscope, live cell imaging, and super-resolution 3D-SIM; access to the Coastal and Marine Laboratory and the National High Magnetic Field Laboratory. Additional resources include facilities for functional genomics, proteomics, flow cytometry, mass spectrometry, computing clusters for bioinformatics, and a modern BSL3 facility. For information about Florida State University's Department of Biological Science, visit our website at https://www.bio.fsu.edu . Other Information Florida State University is consistently ranked as a top 20 public university by US News & World Reports. FSU is located on land that is the ancestral and traditional territory of the Apalachee Nation, the Muscogee Nation, the Miccosukee Tribe of Florida, and the Seminole Tribe of Florida. Tallahassee is the capital city of Florida, which is situated in the Big Bend region of the state, a biodiversity hotspot with undeveloped terrestrial and aquatic ecosystems. Tallahassee is close to several state parks, rivers, a National Wildlife Refuge, the largest national forest in Florida, and the pristine beaches of the Gulf of Mexico. It also hosts rich programs in visual and performing arts and athletics.

How to Apply Submit your application at http://-www.jobs.fsu.edu (Job ID 50256). Include 1) a statement summarizing past contributions to and future plans for promoting diversity and inclusion; 2) a statement describing your experience/philosophy of teaching and mentoring; 3) a statement of research accomplishments and future goals; 4) a detailed curriculum vitae (CV) including academic and professional experience; 5) peer reviewed publications (please include PDF copies of a maximum of your two most significant, peer-reviewed, published manuscripts). Review of applications will begin on December 13, 2021 and continue until the position is filled.

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## GutenbergU Mainz SciCoordinator

GenEvo: Scientific Coordinator (m/f/d) in part-time (75%) The graduate college "Gene Regulation in Evolution: From Molecular to Extended Phenotypes" (GenEvo) funded by the German Research Foundation (DFG) is an initiative of the Biology Department at Johannes Gutenberg University (JGU) Mainz with the Institute for Molecular Biology (IMB). The graduate college offers a structured, top-class research and training program for doctoral students in evolutionary and molecular biology (www.genevo-rtg.de/). Fluent in German is a requirement. If you are interested in this jop, apply by 21 November 2021. For more details, please open the job advertisement.

Dr. Sonja Wendenburg Coordinator RTG 2526/1 "GenEvo" University of Mainz

Institute of Molecular Biology gGmbH (IMB) Ackermannweg 4, 55128 Mainz, Germany Phone: +49-6131-39-21569 Mail: GenEvo@uni-mainz.de

GenEvo <GenEvo@uni-mainz.de>

## LehighU TeachingEvolutionaryBiology

*Teaching Assistant Professorin Organismal Biology*

*Department of Biological Sciences*

The Department of Biological Sciences at Lehigh University is seeking a full-time, Teaching Assistant Professor in Organismal Biology, to begin in August 2022. Eligible applicants will have a Ph.D. in biological sciences, expertise in the use of innovative and interactive scientific teaching practices in both introductory and advanced level courses, and experience in assessment of student learning outcomes. This position carries an initial three-year appointment, with an expected start in August 2022. Subsequent renewal and promotion based on performance and continued need is possible, following Lehigh's promotion system for teaching faculty.

The successful candidate will be responsible for the teaching of large introductory courses (Integrative and Comparative Biology and Laboratory, >100 students) in addition to upper-level labs and courses in the Candidate's field of expertise. The candidate will also have the opportunity to mentor undergraduate students in independent research projects.

To apply, please submit: (1) a cover letter, (2) curriculum vitae, (3) teaching statement including examples of innovative approaches and practices, (4) a statement of visions for and contributions to promoting diversity and inclusion, and (5) at least three letters of recommendation. Optional supplemental materials of the candidate's choosing are also welcomed.

Go to this link to submit application materials: https://academicjobsonline.org/ajo/jobs/20287 Founded in 1865, Lehigh University has combined outstanding academic and learning opportunities with leadership in fostering innovative research. Recognized among the nation's highly ranked research universities, Lehigh offers a rigorous academic community for nearly 7,000 students. Lehigh University has some 5,000 undergraduates, 2,000 graduate students, and about 550 full-time faculty members. Lehigh University is located in Bethlehem, PA., a vibrant and historic area with a reasonable cost of living. Over 820,000 people live in the Lehigh Valley, which is in close proximity to New York City and Philadelphia.

For additional information contact Teaching Faculty Search Committee Chair, inbios@lehigh.edu.

Go to https://www.lehigh.edu/~inbios/ for more information about the department. * Application review will begin on December 1, 2021.*

*Lehigh University is an affirmative action/equal opportunity employer and does not discriminate on the basis of age, color, disability, gender identity or expression, genetic information, marital or familial status, national or ethnic origin, race, religion, sex, sexual orientation, or veteran status. We are committed to increasing the diversity of the campus community. Lehigh University is committed to a culturally and intellectually diverse academic community and is especially interested in candidates who can contribute, through their research, teaching and/or service, to this mission. Lehigh University is the recipient of an NSF ADVANCE Institutional Transformation award for promoting the careers of women in academic sciences and engineering < http://www.lehigh.edu/luadvance/ > and is among institutions of higher education recognized for excellence in diversity with the INSIGHT into Diversity HEED Award. Additional information about Lehigh's commitment to diversity and inclusion is available at < https://diversityandinclusion.lehigh.edu/ >. Lehigh University provides competitive salaries and comprehensive benefits, including domestic partner benefits. More

information about Work/Life Balance for Faculty can be found at < https://www.lehigh.edu/~inprv/faculty/-worklifebalance.html >Lehigh University supports dual career efforts for following spouses/partners of newly hired faculty. Learn more about Dual Career Assistance at < https://www.lehigh.edu/~inprv/faculty/-dualcareer.html >.*

Amber M. Rice, Ph.D. (Pronouns: she, her, hers)

Associate Professor Co-Director of Graduate Program

Department of Biological Sciences Lehigh University 111 Research Drive, B217 Bethlehem, PA 18015 USA

Lab Zoom link: https://lehigh.zoom.us/my/amberrice Lab website: https://wordpress.lehigh.edu/amr511/ Follow us on Twitter: @amberricelab

Amber Rice <amr511@lehigh.edu>

## LouisianaStateU 3 EvolutionaryBiology

Work Location: Baton Rouge, LA

To apply, please visit https://-lsu.wd1.myworkdayjobs.com/LSU/job/0202-Life-Sciences-Building/Assistant-Professor_R00061784 Job Information: The Department of Biological Sciences at Louisiana State University invites applications for a tenure-track position in Ecology at the level of Assistant Professor. We seek a broadly trained ecologist who addresses questions in any of a variety of sub-disciplines of ecology including but not limited to animal behavior, population demography and regulation, community structure and interactions, or the maintenance and function of biodiversity. The successful candidate will be expected to develop a strong, competitively funded research program. Favorable candidates will also complement our department's existing strengths, teach an undergraduate course in ecology, and a graduate course in their area of expertise.

Our department is dedicated to the goal of building a culturally diverse and pluralistic faculty, and we strongly encourage applications from women, members of minoritized groups, individuals with disabilities, veterans, and other members of groups underrepresented in science. We seek candidates whose research, teaching, or service has prepared them to contribute to diversity and inclusion in higher education.

The position will be available in August 2022.

Job Duties: 50% Develop and maintain an independent and extramurally funded research program ranging across all levels of biological organization with an emphasis on ecology. 50% Teach undergraduate and/or graduate level courses in a biological sciences discipline with an emphasis on ecology, and direct/supervise graduate students. Participate in service activities pertaining to the mission of the Department, and the advancement of the profession.

Minimum qualifications: PhD in Biological Sciences or related field Successful track record of productive research and publication along with postdoctoral experience.

Application Requirements: Curriculum Vitae Statements of research and teaching interests Three representative publications Three references who can provide letters of recommendation at a future date Diversity, Equity, and Inclusion statement describing how you will promote an inclusive learning environment and how your scholarship and mentoring practices support a diverse academic community.

Application deadline is December 6, 2021, or until a candidate is selected.

Salary: Commensurate with qualifications and experience.

Special Instructions: A copy of your transcript(s) may be attached to your application (if available). However, original transcripts are required prior to hire.

Abby Simpson Office of Human Resource Management Manager, Talent Acquisition 110 Thomas Boyd Hall | Baton Rouge, LA 70803 O: 225.578.7316 | F: 225.578.6571 Email: asimpson1@lsu.edu www.lsu.edu/-hrm LSU HRM: Employment Resources for Student Success

Connect With Us

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Work Location: Baton Rouge, LA

To apply, please visit https://-lsu.wd1.myworkdayjobs.com/LSU/job/0202-Life-Sciences-Building/Assistant-Professor_R00061771 Job Description The Department of Biological Sciences at Louisiana State University invites applications for a tenure-track Microbial Biologist at the level of Assistant Professor in the areas of cellular microbiology and microbial physiology with research interests that can include among others: host-microbe interactions including pathogenesis; systems biology. Collaborative opportunities include the Department of Pathobiological Sciences (School of Veterinary Medicine), the College of Engineering, the College of the Coast and Environment

and the College of Agriculture/LSU AgCenter. LSU's Center for Computation and Technology offers powerful platforms for research with a substantial computational component. Successful candidates will be expected to establish and maintain a vigorous, extramurally funded research program and to contribute to undergraduate and graduate teaching in the area of microbial physiology.

Job Duties: 50% Develop and maintain an independent and extramurally funded research program ranging across all levels of biological organization. 50% Teach undergraduate and/or graduate level courses in a biological sciences discipline, and direct/supervise graduate students. Participate in service activities pertaining to the mission of the Department, and the advancement of the profession.

Minimum Qualifications: PhD in Microbiology, Biological Sciences or related field. Applicant should have a successful track record of productive research and publication, and postdoctoral experience.

Application Requirements: Curriculum Vitae

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## MaxPlanckInstOrnithology FieldAssist BlueTitEvol

The Department of Behavioural Ecology and Evolutionary Genetics at the Max Planck Institute for Ornithology in Seewiesen, Bayern, Germany (see http://www.orn.mpg.de/2622/Department_Kempenaers), is seeking up to three field assistants (m/f/d) to begin work as soon as possible until latest 31st May 2022.

These assistants will work as part of a long-term study on the reproductive biology of a blue tit Cyanistes caeruleus population in a protected forest site in Southern Germany.

The activities will include: ï¿½ catching birds at feeders and nest-boxes using traps and/or mist nets ï¿½ measuring and banding birds ï¿½ maintenance of electronic feeder and nest-box hardware and equipment ï¿½ setting up experimental equipment ï¿½ data collection, entry, and management

Successful candidates must have experience in catching and handling birds, including extensive experience in mist netting. Applicants should also be highly motivated and well organised, with capabilities of working both in a group and independently. Field work hours can be long and tiring, thus applicants must be prepared to work in all types of weather conditions, at any time (including weekends and holidays), with typically only one day off per week.

The working language at the Institute is English, so good knowledge of the language is required. A full, clean driver's licence is essential, with driving experience of at least one year. Experience in driving vehicles with manual transmission is also a necessity. Applicants from outside the EU must ensure they are eligible to remain in Europe for the duration of their contract.

Vaccination against Tick Borne Encephalitis (TBE or FSME) before commencing the field work is recommended to all successful candidates. In addition, applicants should be aware that Lyme disease spread by ticks is common in the area, and should inform themselves about the disease in advance.

The Max Planck Institute for Ornithology employs a dynamic, dedicated, and international group of researchers who are focused on exploring the fields of evolution, ecology, genetics, and neurobiology. The Institute itself is situated in nature and within driving distance of both the Alps and Munich.

Review of applications and calls for interviews will begin as applications come in. If you are interested in applying for one of the field assistant positions as described above, please apply (including your CV and a short cover letter in one PDF document) via email to cgilsenan@orn.mpg.de

Carol Gilsenan Department of Behavioural Ecology and Evolutionary Genetics Max-Planck-Institute for Ornithology Eberhard-Gwinner-Straï¿½e, House 7 82319 Seewiesen Germany

"Gilsenan, Carol" <cgilsenan@orn.mpg.de> "Gilsenan, Carol" <cgilsenan@orn.mpg.de>

## MississippiStateU 2 EvolutionaryBiol

Two Tenure-Track positions: EEB/MCDB

The Department of Biological Sciences at Mississippi

State University (MSU) invites applicants for two 9-month, tenure-track Assistant Professor positions. Successful candidates are expected to establish an externally funded research program in an area that will complement the existing strengths of the department, teach courses for the undergraduate and graduate programs (M.S. and Ph.D.), and contribute to the service mission of the department. Appointment will be at the rank of Assistant Professor, with an anticipated start date of August 16, 2022. Minimum requirements include a Ph.D. in a relevant area of Biology, with post-doctoral experience, evidence of sustained scholarly productivity, and evidence of teaching competence. Applications from members of groups that are typically under-represented in science are strongly encouraged.We also encourage applicants with bold new perspectives and approaches to hypothesis-based research and teaching, particularly those focused on interdisciplinary and collaborative research.

Position 503311: Organismal biologist For candidates whose research addresses fundamental questions in ecology, evolution, or behavior in any taxa, particularly those with a strong quantitative framework.

Position 503312: Molecular, cellular or developmental biologist

For candidates studying fundamental questions in any area of molecular, cellular, developmental biology, or evolutionary/developmental biology within any taxa.

The Department of Biological Sciences provides in-house research infrastructure including new imaging and high-performance computing resources. Core facilities within the department also include the Mississippi State University herbarium (MISSA), a BSL- 2 AALAC animal care facility, a forest reserve, and common-use molecular and imaging facilities. Mississippi State University is a comprehensive R1 land-grant university that serves more than 22,000 students. The Department of Biological Sciences offers degrees at the B.S. (Biological Sciences, Medical Technology, and Microbiology), M.S., and Ph.D. (Biological Sciences, Computational Biology) levels. Faculty in the department have diverse research interests in bioinformatics, cell biology, developmental biology, ecology, evolutionary biology, genetics, microbiology, and systematics, and are funded by the NIH, NSF, DARPA, USDA, and DOJ, as well as numerous state and private organizations. Campus research infrastructure includes numerous centers and institutes through which Biology faculty have collaborated (www.research.msstate.edu/centers-institutes/-), in addition to collaborations with faculty in all of the university's eight colleges. The MSU herbarium is part of a campus-wide museums and galleries group (www.museums.msstate.edu), and we are situated within a short drive of more than 120,000 acres of state and federal natural areas, with abundant opportunities for research and recreation. Applicants must apply online at http://explore.msujobs.msstate.edu (search job 503311 or 503312 under Careers tab). Attach (in a single pdf file) a cover letter, a CV, a statement of research expertise and goals (2-page maximum), a statement of teaching interests and competency (2-page maximum), a statement of your contributions, commitment, and action plan for promoting inclusivity (2-page maximum), contact information for three references, and reprints of up to three publications. Screening of applications will begin December 03, 2021.

As required by Executive Order 14042, If selected, you will be required to be vaccinated against COVID-19 and submit documentation of proof of vaccination or apply for and receive a University-approved exemption before beginning employment with the University.

Equal Employment Opportunity Statement: MSU is an equal opportunity employer, and all qualified applicants will receive consideration for employment without regard to race, color, religion, ethnicity, sex (including pregnancy and gender identity), national origin, disability status, age, sexual orientation, genetic information, protected veteran status, or any other characteristic protected by law. We always welcome nominations and applications from women, members of any minority group, and others who share our passion for building an inclusive community that reflects the diversity of our student population.

What do I do if I need an accommodation?

In compliance with the ADA Amendments Act (ADAAA), if you have a disability and would like to request an accommodation in order to apply for a position with Mississippi State University, please contact the Department of Human Resources Management at tel: (662) 325-3713 or ada@hrm.msstate.edu.

If you have any questions regarding this policy, contact the Department of

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## NIOO-KNAW Netherlands PopulationEcolEvolution

Dear All,

At the Department of Animal Ecology (AnE) of the Netherlands Institute of Ecology (NIOO-KNAW) we are looking for a population ecologist (tenure-track/senior researcher) to join our team. Research in AnE centres around the evolutionary and population ecology of animals, and combines long-term population studies of birds with experimental work in aviary and waterbird facilities with the use of avian genomic tools.We are currently looking for somebody that works at the interface of individuals and populations, and that is willing to use our long-term populations studies of hole-breeding passerines (four populations, 1955-present) and share responsibility for the data collection in these populations.

We are looking for an enthusiastic scientist with several years of post-doctoral experience in an international context, an excellent track record in evolutionary or population ecology in terms of both publications and the acquisition of research grants, and experience in supervision of PhD students. The successful candidate will be expected to develop exciting new research questions and build a strong research line within the department, with clear links to the research of the other scientists at AnE (see https://nioo.knaw.nl/en/department-animal-ecology) and to play an active role within the Department, the NIOO research themes and the institute.

Importantly, the candidate's research will make extensive use of AnE's unique long-term research on populations of hole-breeding passerines in the wild (four populations, 1955-present) focusing on the interface between individual- and population-level research. With this appointment, AnE aims to promote diversity and inclusion. As such, women and people from underrepresented and minority groups are especially encouraged to apply. Scientists at NIOO have no obligation to teach at University level, but supervision of external Master's and PhD students is expected as part of normal research activity. Scientific communication is carried out in English, so knowledge of the Dutch language is not a prerequisite for this position, but a commitment to learning the language is expected in longer-term staff. Appointment The Tenure track/ Senior Researcher position will be hosted at NIOO-KNAW, Wageningen. The fulltime position (1,0 FTE) is for a tenure track or a senior researcher position. Tenure track appointments will be on a temporary basis for a maximum of six years. After three and five years of employment there will be an assessment of performance based on criteria that will be specified at the appointment. Based on these assessments the researcher may be promoted to the rank of senior researcher with tenure. Depending on your experience, the maximum gross salary is euro 5,211 per month (scale 11) in accordance with the Collective Labour Agreement of Dutch Universities, excluding 8% vacation allowance and an 8.3% year-end bonus. Information Information on the Netherlands Institute of Ecology (NIOO) can be found on this website and from Prof. Marcel E. Visser (m.visser@nioo.knaw.nl or +31-317-473439), head of the Animal Ecology department.

Applications The application, in English, must be submitted electronically via Academic Transfer (apply now button). Please include a cover letter summarizing motivation and brief research statement, a complete curriculum vitae and three referees (name, address, telephone & email). Deadline for applications is 20 December 2021. The interviews will take place on 19 and 20 January 2022.

The full description of the position can be found at https://nioo.knaw.nl/nl/node/15022 . "Rowe, Melissah" <M.Rowe@nioo.knaw.nl>

## NortheasternU EvolutionaryGenomics

The Department of Marine and Environmental Sciences at Northeastern University invites applications for a tenure-track position in Ecological/Evolutionary Genomics.

We are interested in candidates who, in the broadest terms, leverage genomic approaches and data to study and improve the sustainability of ecosystems challenged by environmental change. Candidates may use field, laboratory/experimental, and/or computational approaches to provide novel solutions related to the effects of climate change or habitat perturbation on the health of natural systems, thereby improving efforts focused on ecological restoration, stock assessment of fisheries, conservation and management, selective breeding, aquaculture, or other important outcomes. The department is looking to expand its expertise in genome sequencing and assembly, comparative genomics, phy-

logenomics, and quantitative genetics/genomics.

Learn more at:

https://careers.hrm.northeastern.edu/en-us/job/-508339/open-rank-assistantassociate-professor Candidates will find a diverse and welcoming community - learn more at https://cos.northeastern.edu/about/-diversity/ Information about the Department:

The Department of Marine and Environmental Sciences is strongly interdisciplinary, with 22 tenured and tenure-track faculty (7 of whom have joint appointments in other colleges across Northeastern) and 4 non-tenure-track teaching faculty. In addition to internationally recognized efforts in coastal sustainability research via the Coastal Sustainability Institute, research in the Department of Marine and Environmental Sciences spans broad disciplines that are central to environmental and sustainability science and the life sciences, including ecological and evolutionary genomics, biogeochemistry and climate change science, coupled human-natural systems, nature-based solutions, coastal dynamics, ecological restoration, fisheries science, and the ecology and evolution of natural systems. The Department of Marine and Environmental Sciences administers or co-administers programs in Environmental and Sustainability Science, Environmental Studies, Ecology and Evolutionary Biology, and Marine Biology for over 400 undergraduates, and it trains over 120 students in PhD, Masters and Professional Masters programs. The Department is also home to the Marine Science Center and the Ocean Genome Legacy and is contributing to the BRIDGE (Breakthrough Informatics for Data for Genes to Ecosystems) Research Cluster. With the College of Science under new leadership, the College and the Department of Marine and Environmental Sciences are in a vibrant expansion phase.

K. E. Lotterhos, PhD (she/hers) 2021-2022 Fulbright Scholar, Sweden Associate Professor Department of Marine and Environmental Sciences Northeastern University Marine Science Center 430 Nahant Rd Nahant, MA 01908

"Lotterhos, Katie" <k.lotterhos@northeastern.edu>

## NorthernMichiganU BiologyDepartmentHead

Northern Michigan University is seeking applications for the position of Professor and Head of the Biology Department. This is a full time, 12-month, tenured administrative position that requires a Ph.D. in a biological science. The successful candidate will have an established record of excellence in teaching and research, in mentoring students, and in administering programs.

The Head of Biology is expected to manage the responsibilities of 16 tenure-track faculty and 6 non-tenure track faculty serving approximately 700 undergraduate majors and 30 M.S. students. They will advocate for the mission of the department. The Head will provide leadership in promoting strong educational programs, supporting research programs, and fostering diversity, equity and inclusion. A commitment to working cooperatively with university administration, facilitating multidisciplinary scholarship, and engaging in community outreach is essential.

For more information and to apply, visit: https://-nmu.edu/biology/department-head-search Review of applications for this position begins December 10th, 2021

Katherine C. Teeter (she/her), kteeter@nmu.edu Associate Professor & Graduate Program Director, Biology Northern Michigan University

Kate Teeter <kteeter@nmu.edu>

## OregonStateU EvolutionaryBiology

College of Science, Department of Integrative Biology

Assistant Professor - Integrative Biologist

Position Description: The Department of Integrative Biology invites applications for a full-time (1.00 FTE), 9-month, tenure-track Assistant Professor in the field of Integrative Biology. This person is expected to develop a vigorous, externally funded research program that will enhance existing strengths in integrative biology, to teach and mentor undergraduate and graduate students, to participate in service and to advance our mission in diversity, equity, justice and inclusion. Candidates with research expertise in (i) developmental and/or physiological processes in animals systems, (ii) ecology and/or evolution of animal behavior, (iii) ecology and/or evolution of host-microbe interactions, are especially encouraged to apply. The anticipated appointment date is Fall 2022. Applicants must have earned a doctorate (or foreign equivalent) in Biology (or related field). Postdoctoral experience is preferred. For a complete list of required and preferred qualifications, please see the full position description available

at http://jobs.oregonstate.edu (Posting #P05003UF).

About the Department: The Department of Integrative Biology receives support for its academic program from the College of Science and has a doctoral program that is internationally ranked. Our existing faculty have expertise in marine, aquatic, and terrestrial ecology, evolution, organismal biology, disease ecology, and conservation biology, and take innovative and quantitative approaches that span molecules to ecosystems. We are thus seeking a colleague with high potential for engaging in both self-initiated and collaborative research across fields. In addition to the faculty's activities in research and service, the department has teaching responsibilities in nearly every undergraduate major at OSU, and an important role to play in enhancing student success. Thus, we are particularly interested in candidates with a demonstrated commitment to excellence in teaching, and experience collaborating with, advocating for, and mentoring people of diverse backgrounds. The department is committed to fostering an open and inclusive environment in which to learn and work, enhancing the diversity and equity of the university community, and improving access to higher education for underrepresented students. More information about the department is available at http://ib.oregonstate.edu . About OSU: The College of Science provides a core instructional role at Oregon State University (OSU), supporting the ideals of learning, discovery, and engagement that are the foundation of a land-grant university. The College embraces instruction and research, in disciplines ranging from the physical, mathematical, statistical sciences to the life sciences that are based in unbiased inquiry and a dedication to discovery and innovation. The College of Science is committed to partnering with industry and public agencies to address some of the most compelling challenges of today and tomorrow. The College of Science is an essential partner for three of the university's world-class research centers, namely the Linus Pauling Institute, the Hatfield Marine Science Center, and the Center for Quantitative Life Sciences. OSU is also home to large regionally and nationally important vertebrate research collections that include fish, reptiles/amphibians, birds and mammals. OSU is one of only two American universities to hold the Land Grant, Sea Grant, Space Grant, and Sun Grant designation and is a Carnegie Doctoral/Research-Extensive university. OSU is located in Corvallis, a community of 57,000 people situated in the Willamette Valley between Portland and Eugene. Ocean beaches, lakes, rivers, forests, high desert, and the rugged Cascade and Coast Ranges are all within a 100-mile drive of Corvallis. Approximately 25,700 undergraduate and 4,700 graduate students are enrolled at OSU, with US students of color, first generation college students, and international students representing 25%, 23%, and 11% of the student population, respectively. The university has an institution-wide commitment to inclusive excellence, recognizing that success in all our endeavors is dependent on, and directly tied to, equitable access to opportunities and how we value, engage, and include the rich diversity within our community. There is an expectation that employees will support and model these shared fundamental values. OSU's commitment to student success includes hiring, retaining, and developing diverse faculty to mentor and educate our undergraduate and graduate students from entry through graduation. This commitment is reflected in OSU's membership in the University Innovation Alliance, a national network of 11 public universities with a shared mission of increasing

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## PrattInstitute EvolutionInstructor

The Department of Mathematics and Science < https://www.pratt.edu/academics/liberal-arts-and-sciences/mathematics-and-science/ > at Pratt (Brooklyn Campus), seeks part-time faculty applicants for the Spring 2022 semester (and beyond) to teach MSWI-260C, Evolution < https://commons.pratt.edu/msci/mswi-260c-evolution/ >, an introductory/non-majors course.

Our ideal candidate is a late-career (ABD) graduate student or early-career post-doc who is interested in teaching nonmajors.

Interested candidates should apply here:

https://apply.interfolio.com/99028 Questions about this opportunity? Please contact me!

-Chris Jensen (cjensen@pratt.edu)

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*Christopher Jensen, PhD* | Acting Chairperson

*PRATT INSTITUTE* Math and Science 200 Willoughby Avenue | Activities Resource Center G 43 | Brooklyn, NY 11205 phone: 718.687.5638 | fax: 718.399-4482 | cjensen@pratt.edu *Pronouns = he, him, his / Please feel free to call me "Chris"*

* < https://www.pratt.edu/the-institute/diversity-and-inclusion/dei-allies/ >*

Christopher Jensen <cjensen@pratt.edu>

## QueenMaryLondon ComputationalBiology

See job posting:https://www.jobs.ac.uk/job/CKH355/-lecturer-in-computational-biology-teaching-and-research We are seeking an ambitious Lecturer (Assistant Professor), who will be based in the Department of Biology,School of Biological and Behavioural Sciences at Queen Mary University of London, Uk.This position is designed to strengthen our capacity in Computational Biology, broadly defined.

We are seeking candidates who develop and/or apply innovative approaches in Artificial Intelligence (AI) for instance to interpret big data in a field of ecology, biodiversity or evolutionary genetics. As such, we encourage applications from candidates who want to bridge disciplines using AI and especially from researchers with expertise in one of the following areas:

- Genomics, - Evolutionary medicine, - Functional genetics, - Disease ecology, - Emerging technologies in ecology.

You should have a PhD inEvolution, Ecology, Data Science, and/or relevant professional qualification and/or equivalent professional experience. Youshould be able to demonstrate recent papers of high quality in your field and across disciplines, competitively awarded research grant income, and potential to establish a successful research group.

The School of Biological and Behavioural Sciences is a large and expanding academic unit, which provides a supportive and friendly environment and encourages interdisciplinary research.The post is based at the Mile End Campus in London. It is a full time, permanent appointment.

We offer competitive salaries(Grade 5-6, 43,069 - 53,625 per annum, pro-rata), inclusive of London Allowance,access to a generous pension scheme, 30 days' leave per annum, a season ticket loan scheme, staff networks and access to a comprehensive range of personal and professional development opportunities. In addition, we offer a range of work life balance and family friendly, inclusive employment policies, flexible working arrangements, and campus facilities including an on-site nursery at the Mile End campus.

Queen Mary's commitment to our diverse and inclusive community is embedded in our appointments processes. Adjustments will be made at each stage of the recruitment process for any candidate with a disability. We are open to considering applications from candidates wishing to work flexibly. The School holds a Silver Athena SWAN Award andas part of its commitment to the Athena SWAN principles, we strongly encourage applications from under-represented groups in academia.

To apply for the role, please visithttps://-webapps2.is.qmul.ac.uk/jobs/job.action?jobRef=-QMUL26765 .Please include a CV and 2-page summary outlining your research.

Closing date for applications is 25 November 2021. Interviews are expected to be held shortly thereafter.

Thank you.

Chris.

–

Christophe Eizaguirre Deputy Dean for Research Impact Head of Biology Department

Professor in Evolutionary and Conservation Genetics Queen Mary University of London School of Biological and Chemical Sciences Mile End Road, Fogg Building 6.04 E1 4NS London

Twitter: @EizaguirreLab Website: www.qmul.ac.uk/-eizaguirrelab Tel: +44 (0) 207 882 6982 Email: c.eizaguirre@qmul.ac.uk

Christophe Eizaguirre <c.eizaguirre@qmul.ac.uk>

## RutgersU PopGenomics eDNA

Jobs:RutgersU.ResearchAssociateMolecularEcology

The Department of Ecology, Evolution, and Natural Resources at Rutgers University is searching for an exceptional Research Associate to lead its core Molecular Ecology facility. This is a non-tenure-track faculty position with extensive opportunities for leadership across research, teaching, and institutional activities. The shared facility is dedicated to the use of population genomics and eDNA to study the ecology, evolution, and conservation of biodiversity globally.

The successful candidate for this position will: - Have

expertise in all steps of molecular ecology research, from study design through publication - Have a demonstrated commitment to reproducible and open science - Develop their research portfolio with new projects and take leadership roles in existing projects - Enable broad accessibility of the facility by training students and other researchers, providing technical assistance, and other activities - Maintain the Molecular Ecology facility as a safe, organized, and productive work environment - Strong experience contributing to diversity, inclusion, and equity

We offer an exciting and interdisciplinary work environment not only through the department (https://-deenr.rutgers.edu), but also through the affiliated Ecology & Evolution graduate program; the Institute of Earth, Ocean, and Atmospheric Sciences; the Department of Marine and Coastal Sciences; the Pinelands Field Station; Hutcheson Memorial Forest; Tuckerton Marine Field Station; Chrysler Herbarium; and Haskin Shellfish Research Lab. Information on existing projects in the Molecular Ecology facility is available from the Pinsky, Maslo, and Lockwood lab websites.

We are especially interested in candidates who understand the barriers facing minorities who are underrepresented in ecology & evolution and in higher education careers (as evidenced by life experiences and educational background), and who have experience in equity and diversity with respect to teaching, mentoring, research, life experiences, or service towards building an equitable and diverse scholarly environment.

Minimum Education and Experience - A Ph.D. in ecology & evolution or a related scientific field

Required Knowledge, Skills, and Abilities: - Demonstrated ability to design, conduct, and publish world-class research in population genomics - Success or potential for success raising external funds for research - Experience advising and mentoring student research projects - Experience with population genomics, bioinformatics, and next- generation sequencing in non-model organisms - Understanding of and success promoting diversity, equity, and inclusion in academic environments - Exceptional organizational and communication skills - Ability to maintain a population genomics lab and coordinate multiple projects - Independence and self-directed work ethic

Physical Demands and Work Environment: - The associate will have access to a modern population genomics lab and the extensive computing resources at Rutgers University - Ability to occasionally list 30 lbs

This is a full-time faculty position with extensive benefits. See https://uhr.rutgers.edu . For full consideration, please submit a cover letter, CV, research statement, DEI statement, and names and contact information for three (3) references before December 6, 2021 at https://-jobs.rutgers.edu/postings/140918 For questions, please contact Malin Pinsky (malin.pinsky@rutgers.edu).

As America's eighth oldest institution of higher learning and as a member of the prestigious Association of American Universities (AAU), Rutgers is New Jersey's premiere public research university. Rutgers is one of the largest employers in the State of New Jersey. We offer competitive salaries, generous benefits, and the chance to be a part of an exciting campus community. At Rutgers, we have top national experts working on the critical issues that affect all of humanity. Whether it's broadening our understanding of the universe around us, developing medical and technological innovation, or educating the leaders of tomorrow, it's all happening at Rutgers today.

Rutgers University is committed not only to the students and the State that we serve, but also to the faculty and staff who work on our campuses. Rutgers' commitment to its employees includes maintaining and fostering a safe, diverse, and respectful workplace environment, creating employment opportunities for our nation's military veterans, and ensuring accessibility and accommodation for individuals with disabilities.

Rutgers is an Affirmative Action/Equal Opportunity Employer.

malin.pinsky@gmail.com

## SanFrancisco AnthropologyCurator

The California Academy of Sciences is seeking candidates to fill the Irvine Chair of Anthropology. The Irvine Chair focuses on research that advances fundamental knowledge within the fields of archaeology, cultural and/or biological anthropology. The new curator would join nearly 100 staff and students in the Institute for Biodiversity Science and Sustainability (IBSS) and help us address some of the world's most pressing problems related to biodiversity conservation, evolutionary processes, ecosystem health, and global environmental change ?¿' and communicate findings to diverse audiences. The successful candidate will be expected to maintain an active research program in anthropology (archaeology, cultural and/or biological), provide service to the scientific and Academy communities, pursue external funding, engage in outreach activities, and mentor

students. In addition, this position helps steward the Academy's anthropology collection, which includes over 16,000 objects encompassing ethnographic and archaeological material from around the globe with particular strengths in California, the US Southwest and Pacific Islands. The Irvine Chair will join the Academy's innovative team striving to lead the world in addressing biodiversity conservation through research, science-based conservation, and engaging communities in our work. Currently, the Academy has a new strategic plan including three initiatives ??" Hope for Reefs, Thriving California, and Islands 2030 ?¿' that leverage biodiversity science, environmental learning, and collaborative engagement to regenerate fragile ecosystems around the world. Learn more at https://www.calacademy.org/-about-us/major-initiatives . 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 over 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, high-performance computing, microscopy, scientific visualization, etc. The Academy also has a powerful community science engine in our Center for Biodiversity & Community and iNaturalist, which engages global observers in high-quality biodiversity data collection.

This is a full-time (10-month) position and applicants at the Assistant and Associate levels will be given consideration.

Applications must be submitted through the Academy's careers page: https://-californiaacademyofsciences.applytojob.com/-apply/bAw0eq6bgT/AssistantAssociate-Curator-Of-Anthropology A complete application should consist of: (1) Cover letter up to two pages; (2) Curriculum vitae; (3) Three two-page vision statements: one outlining your scientific background and research goals; one on your mentoring & engagement experience and goals; and a third on how your professional goals align with the Academy mission and/or strategic initiatives; (4) Two to three examples of research publications and two to three examples of other work (outreach publications, media projects, etc.); and (5) Names and contact information of at least three references. You should notify your references that they may be contacted.

Review of applications will begin December 15, 2021 and continue until the position is filled.

For submission questions related to JazzHR, please contact Mari Morell, Talent Acquisition Recruiter (mmorell@calacademy.org) or Karen Umana, Recruiting Coordinator (kumana@calacademy.org). Questions about the position should be sent to Dr. Rayna Bell and Dr. Nathalie Nagalingum, Search Committee co-Chairs (rbell@calacademy.org, nnagalingum@calacademy.org)

Please note: As of August 27, 2021 Academy employees and volunteers are required to provide proof of COVID-19 vaccination or undergo testing and provide negative test results before they are able to work on-site or off-site with others.

We are committed to ensuring diversity, equity, accessibility, and inclusion are intrinsic to Academy culture and operations, from recruitment and retention to science and advocacy. Explore Our Commitment to Racial Equity to learn about our intentional engagement of traditionally excluded groups in an effort to spark interest in or foster pathways to scientific careers

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## SGN Frankfurt EvolutionaryBiologist

Job Announcement ref. #12-21007

The LOEWE Center for Translational Biodiversity Genomics (LOEWE-TBG, https://tbg.senckenberg.de/) aims at making the genomic basis of biological diversity accessible for basic and applied research. Building on genome sequencing and analysis, LOEWE-TBG research topics range from comparative genomics, natural products genomics, and genomic biomonitoring to functional environmental genomics. LOEWE-TBG is based in Frankfurt am Main, Germany, and is a joint venture of the Senckenberg Gesellschaft für Naturforschung (SGN), Goethe-University Frankfurt, Justus-Liebig-University Giessen and Fraunhofer Institute for Molecular Biology and Applied Ecology.

The Senckenberg Gesellschaft für Naturforschung and the LOEWE-TBG invite applications for a

Evolutionary Biologist/Ecotoxicologist/Bioinformatician (m/f/d)

(full time position)

About the project

In this LOEWE-TBG project, we want to assess, how anthropogenic substances influence the mutation rate of metazoan organisms. Based on an existing genome-wide mutation rate test, we thus want to develop and introduce new ecotoxicological assessment methods that will be eventually internationally established within the ISO framework. Furthermore, the project encompasses population genomic analyses of the fitness consequences of the applied substances. It is planned to work with several ecotoxicological model species such as Chironomus riparius, and Eisenia fetida.

Your tasks

Developing, maintaining and running high-throughput pipelines for the assembly and annotation of de novo genomes from diverse eukaryotesOrganizing and documenting the work-flow from receiving the raw data over issuing the assembled genomes to the client users to archiving in public databasesCommunication with user groups, service providers and external database managers

Your profile

The ideal candidate (m/f/d) commands two or more of the following skills plus the ability and will to acquire the missing one:

PhD degree in bioinformatics / computational biology, genomics or a related areaPopulation genomic experience with individual resequencing dataMapping to reference genome, genotype calling, awareness of data quality issues etc.Experience with ecological / ecotoxicological experimentsProgramming and / or scripting experience to adjust / improve existing bioinformatic pipelinesAbility to work in close collaboration with several partnersExcellent communication skills

What is awaiting you?

An interesting task in a dynamic team of researchers in an internationally renowned research institutionThe opportunity to gain experience in the above-mentioned research fieldThe occasion to build a network with scientists in interdisciplinary fieldsFlexible working hours - annual special payment - company pension scheme - Senckenberg badge for free entry in museums in Frankfurt, the Zoo, botanical garden and Palmengarten - leave of 30 days/year - a subsidized job ticket for public transport.

Place of employment: Frankfurt am Main

Working hours: Full time (40 hours/week)

Type of contract: Initially limited for 2 years

Salary: According to the collective agreement of the State of Hesse

(pay grade E 13)

The contract should start as soon as possible in 2022 and is initially limited to two years. The employer is the Senckenberg Gesellschaft für Naturforschung who supports equal opportunity of men and women and therefore strongly invites women to apply. Equally qualified handicapped applicants will be given preference.

How to apply

Please send your application, mentioning the reference of this job announcement (ref.#12-21007) by e-mail until December 15th, 2021 and include

a cover letter detailing research interests and experience (maximum 1 page),a detailed CV and a copy of your certification (all transcripts and grades)

To: recruiting@senckenberg.de or use our online application form on our homepage www.senckenberg.de . For scientific information please contact Prof. Dr. Markus Pfenninger, markus.pfenninger@senckenberg.de.

Mit freundlichen Grüßen / Sincerely yours

Isabel Gajcevic, M.A.

Personalsachbearbeiterin

SENCKENBERG Gesellschaft für Naturforschung

(Rechtsfähiger Verein gemäß ç 22 BGB)

Senckenberganlage 25

60325 Frankfurt am Main

Besucheradresse: Mertonstraße 17-21, 60325 Frankfurt am Main (1. OG)

Telefon/Phone: 0049 (0)69 / 7542 -

Leiterin Personal & Soziales

- 1458 Loke, Uta

Stellv. Leiterin Personal & Soziales

- 1319 Elsen, Carina

Team Personalbeschaffung (Recruiting)

- 1564 di-Biase, Maria

- 1478 Gajcevic, Isabel

- 1313 Helm, Jessica

Fax: 0049 (0)69 / 7542-1445

Mail: recruiting@senckenberg.de Direktorium: Prof. Dr. Klement Tockner, Prof. Dr. Andreas Mulch, Dr. Martin Mittelbach, Prof. Dr. Katrin Böhning-Gaese, Prof. Dr. Karsten Wesche

Präsidentin: Dr. h. c. Beate Heraeus

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## StMarysCollegeMaryland EvolIntegrativeBiologist

Evolutionary biologists are encouraged to apply.

The Department of Biology at St. Mary's College of Maryland invites applications for a tenure-track Assistant Professor position in Integrative Biology beginning August 2022. We seek a biologist with demonstrated potential for excellence in undergraduate education and mentorship. Teaching responsibilities include participating in biology core courses as needed (Contemporary Biosciences, Principles of Biology I, Principles of Biology II, Genetics, Ecology and Evolution) and upper division electives in their specialty. Ph.D. required; postdoctoral training and/or teaching experience preferred. We seek candidates with a commitment to excellence in teaching as well as maintaining an active research program that has the potential to involve undergraduates.

With the support of the Office of Inclusive Diversity, Equity, Access, and Accountability < https://www.smcm.edu/inclusive-diversity-equity-access-accountability/ > (IDEA2), *St. Mary's College has designated this position as part of a cluster hire designed to increase the diversity of SMCM faculty.* Programs participating in this cluster hire include Anthropology, Biology, Computer Science, Economics, and Psychology. The College seeks to build and support a network of committed scholars whose pedagogical practice– across their diverse fields of specialization– improves the educational experience of underrepresented students. Candidates who demonstrate commitment to and past experience supporting BIPOC, first generation, and low income students will be given preference. St. Mary's College is particularly interested in candidates whose teaching is culturally responsive, and grounded in strategies that both increase student belonging and reduce equity gaps in student performance. New faculty in this cluster hire cohort will be supported by research funds up to $5000 in the first two years, paid professional development opportunities, individualized strategic mentoring, campus and community onboarding, and a dedicated steering committee to oversee the long-term success of the initiative and its participants.

Non-sectarian since its founding, St. Mary's College of Maryland is a public Carnegie Baccalaureate, Arts and Sciences institution which has been designated as Maryland's public honors college. We are located in St. Mary's City, 70 miles southeast of Washington, D.C. With selective admissions policies, academically talented students, and a rigorous curriculum, we offer a small college experience similar to that found at exceptional private colleges. St. Mary's faculty benefit from a comprehensive program of support for scholarship, research, travel, and curriculum development, including course releases for pre-tenure faculty and leaves for tenured faculty. The quality of life is enhanced by the recreational opportunities of the Chesapeake region and by our proximity to Washington, D.C. and Baltimore.

St. Mary's College (www.smcm.edu) embodies diversity and inclusion in its mission. We create an environment that recognizes the value of individual and group differences, and we encourage inquiries from applicants who will contribute to our cultural and ethnic diversity. Application materials should include a cover letter in which the candidate describes how their teaching at the College will contribute to a culture of inclusion and campus diversity, curriculum vitae (including e-mail address), statement of teaching philosophy, statement of research interests, and evidence of teaching effectiveness (if available). Applicants should also arrange for the submission of three confidential letters of recommendation. Applicants can request confidential letters through their Interfolio Dossier account, which may be uploaded for free by the letter writer directly to our Interfolio-hosted account for committee review. Employment will be contingent upon successful completion of a criminal background check and proof of COVID-19 vaccination, medical and religious exemptions will be considered. Applications are being accepted online at: *apply.interfolio.com/98010 < https://apply.interfolio.com/98010 >*. Questions may be directed to Dr. Kevin Emerson.

Review of applications will begin December 1, 2021 and continue until the position is filled. St. Mary's College of Maryland is an affirmative action/equal opportunity employer.

Visit our website: www.smcm.edu*/hr* Employment will be contingent upon successful completion of a criminal background check.

*St. Mary's College of Maryland is an affirmative action/equal opportunity employer.*

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Kevin J Emerson, PhD Associate Professor of Biology Biology Department St. Mary's College of Maryland 18952 E. Fisher Rd St. Mary's City, MD 20686-3001 kjemerson@smcm.edu

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## StonyBrookU PlantCommunityEvolution

Assistant/Associate Professor - Plant Community Ecologist

The Department of Ecology and Evolution at Stony Brook University invites applications for a faculty position at the rank of Assistant or Associate Professor in the area of plant community ecology as part of a university-wide focus on resilient coastal communities and critical infrastructure. We seek an established scholar with at least four years of independent research experience and an active research program focused on the interaction of plants with their environment. In this context, this faculty member would collaborate with faculty in the Department of Geosciences and in the School of Marine and Atmospheric Sciences.

We seek a candidate with the potential to augment or build upon one or more of the Department of Ecology and Evolution's current research strengths, develop initiatives that will enhance the department's tradition of interdisciplinary research, and teach undergraduate and graduate courses in the areas of community ecology and plant diversity. Long Island includes over 100,000 acres of protected pine barrens and over 300 miles of shoreline. Our campus has a 14,000 sq ft. greenhouse building containing 15 individually controlled rooms and 10 growth chambers. The Flax Pond Research Laboratory contains a smaller greenhouse with access to running seawater. Details of the department's areas of research emphasis and current facilities may be found at http://www.stonybrook.edu/commcms/ecoevo/ .

The successful candidate must have a Ph.D. in ecology, evolution, or a related field at the time of appointment with at least four years of independent research experience and an externally-funded research program. The successful candidate must have the clear potential to establish an internationally recognized research program relevant to Long Island watersheds and mentorship of graduate and undergraduate students.

Review of applications will start on November 15, 2021; applications will continue to be accepted until December 15, 2021. Applications must be submitted through Interfolio at https://apply.interfolio.com/97786 .Applications must include a cover letter, CV, research, teaching, and diversity statements, current and recent grant support, and the names and contact information of three references. The research statement should clearly address the potential to build collaborations in the pure or applied aspects of nutrient cycling in coastal watersheds and environmental remediation. Applications should be addressed to Search Committee, Department of Ecology and Evolution, Stony Brook University, Stony Brook, NY, 11794-5245, USA. Questions should be directed to the Chair of the Search Committee, Prof. Heather Lynch (heather.lynch@stonybrook.edu).

Robert Thacker <robert.thacker@stonybrook.edu>

## UArizona WildlifeConservation

Title: Assistant Professor, Wildlife Conservation and Disease Department: School of Natural Resources and the Environment URL: https://snre.arizona.edu Location: Main Campus

The School of Natural Resources and the Environment (SNRE) at the University of Arizona (UA) invites applications for a tenure-track Assistant Professor of Wildlife Conservation and Disease Ecology. We seek a scientist whose research focuses on applied ecology and conservation of wildlife, and in understanding and managing zoonotic and wildlife diseases. We especially encourage individuals with experience in avian ecology and/or One Health initiatives, but invite those with expertise in all taxonomic groups. This is a 9-month academic position with research (60%), teaching (30%), and service duties (10%).

The successful candidate will contribute to the instruc-

tional mission of SNRE and build a research program to enhance and complement existing strengths in SNRE and UA's One Health initiatives to foster synergies that address the growing disease challenges that threaten the persistence of wild species and that adversely affect human health. Successful candidates will show commitment to fostering diversity, equity, and inclusion in all aspects of professional life, and possess the ability to work effectively within a broadly diverse community of students, scholars, and other stakeholders of Arizona's only land grant university.

Apply by December 10, 2021, for full consideration. Preferred start date is August 15, 2022.

Please contact Rachel Gallery, Search Committee Chair, with any questions: rgallery@arizona.edu

Full job posting and instructions are at following link: https://arizona.csod.com/ux/ats/careersite/4/home/requisition/7350?c=arizona Culver@ag.arizona.edu

## UCalifornia SanDiego DiseaseEvolution

Assistant, Associate, or Full Professor in Disease Ecology and Evolution The Division of Biological Sciences (https://biology.ucsd.edu/), Section of Ecology, Behavior and Evolution, invites applications for a faculty position in Disease Ecology and Evolution at the tenure-track Assistant, Associate, or Full Professor levels. Candidates working on a broad range of research topics, systems, and approaches are invited to apply. Those focused on integrating field, lab, and theoretical approaches for understanding interactions in natural settings are strongly encouraged. Candidates interested in interacting with UC San Diego's School of Medicine, School of Public Health, or the innovative disease vector research being conducted at the Tata Institute for Genetics and Society are also encouraged to apply.

Applications must be submitted through the University of California San Diego's Academic Personnel RECRUIT System at:

Tenure-track Assistant Professor application: https://apol-recruit.ucsd.edu/JPF02969 Associate and Full Professor application: https://apol-recruit.ucsd.edu/JPF02970 Review of applications will commence December 1, 2021 and will continue until position is filled.

Full ad: https://jobs.sciencecareers.org/job/572382/assistant-associate-or-full-professor-in-disease-ecology-and-evolution/?TrackID=3 E-mail Justin Meyer jrmeyer@ucsd.edu with questions.

"Meyer, Justin" <jrmeyer@ucsd.edu>

## UCalifornia SanDiego EvoDevoBiology

The Division of Biological Sciences (https://biology.ucsd.edu/), Section of Ecology, Behavior and Evolution invites applications for a faculty position in Developmental Evolutionary Biology at the tenure-track Assistant Professor level. We are looking for a scientist who investigates evolutionary questions through mechanistic studies of the developmental or physiological processes that produce phenotypic variation. Research topics could include, but are not limited to: evolutionary innovation - including the evolution of new cell types, new characters, and new levels of organization; the origin, evolution, and consequences of developmental constraints; phenotypic plasticity and genetic accommodation; and the evolution of genotype-phenotype maps. Applicants who incorporate field, laboratory, and/or theoretical components in their research would be welcome. The successful applicant will join a growing coterie of labs at UCSD working at the intersection of developmental and evolutionary biology.

The Division of Biological Sciences at UCSD is a vibrant center of scientific discovery, innovation, and collaboration. Our large research base spans many areas of biology and has one of the most celebrated graduate programs in the country. We are committed to academic excellence and diversity within the faculty, staff, and student body. This is where discovery comes to life.

All candidates must have earned a Ph.D. or equivalent degree, and be committed to teaching at the undergraduate and graduate levels. In addition to excellence and creativity in research and scholarship, successful candidates must also demonstrate a commitment to equity and inclusion in higher education. We are especially interested in candidates who have created or contributed to programs that aim to increase access and success of underrepresented students or faculty in the sciences, or have detailed plans to accomplish such goals.

Salary is commensurate with qualifications and based on University of California pay scales.

Review of applications will commence December 1, 2021

and will continue until position is filled

To apply or for more information, please visit https://apol-recruit.ucsd.edu/JPF02973 scott rifkin <sarifkin@ucsd.edu>

## UCalifornia SantaBarbara EvolBiolAnthropologist

The title is "Biological Anthropologist" but considers scientists from any area of life and social sciences.

Here's text:

BIOLOGICAL ANTHROPOLOGIST

The University of California, Santa Barbara, Department of Anthropology, Integrative Anthropological Sciences (IAS) Unit, is currently accepting applications for a tenure- track position at the Assistant Professor level, with a start date of July 1, 2022.

Seeking a scientist with a research program addressing health disparities from evolutionary and/or ecological perspectives. Someone studying health consequences of inequality in human populations is preferred but a focus on other primates directly relevant to humans, will also be considered.

Expertise should include at least one of the following subfields: ecological immunology, host-parasite dynamics, disease ecology, social determinants of health, nutritional ecology, microbiome, human-environment dynamics, energetics, growth and development, evolutionary medicine, reproductive ecology, infectious disease, aging, life course epidemiology, genomics, or related areas of study. The applicant's research program should effectively complement and augment existing strengths to advance the mission of the IAS Unit and also contribute expertise to the Broom Center for Demography. Geographical area of specialization is open.

Candidates must have a theoretically rigorous research program grounded in laboratory techniques; those who also have a field component are preferred. The successful candidate will help direct the Biobehavioral Health Laboratory, teach at least one lab-based course and upper-division courses in human biology, social epidemiology, evolutionary anthropology, and other areas related to the candidate's specialization. History of successfully mentoring graduate and undergraduate students and proven success in obtaining extramural funding, are both critical requirements.

The department is especially interested in candidates who can contribute to the diversity and excellence of the academic community through research, teaching and service as appropriate to the position. Applicants must have completed the Ph.D. at the time of appointment.

Applications must include the following criteria: (1) a one-page cover letter emphasizing fit to the position and IAS Unit, (2) a 2-3 page statement detailing past and current research experience and 5 year research plan, (3) a maximum 2-page statement addressing how your past and/or potential contributions to diversity, equity and inclusion will advance UCSB's commitment to inclusive excellence, (4) a curriculum vitae, (5) name and email address of three reference letter writers, (6) three representative publications.

Submit application via UC Recruit: https://-recruit.ap.ucsb.edu/apply/JPF01988 Please direct any questions to Academic Personnel Coordinator, Debbie Fingerle, dfingerle@anth.ucsb.edu . For primary consideration, submit application and materials on or before December 23, 2021. Interviews are to commence in February 2022.

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law.

As a condition of employment, you will be required to comply with the University of California SARS- CoV-2 (COVID-19) Vaccination Program Policy https://-policy.ucop.edu/doc/5000695/SARS-CoV- 2_Covid-19. All Covered Individuals under the policy must provide proof of Full Vaccination or, if applicable, submit a request for Exception (based on Medical Exemption, Disability, and/or Religious Objection) or Deferral (based on pregnancy) no later than the applicable deadline. For new University of California employees, the applicable deadline is eight weeks after their first date of employment. (Capitalized terms in this paragraph are defined in the policy.)

Michael Gurven Professor Integrative Anthropological Sciences Unit, Chair Department of Anthropology phone: (805)893-2202 web: https://gurven.anth.ucsb.edu Michael Gurven <gurven@anth.ucsb.edu>

## UColorado Denver EvolutionaryPhysiology

The Department of Integrative Biology (http://www.ucdenver.edu/academics/colleges/CLAS/Departments/biology/Pages/Biology.aspx) on the University of Colorado Denver downtown campus seeks to fill a new tenure-track faculty position: Assistant Professor in Physiology (Job #23537 at www.cu.edu/cu-careers). The hiring range for this position has been established at $67,000 to $72,000 Review of applications will begin on 15 December 2021, and will continue until the position is filled. UCD is dedicated to ensuring a safe and secure environment for our faculty, staff, students and visitors. To achieve this goal, we conduct background investigations for all prospective employees. The University of Colorado is committed to diversity and equality in education and employment.

More information and applications accepted here: www.cu.edu/cu-careers Job #23537

"Infante, Carlos" <CARLOS.INFANTE@UCDENVER.EDU>

## UConnecticut VascularPlantEvolutionaryBiology

Tenure-track Job at the University of Connecticut, Vascular Plant Evolutionary Biology

The University of Connecticut (UConn) invites applications for a tenure-track or tenured faculty position at the rank of Assistant, Associate or Full Professor in the Department of Ecology and Evolutionary Biology (EEB). The successful candidate will be named to a 5-year term as the inaugural recipient of the rotating Rosalind Endowed Chair in Ecology and Evolutionary Biology. We encourage applications from vascular plant evolutionary biologists working in, but not limited to, the following research areas: biodiversity discovery at the genomic and organismal level; systematics; adaptations and speciation; population and/or conservation genetics; historical and ongoing processes underlying plant distributions; or species interactions related to diversity. The successful individual will teach an upper division course related to plant diversity and evolution as well as others meeting departmental needs. The successful individual may serve as Director of the George Safford Torrey Herbarium. This person will have an outstanding record of professional accomplishments commensurate with appointment at the rank of Associate or Full Professor, with the opportunity for tenure at hire.

The successful candidate will (1) develop, sustain and grow an externally funded research program of excellence through interdisciplinary collaboration and engagement in vascular plant evolutionary biology and related fields at UConn; (2) teach effective, innovative courses at the undergraduate and graduate levels that meet the curricular needs of the College of Liberal Arts and Sciences and the Department of Ecology and Evolutionary Biology; (3) broaden participation of under-represented groups in STEM, and contribute to an inclusive culture on campus and in the laboratory; (4) advise and mentor students in research, outreach, and professional development; and (5) provide leadership and offer service to UConn, other academic and scientific communities, and the general public.

Founded in 1881, UConn is a Land Grant and Sea Grant institution and member of the Space Grant Consortium. It is the stateˆs flagship institution of higher education and includes a main campus in Storrs, CT, four regional campuses throughout the state, and 13 Schools and Colleges, including a Law School in Hartford, and Medical and Dental Schools at the UConn Health campus in Farmington. The University has approximately 10,000 faculty and staff and 32,000 students, including nearly 24,000 undergraduates and over 8,000 graduate and professional students. UConn is a Carnegie Foundation R1 (highest research activity) institution, among the top 25 public universities in the nation. Through research, teaching, service, and outreach, UConn embraces diversity and cultivates leadership, integrity, and engaged citizenship in its students, faculty, staff, and alumni. UConn promotes the health and well-being of citizens by enhancing the social, economic, cultural, and natural environments of the state and beyond. The University serves as a beacon of academic and research excellence as well as a center for innovation and social service to communities. UConn is a leader in many scholarly, research, and innovation areas. Today, the path forward includes exciting opportunities and notable challenges. Record numbers of undergraduate applications and support for student success have enabled the University to become extraordinarily selective.

MINIMUM QUALIFICATIONS

- Ph.D. (or equivalent foreign degree) in Plant Evolution-

ary Biology or related field. - Demonstrated ability to carry out high-impact, high-quality research, including a strong record of peer-reviewed publications in vascular plant evolutionary biology commensurate with career stage. - Strong record of extramural fellowships or grants. - Minimum of three years of teaching at the undergraduate and/or graduate levels. - Commitment to fostering and supporting diversity, inclusion, and equity through academic and research programs.

PREFERRED QUALIFICATIONS

- Established an independent research program incorporating innovative, interdisciplinary, collaborative approaches that complement existing strengths of EEB at UConn. - Evidence of innovative undergraduate/graduate pedagogy and mentoring. - Evidence of fostering and supporting diversity, inclusion, and equity in their Department and University. - Experience in curation or overseeing curation of institutional herbarium collections. - Demonstrated commitment to fostering and supporting diversity, inclusion, and equity in academic and research programs via past actions or a detailed plan for future work.

APPOINTMENT TERMS

This is a full-time, 9-month, tenure-track Assistant, tenured Associate, or Full Professor position with an anticipated start date of August 23,

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## UGuelph Director Biosurveillance

Program Director: BIOSCAN Centre for Biodiversity Genomics, University of Guelph Temporary full-time from January 1, 2022 to December 31, 2027 Hiring #: 2021-0601

Please read the Application Instructions before applying: https://www.uoguelph.ca/hr/careers-guelph/how-apply The International Barcode of Life Consortium, www.ibol.org, a Canadian not-for-profit corporation, is coordinating a research effort that will register all multicellular species and activate a global biosurveillance system within 25 years. BIOSCAN, its current research program, is an 8-year, $180 million effort involving organizations in 40 nations. By facilitating environmental impact assessments and policymaking, BIOSCAN will aid conservation efforts while also improving the sustainability of the agricultural, forestry, and mining sectors. Further details are available at: https://ibol.org/programs/bioscan/ The Centre for Biodiversity Genomics at the University of Guelph leads BIOSCAN. Working with its leadership team, the Program Director will aid cohesion of the research effort in Canada and internationally. Key activities involve coordinating research and interactions with BIOSCAN's management and operating Committees. Experience in molecular genetics or biodiversity science is essential coupled with a strong background in project management. Specific Responsibilities:

Ensure timely implementation of scheduled research activities, a task that requires understanding of the underlying scientific methods and principles Develop budgets and allocate time and human/fiscal resources for projects Plan, schedule, and monitor program activities to ensure compliance with timelines and milestones Implement and manage changes required to achieve program outcomes Engage and maintain consultation with stakeholders to identify and address emerging challenges Aid financial management by tracking the program budget. Create financial projections and, if required, recommend adjustments to research budgets Manage research grants to ensure compliance with guidelines set by sponsors Hire, train, and supervise staff as required, and support the program's commitment to Equity, Diversity, and Inclusion principles Organize meetings of the Boards and Committees established to ensure BIOSCAN meets its goals

Requirements of the position include:

PhD in life sciences, ideally in molecular genetics combined with a minimum of 5 years related experience or an equivalent combination of education and experience Demonstrated experience in project and budget management Experience in management and operations including leading and managing people Demonstrated leadership and the ability to foster teamwork and collaboration Exceptional organizational capabilities with the ability to prioritize and coordinate multiple projects Strong problem-solving skills Ability to build relationships and collaborate with internal and external stakeholders Excellent verbal and written communication and interpersonal skills Demonstrated commitment to excellence, professionalism, and respect

This appointment is regularly performed on-campus but will be initially fulfilled both remotely (off-campus) and on-campus until the University resumes its regular operations. Classification: Grant/Trust fund position, Band P10 GTP Professional/Managerial

Salary Bands: https://www.uoguelph.ca/hr/system/-files/2020-2023%20P&M%20Salary%20Grid_2.pdf
At the University of Guelph, fostering a culture of inclusion is an institutional imperative: https://www.uoguelph.ca/hr/system/files/2020-2023%20P&M%20Salary%20Grid_2.pdf The University invites and encourages applications from all qualified individuals, including from groups that are traditionally underrepresented in employment, who may contribute to further diversification of our Institution. Posting Date: 2021 11 03 Closing Date: 2021 11 17

Hannah James <hjames@uoguelph.ca>

## UKentucky InsectGenomics

Assistant Professor in Insect Genomics

Position: Assistant Professor of Entomology, Insect Genomics, twelve-month, tenure-eligible appointment in the regular title series with an anticipated distribution of effort of research (70%), instruction (25%) and service (5%).

Description: The Department of Entomology at the University of Kentucky is seeking a genome biologist who uses computational and/or experimental approaches to investigate the structure and function of insect genomes. Specializations can include any area of functional genomics, such as application to disease vectors, insect pathology and immunology, microbial genomics, insect symbioses, and ecological interactions. We are particularly interested in candidates with strong bioinformatics experience who use systems-wide approaches to address their questions. The Department of Entomology has strengths in behavior and neurobiology, integrated pest management, ecology and evolution, and medical entomology. The successful candidate will complement these strengths and join a vibrant, collaborative research, teaching, and service environment. The successful applicant will develop an internationally recognized and extramurally funded research program that incorporates MS and Ph.D. students and undergraduate researchers. The anticipated teaching load will be two courses per year in the interdisciplinary Agricultural and Medical Biotechnology (AMBT) program and advising AMBT students. Distribution of effort is considered each year in the context of the individual faculty member and the department/college. Relevant courses could include molecular genetics, special topics seminars and/or a bioinformatics course for graduate students and upper-level undergraduates. Our new colleague is expected to contribute to institutional service and the research, teaching, and extension missions of the College of Agriculture, Food and Environment. The Department of Entomology and the University of Kentucky are committed to diversity and inclusion, and candidates from underrepresented groups are strongly encouraged to apply.

Qualifications: The appointed applicant will have a Ph.D. in Entomology, Biology, or a related field with experience in insect genomics research, computational methods, securing extramural funding, college level teaching, as well as excellent oral and written communication skills.

Salary and Benefits: Salary commensurate with background and experience; an overview of benefits can be found at http://www.uky.edu/hr/benefits The College of Agriculture, Food and Environment (CAFE) is fulfilling the land-grant promise of educational excellence, civic leadership, transformational research, and shared knowledge serving the common good. We serve the people of the Commonwealth and across the world through education, outreach, service, and research by finding solutions to improve lives today and create a sustainable future. We integrate teaching, research, and extension in our work. We recruit, retain, and graduate students who are competent, responsible, and workforce ready. For more than 130 years, CAFE has provided research results to the community. From traditional labs and research farms to high-tech diagnostic and research centers, we offer science-based, practical solutions that affect the everyday lives of Kentuckians and people around the world. Our Cooperative Extension programs are engaged in Kentucky's 120 counties, identifying and addressing needs not only in agriculture and natural resources, but also 4-H and youth development, family and consumer sciences, as well as community & economic development. We create a welcoming and inclusive environment that allows our faculty, staff, and students to reach their highest potential. We recognize people with diverse backgrounds and experiences are essential to decision making, problem solving, and innovation each and every day.

The University of Kentucky is a university with approximately 23,000 undergraduate and 7,000 graduate students. UK is Kentucky's flagship university and a land grant institution. We have a university commitment to improve the lives of Kentuckians and beyond and that is why environmental stewardship and sustainability are core parts of our institution's legacy. We are recognized as a Tree Campus USA by the Arbor Day Foundation, a Gold level Bicycle Friendly University by The League of American Bicyclists, and are recognized

as a STARS (Sustainability Tracking, Assessment & Rating System) Silver Rating by the Association for the Advancement of Sustainability in Higher Education. The university is geographically near downtown Lexington, which offers the vibrancy of an urban location while being in close proximity to working landscapes and recognized wilderness areas. Lexington is a thriving community of 300,000+ with a strong commitment to quality of life, education, and the arts. Lexington is in the Bluegrass Region,

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## UMassachusetts Lowell DiseaseEvolution

Assistant/Associate Professor - Evolution or ecology of infectious disease/ Infectious Disease Biology

University of Massachusetts Lowell

General Summary of Position: The University of Massachusetts Lowell Department of Biological Sciences invites applications to fill a full-time tenure-track faculty position, at the Assistant or Associate Professor level, to start September 2022.

We seek an individual who studies the biology of pathogens, includingbut not limited to: disease ecology and/or evolution, cell and molecular biology of pathogenesis, interactions between microbes and the host immune system, interactions with vectors, the effects of climate change and urbanization on disease systems, disease spillover, or pathogen population biology. The ideal candidate's research should complement and leverage existing departmental and campus strengths, including expertise in immunology, invertebrate biology, microbial evolutionary ecology, genomics, and bioinformatics. Allied departments at UMass Lowell also have strengths in nanomedicine, biomaterials, public health, robotics and tissue engineering, and advanced imaging technologies. In addition, applicants whose work addresses the impact of climate change will have the opportunity to participate in UMass Lowell's Climate Change Initiative, which draws members from all six Colleges and Schools with a common focus on climate change research and education. The successful candidate will be expected to establish a vigorous, externally funded research program, and contribute to the department's teaching mission. Teaching responsibilities may include the development of undergraduate courses, in addition to upper-level and graduate courses.

The University of Massachusetts Lowell is a research university that has advanced in national rankings more than almost any other university in the country over the past five years, and it offers competitive salary and benefits package. The Department of Biological Sciences is one of the largest academic units on campus with diverse research interests and an exemplary record of extramural funding. The department offers a B.S. in Biology with concentrations in General Biology, Biotechnology, Bioinformatics and Ecology, Evolutionary & Organismal Biology (EEOB), a M.S. in Biological Science, a Ph.D. in Applied Biology and participates in the interdisciplinary Ph.D. in Biomedical, Engineering and Biotechnology.

The University has strong ties to the community of Lowell, a mid-sized city with a diverse population and is located in the heart of the life sciences supercluster of the northeast region of Massachusetts, which is home to more than 100 life science companies. Together with its proximity to the Boston/Cambridge biotechnology and biomedicalhub, there are ample opportunities for scientific interaction, exchange, and collaboration. Lowell is located25 miles northwest of Boston and within two hours of mountains and beaches Information about the Department is available athttps://www.uml.edu/Sciences/biology/ . The University of Massachusetts Lowell (UML) has approximately 18,000undergraduate and graduate students, and is an Equal Opportunity/Affirmative Action, Title IX, H/V, ADA employer with a commitment to faculty diversity.

Minimum Qualifications (Required):

§Earned doctorate and postdoctoralexperience (required at the time of application)

§The ability to work effectively with diverse student and faculty groups

§Demonstrated teaching and mentoring ability at the undergraduate and/or graduate levels

§Potential to establish a sustainable externally funded research program

§Demonstrated publication record in scholarly journals

§Excellent communication and interpersonal skills

Special Instructions to Applicants: Review of applications will begin December 1, 2021 and will continue until the position is filled. However, the position may close once an adequate number of qualified applications

are received.

Please submit a CV, cover letter, statements of research interests and teaching philosophy. Names and email addresses of three references will also be required during the application process.Three letters of reference will be required from those candidates who are selected for an interview.

Apply at: https://careers.pageuppeople.com/822/-lowell/en-us/job/510846/assistantassociate-professor-infectious-disease-biology The University of Massachusetts Lowell is an Equal Opportunity/Affirmative Action, Title IX employer.

All qualified applicants will receive consideration for employment withoutregard to race, sex, color, religion, national origin, ancestry, age over 40, protected veteran status, disability, sexual orientation, gender identity/expression, marital status, or other protected class.

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## UNorthCarolina Wilmington EvolMarineMammals

The Department of Biology and Marine Biology at the University of North Carolina Wilmington is accepting applications for a Marine Mammalogist. This is a tenure track position at the Assistant Professor level. Please see the following link for details: https://jobs.uncw.edu/-postings/22321 Brian S. Arbogast, PhD

Professor of Biology Department of Biology and Marine Biology, and Assistant Director, Wildsumaco Biological Station, Ecuador University of North Carolina Wilmington

601 S. College Rd. Wilmington, NC 28403 Phone:(910) 962 2644

E-mail:arbogastb@uncw.edu Lab Webpage:http://-people.uncw.edu/arbogastb/ Wildsumaco Biological Station

https://www.facebook.com/wildsumaco.bio.station
“Arbogast, Brian S.” <arbogastb@uncw.edu>

## UOregon ProgrammerPopGenetics

Programmer ?¿‘ Population Genomics

The story of evolution is written in our genomes. Our lab group focuses on trying to make sense of this story, understanding genetic variation within and between species through the lens of evolution. We seek qualified applicants for a Programmer to join the collaborative lab group of Drs. Andrew Kern and Peter Ralph in the Institute of Ecology and Evolution at the University of Oregon. We are looking for an experienced software developer who will work with us on a number of ongoing directions within the group including: 1) the development of deep learning methods for population genomic inference, 2) method development and implementation for spatial and ecological population genetics, and 3) the development and implementation of population genetics methods that capitalize on recent, breakthrough representations of whole genome genealogies (i.e. tree sequences). The position has long term funding (10 years) and salary will be commensurate with experience.

The ideal candidate will have obtained a Bachelor degree or higher, 5+ years of experience with python development, experience with a compiled language such as C, and a working familiarity with modern Open Source Software development platforms (e.g., Github) as well as with high performance computing. Training in mathematical methods and/or previous experience with machine learning are positives. The candidate should have the ability to work collaboratively both with other members of the group as well as with external teams, as well as to develop ideas independently. The candidate will be expected to participate and interact with scientists within the group; publish their work in peer-reviewed journals; and to share their code openly.

More information about the Kern-Ralph co-lab can be found here: http://kr-colab.github.io. We work to maintain an inclusive, supportive and equitable group environment, and people of backgrounds or genders historically underrepresented in the field are especially encouraged to apply. The lab is located on the gorgeous University of Oregon campus. Eugene is a wonderful small city with an excellent quality of life that affords abundant outdoor opportunities in the nearby Cascade mountains and Oregon coast.

Review of applications will begin immediately and continue until the position is filled. Interested

candidates should submit applications to https://careers.uoregon.edu/en-us/job/528467/software-developerresearch-scientist If you have questions about the position please feel free to reach out to

Andrew Kern (adkern@uoregon.edu) and/or Peter Ralph (plr@uoregon.edu) directly

Andrew Kern, Ph.D. Evergreen Associate Professor of Biology Institute of Ecology and Evolutionary Biology University of Oregon

adkern@uoregon.edu

## UOslo PlantEvolutionaryGenomics

We have position as an Associate Professor/Professor in Plant Evolutionary Genomics open with a deadline of December 5th. Please find detailed information below as well as on this webpage: https://www.jobbnorge.no/en/available-jobs/job/214153/associate-professor-professor-in-plant-evolutionary-genomics You will have to apply via this webpage as well.

The museum is a great place to work with many newly hired colleagues and hence a young group of enthusiastic researchers from all over the world. Norway and Oslo is also a nice place to live.

Best wishes,

Torsten.

Job description The Natural History Museum is recruiting an Associate Professor/Professor in Plant Evolutionary Genomics. The position is expected to develop our research in plant evolutionary genomics, past and present, with a focus on Nordic biodiversity. The appointment is a fulltime, permanent position with an earliest starting date of 1 July 2022. NHM's strategic plan for 2020-2030 "ForstïÂ¿Â½ naturens mangfold" aims to raise the quality of research and to strengthen the integration of the scientific collections in research and educational activities. A concrete ambition is that the research will be further developed to qualify for a center of excellence (SFF) by 2025. Digital resources derived from museum collections - including in-silico genomic data, scanned images of vouchers, and digitized associated metadata, are opening new venues for collections-based research aiding to address society's need for science-based information to understand and mitigate the effects of climate change on biodiversity. NHM has a collaboration agreement with the Department of Biological Sciences about teaching and supervision of students at the bachelor and master's level, and with the Faculty of Mathematics and Natural Sciences for supervision of doctoral candidates. NHM also hosts an international research school in biosystematics (ForBio). The successful candidate is expected to participate in teaching at all levels and be a capable and enthusiastic supervisor of master's and PhD students. Up to 50% of the working time will be devoted to curating collections (main activity), teaching and supervision of students, outreach and administrative tasks at NHM. Lectures and tuition are given in Norwegian and English. Foreign language speakers are expected to be able to teach in a Scandinavian language within two years after being hired.

Qualification requirements NHM seeks to employ a plant evolutionary biologist with a strong independent research program that can take advantage of our extensive collections of Nordic plant biodiversity, including digitized collections, DNA bank and genomic resources. NHM seeks a candidate who is at the international research front in the study of Nordic plant biodiversity, including the role of glacial refugia in postglacial dispersal and colonization of Scandinavia, the contribution of different processes to shaping contemporary biodiversity, the drivers of change to current biodiversity and management of future scenarios in a changing climate. The candidate must have a strong interest in generating and using museum collections in their research. There is a special need to strengthen the research activity within Nordic vascular plants, and it is the intention that the candidate will be assigned the scientific curatorial responsibility for this collection. The person hired is expected to initiate collaborative projects in their special field with colleagues both inside and outside the museum and to contribute actively to the process of developing a Center of Excellence (Norwegian Centres of Excellence scheme (forskningsradet.no).

Required qualifications The successful applicant must have: - A PhD or an equivalent doctoral degree in biology . A research profile with relevant experience in plant evolutionary genomics . Knowledge of Nordic vascular plant diversity, including in research and teaching . A relevant and strong publication record, and with a clear vision for developing an independent museum-based research program. - An upward academic trajectory and strong potential to execute competitive research projects at a high international level. - Ability to create an attractive research environment and perform research that inspires synergistic interactions with current research at the museum. - Focus on using plant genomics to study fundamental questions in biology, rather than applying or developing methods for monitoring purposes. - Expe-

rience with bioinformatic analyses of high-throughput sequence data, statistical analyses and visualization of such results . A track record of acquiring extramural research funding . Excellent English language skills (written and spoken)

Desirable qualifications The successful applicant should have:

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## UVirginia EvolutionaryGenomics

The Biology Department at the University of Virginia is seeking a Genomics Specialist for its Sequencing Facility. This is a full-time staff position with generous benefits. Charlottesville Virginia is consistently ranked among the most attractive places to live in the US, offering a vibrant culture of food, music, history, as well as natural beauty and related outdoor activities.

The successful candidate will be responsible for all scientific operations and management of our sequencing facility. The central focus of our facility is student/faculty training with an aim to broaden access of research labs to the latest sequencing technologies. A more detailed position description can be seen in the application portal, but duties and responsibilities include but are not limited to: - Training facility users in genomic technologies. - Preparing and evaluating DNA/cDNA sequencing libraries for internal and external sequencing runs. - Performing next-gen and Sanger sequencing; conducting quality and control for larger experiments run at external facilities. - Oversight of the facility's various operating needs including purchase/maintenance of supplies/equipment, budget oversight, and the marketing of facility services to prospective clients.

The successful candidate will have a Bachelor's degree with either an advanced degree or strong laboratory experience with molecular biology/genetics. If you are interested, please see the full position description at the application portal below.

For questions about this position or the application process please contact Rich Haverstrom, Faculty Search Advisor, atrkh6j@virginia.edu, or the search committee chair, Douglas Taylor, Commonwealth Professor, at dougtaylor@virginia.edu.

APPLICATION PROCESS: Process for External Applicants: Please apply through Workday (https://uva.wd1.myworkdayjobs.com/UVAJobs), and search for "BIOL - Genomics Research Lab Specialist Intermediate". Complete an application online and attach a cover letter, CV/resume, and contact information for three professional references (name, email address, telephone number, and address).

Process for Internal UVA Applicants: Please apply through your Workday Home page, search "Find Jobs", and search for "BIOL - Genomics Research Lab Specialist Intermediate". Complete an application online and attach a cover letter, CV/resume, and contact information for three professional references (name, email address, telephone number, and address).

The University of Virginia, including the UVA Health System which represents the UVA Medical Center, Schools of Medicine and Nursing, UVA Physician's Group and the Claude Moore Health Sciences Library, is fundamentally committed to the diversity of our faculty and staff. We believe diversity is excellence expressing itself through every person's perspectives and lived experiences. We are equal opportunity and affirmative action employers. All qualified applicants will receive consideration for employment without regard to age, color, disability, gender identity or expression, marital status, national or ethnic origin, political affiliation, race, religion, sex (including pregnancy), sexual orientation, veteran status, and family medical or genetic information.

"Wu, Martin (mw4yv)" <mw4yv@virginia.edu>

## Washington MachineLearningEvolution

Hello EvolDir Members:

Hiring Now: NSF-funded Consultant or Postdoctoral Fellow (1 year, with potential for extension), Washington, D.C., USA; remote work space possible

Project title: NSF Convergence Accelerator Track E: Innovative seafood traceability network for sustainable use, improved market access, and enhanced blue economy

Project Overview: This proposal will build a cross-cutting traceability network to accelerate the path to-

wards accurate and inclusive monitoring and management of marine bioresources, whose sustainability is vital to feed the global population. Leveraging wide-ranging expertise in fisheries science, marine biology, environmental anthropology, computer science, trade policy, and the fisheries industry, we will develop a powerful tool to achieve long-lasting & transferable solutions. Addressing the global challenge of feeding the human population will require the ocean as a solution.

This NSF Convergence Accelerator project will:

1.Develop a prototype traceability tool that allows affordable identification of species and area of capture for wild octopus fisheries within the United States and abroad using our proposed machine learning (ML) model "SeaTraceBlueNet" trained on legacy data of environmental metadata, species occurrence and images;

2.Develop a community-based citizen-science network (fishers, researchers, industry partners, students, etc.) to gather new data (images, metadata and environmental DNA (eDNA)), train on and test the portable eDNA kits and SeaTraceBlueNet dashboard prototype to build the collaborative capacity to establish a standardized traceability system; and,

3.Set a system in place to connect traceability, sustainability and legality to support the development of a blue economy around the octopus value chain, incorporating the best practices and existing standards from stakeholders.

Background and skills sought:

Expertise (5+ years of combined work and/or academic experience) preferably in one of the following fields: Bioinformatics, Machine Learning, Computer Sciences, Biological Sciences, Molecular Biology Note: PhD is not required, as long as applicant shows demonstrated abilities in the following.

Experience required: Software: Agile software i.e., Jira, GitHub, Anaconda, pyCharm, Jupyter notebooks, OpenCV Must have languages: Python, SQL, bash scripting, linux command-line Optional: C++, R, Spark, Hive

Programming environments and infrastructure: Cloud, HPC, Linux, Windows Familiar with Machine learning platform and libraries such as, TensorFlow, PyTorch, Caffe, Keras, Scikit-learn, scipy, etc. Implementing computer vision models such as ResNet, Deep learning models using Recurrent Neural Networks (CNNs, LSTMs, DNNs), using Support Vector Machines (SVMs) models, probabilistic and un/regression models, data processing and handling activities including data wrangling, computer vision.

Bonus skills: Using BERT NLP models, computer software like OpenVino, targeting GPUs, familiarity with GCP tools and applications, such as BigTable, cloudSQL, DataFlow, CloudML, DataProc, etc., dashboard development and implementation, Compiling and configuring HPC environments, developing applications using MPI, OpenMPI, pyMIC, using job schedulers such as PBS, Scrum; Bioinformatics tools such as BLAST, Qiime2

Job Physical Location: Washington, D.C. USA; remote work station is an option.

Compensation: $65,000 (annual) with benefits, and some travel

Although, US citizenship is not required, proper work status in the USA is required. Unfortunately, we cannot sponsor a visa at this time.

Expected start date: November/December 2021 (up to 12 months depending on start date)

Application Deadline: Applications will be reviewed and interviews will take place on a rolling basis until the position is filled. Application submission process: Please send the following documents via email to Demian A. Willette, Loyola Marymount University (demian.willette @ lmu.edu).

1.Curriculum Vitae: Including all relevant professional and academic experience; contracts, collaborations, ongoing projects, grants funded, list of publications (URLs provided), presentations, workshops, classes; Machine Learning and bioinformatics skills and languages; Gitbub/bitbucket; any experience with processing molecular sequence data (genomics and/or metabarcoding)

2.Reference contacts: Names, affiliations and contact information (email, phone) for up to three professional references that we will contact in the event that your application leads to an interview.

3.Transcripts: Transcript showing date of completion of your most relevant degree(s) and grades.

Please send all inquiries to: Demian A. Willette, Loyola Marymount University (demian.willette @ lmu.edu)

Cheryl Ames <sheriru.ames@gmail.com>

## YorkU PollinatorEvolution ClosesNov19

Reminder - closing date for this position is November 19th, 2021

Position Rank: Full Time Professorial Stream - Assistant Professor Discipline/Field: Pollination Ecology Home Faculty: Science Home Department/Area/Division: Biology Affiliation/Union: YUFA Position Start Date: July 1, 2022

Pollination Ecology, Department of Biology, Faculty of Science, York University

The Department of Biology, Faculty of Science, York University invites highly qualified candidates to apply for a professorial stream tenure-track appointment in Pollination Ecology at the Assistant Professor level, to commence July 1, 2022. Salary will be commensurate with qualifications and experience. All York University positions are subject to budgetary approval.

A PhD in Biology and relevant postdoctoral experience is required, with a promise of excellence in research and in teaching. Applicants should have a clearly articulated program of research and specialize in pollination systems where bees are the principal pollinators. Candidates should have research expertise in pollination ecology that complements and is synergistic with those carried out by York University's Centre for Bee, Ecology, Evolution and Conservation researchers (BEEc, https://www.yorku.ca/bees/ ). Research by BEEc currently spans bee taxonomy and systematics, behavioural ecology, evolution, genetics and genomics and conservation.

The successful candidate will be expected to engage in outstanding, innovative, and externally funded research at the highest level. Candidates must provide evidence of research excellence or promise of research excellence of a recognized international caliber as demonstrated in their research statement; a record of publications (or forthcoming publications) with significant journals in the field; presentations at major conferences; awards and accolades, and strong letters of reference.

The position will involve graduate teaching and supervision, as well as undergraduate teaching, and be eligible for prompt appointment to the Faculty of Graduate Studies. Candidates must show evidence of or the potential for superior teaching and mentoring of undergraduate and graduate students, as demonstrated though a teaching statement, teaching accomplishments and pedagogical innovations including in high priority areas such as experiential education and technology enhanced learning; teaching evaluations; and strong letters of reference.

York is a leading international teaching and research university, and a driving force for positive change. Empowered by a welcoming and diverse community with a uniquely global perspective, we are preparing our students for their long-term careers and personal success. Together, we can make things right for our communities, our planet and our future.

York University has a policy on Accommodation in Employment for Persons with Disabilities and is committed to working towards a barrier-free workplace and to expanding the accessibility of the workplace to persons with disabilities. Candidates who require accommodation during the selection process are invited to contact Professor Amro Zayed, Chair of the Search Committee at biojobs@yorku.ca .

York University is an Affirmative Action (AA) employer and strongly values diversity, including gender and sexual diversity, within its community. The AA Program, which applies to women, members of visible minorities (racialized groups), Aboriginal (Indigenous) people and persons with disabilities, can be found at http://acadjobs.info.yorku.ca/ or by calling the AA line at 416-736-5713. Applicants wishing to self-identify as part of York University's Affirmative Action program can do so by downloading, completing and submitting the form found at: http://acadjobs.info.yorku.ca/affirmative-action/self-identification-form/ .All qualified candidates are encouraged to apply; however, Canadian citizens, permanent residents and Indigenous peoples in Canada will be given priority. No application will be considered without a completed mandatory Work Status Declaration form which can be found at http://acadjobs.info.yorku.ca/affirmative-action/work-authorization-form . The deadline for receipt of completed applications is November 19, 2021. A letter of application with an up-to-date curriculum vitae, a statement of research and teaching interests a statement of how your research complements and synergizes with BEEc faculty, three reprints, and names and contact information for three referees should be sent to: Professor Amro Zayed, Chair of the Search Committee, Faculty of Science, York University, 4700 Keele Street, Toronto, Ontario M3J 1P3, biojobs@yorku.ca.

Posting End Date: November 19, 2021

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

# Other



## Cincinnati NSF REU BehavioralEvolution

Dear Colleagues,

This is to announce a new, paid summer research opportunity for undergraduate students, at the University of Cincinnati's Department of Biological Sciences - the National Science Foundation-sponsored Research Experiences for Undergraduates (REU) Site in Sensory Ecology. Our program is focused on research at the intersection of neurobiology, behavior, ecology and evolution, and is directed at understanding how animals use their senses to respond to their environment at functional and evolutionary levels. Sophomore and junior Biology major students will be chosen to join active lab groups for the summer and conduct cutting edge research over a broad spectrum of topics in sensory ecology, including:

* Genomics and development of sensory systems * Neural mechanisms of sensory system function * Sensory perception and behavioral influences of the physical environment * Neuroethology * Animal communication * Behavioral ecology of animal movement and dispersal

An educational program will develop student research and professional skills and prepare them for graduate school or careers, and for communicating science to the public.

* ~10 weeks in summer (May 31 - Aug 5, 2022) * Students will receive a summer stipend plus dorm and meal expenses * Students will work in labs, interact w/ faculty mentors, post-docs and grad students * Weekly group seminars and meetings for students (e.g., career development, responsible research conduct, science communication training) * Social events for students (e.g., trips to Cincinnati Zoo, Reds baseball) * Concluding student research "mini-symposium" presentation session

Student applicants will be selected based on multiple criteria. Applications for the REU program will be screened by a committee to select individuals whose interests match with faculty in the program. Emphasis will be placed on faculty recommendations and student statements, along with academic performance and other indicators of future research success. Participants must be US Citizens, US Nationals or permanent residents.

The application review will begin February 1, 2022 and will close February 18. Students can apply online at: https://www.uc-bio-reu.com/ We hope you will encourage your students to visit our website and consider applying.

Thank you.

Stephanie Rollmann, PhD (stephanie.rollmann@uc.edu) and John Layne, PhD (john.layne@uc.edu)

laynejn@UCMAIL.UC.EDU

## Club Eco-Evo Latinoamerica

[ENG] Eco-Evo Latinoamerica Club is a space created by and for the Latin American scientific community interested in Ecology and Evolution. Our space allows scientists from different nations to come together to share ideas in Spanish.

Once a month, we have lectures and talks where relevant topics are discussed. Also, we establish communication between members and share interesting announcements (job positions, scholarships, courses). If you are interested to join our community or find collaborators in the regions, you can sign up to our list or follow us on our social media. We hope that our community will grow and strengthen collaborations between members.

[ESP] (sin acentos para no confundir) El Club Eco-Evo LatinoamïÂ¿Â½rica es un espacio creado por y para la comunidad cientifica latinoamericana interesada en Ecologia y Evolucion. Nuestro espacio permite juntar cientificos y cientificas provenientes de distintas naciones para compartir ideas en espanol.

Una vez al mes, tenemos charlas y conversatorios donde se discuten temas relevantes. Ademas, establecemos comunicacion entre miembros y compartimos anuncios interesantes (posiciones de trabajo, becas, cursos). Si te interesa puedes registrarte en nuestra lista o seguirnos en nuestras redes sociales. Esperamos que nuestra comunidad crezca y fortalezca colaboraciones entre miembros.

- Lista: https://forms.gle/gyizd34RSDDYUoQC8 - Web: https://ecoevolat.github.io/ - Slack: clubecoevolat-w8z9144.slack.com - Twitter: @Eco-EvoLatam - YouTube: www.youtube.com/-channel/UC5AFIQcrnZz6MGGTtBXkn3A - List: https://forms.gle/gyizd34RSDDYUoQC8 - Web: https://ecoevolat.github.io/ - Slack: clubecoevolat-w8z9144.slack.com - Twitter: @Eco-EvoLatam - YouTube: www.youtube.com/channel/-UC5AFIQcrnZz6MGGTtBXkn3A best,

Club Eco-Evo Latinoamerica <clubecoevolatinoamerica@gmail.com>

## ESEB CallHewittMobilityAward DeadlineJan21

**Godfrey Hewitt Mobility Award 2022 - 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 annually offers mobility grants for young scientists in his name.

Closing date: FRIDAY, 21 JANUARY 2022.

*Eligibility:*

The award is open to PhD students or postdoctoral scientists who are, at the closing date for applications, 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. Applicants who have previously received a Godfrey Hewitt mobility award are not eligible. 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.

Due to the COVID-19 situation, and in order to promote responsible and safe travel without compromising the quality of research, grantees of the 2022 ESEB Godfrey Hewitt mobility awards will be allowed to travel within 24 months from the date of announcement of the winners.

*Application procedure:*

Your application should be sent as a single PDF file to Ute Moniatte at the ESEB office, 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.

Please renew your ESEB membership or join the society preferably only in January, as ESEB is changing its membership system at the end of 2021.

Applications will be considered by a committee chaired by Constantino Macias Garcia. The aim will be to announce decisions before the end of March 2022. 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.

Best wishes, Ute Moniatte, ESEB Office Manager.

European Society for Evolutionary Biology Homepage: eseb.org Email: office@eseb.org

ESEB <office@eseb.org>

## ESEB Call UnderRepresentedAchievementAward

***ESEB UNDER-REPRESENTED ECR ACHIEVEMENT AWARD***

Two annual awards of 2000 euro will highlight the achievements of under-represented early-career researchers (ECRs) who have faced difficult circumstances while conducting their work. The difficult circumstances are primarily, but not solely, disabilities, single parenting, and caring responsibilities that have created unequal opportunities.

—The Gordon and Betty Moore Foundation (https://-www.moore.org/home)is supporting this initiative.

CALL FOR APPLICATIONS

***Next deadline : 31/01/2022***

ELIGIBILITY

The award is open to PhD students, postdoctoral scientists or non-tenure-track research fellows who do not hold a permanent academic position and have achieved their research while facing difficult ci

- Applications may be submitted by the person benefiting from the grant, or by a colleague/supervisor when a letter is included from the nominee approving their nomination. - The person submitting the application must be an ESEB member. To become a member of ESEB, please follow this link (https://ordering.onlinelibrary.wiley.com/-Lite/Membership.aspx?amp;doi=10.1111/-%28ISSN%291420-9101%29&ref=1420-9101) or visit our membership page(https://eseb.org/society/-membership/) first. - Applicants who have previously received this award are not eligible. - The award stipend (2000 euro ) will be spent at the discretion of the nominee. Nominees will be required to write a short summary of their achievement to be highlighted on the ESEB Equal Opportunities website and ESEB newsletter.

APPLICATION PROCEDURE* *

Applications 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

- A cover letter with the nominee's name, current status and institution, PhD start date, duration and reason for any career breaks, nominee's or nominator's ESEB membership number, and a signed statement on what the nominee has achieved and why you considered the nominee achieved it under difficult circumstances. The difficult circumstances are primarily, but not solely, disabilities, single parenting, and caring responsibilities. The letter should not exceed 2 pages. - A short CV of the nominee (1-2 pages) - Proof of the nominee's achievement: this can be for instance a PhD diploma, a publication, or an outreach initiative. - A letter of support from the nominee's host institution or a colleague.

Applications will be evaluated by the Equal Opportunity Committee.

European Society for Evolutionary Biology Email: office@eseb.org Homepage: www.eseb.org ESEB <office@eseb.org>

## Evry France MasterIntership StatQuantGenomics

Title: Master internship in statistical modelling for quantitative genomics

Duration: 6 mois

Location: Evry, France

Internship global context: The global population is estimated to reach approximately nine billion people by 2050, thus the demand for animal protein is expected to increase by 76% [1]. Such an increase questions the sustainability of our conventional food and feed production systems. At the same time, we also need to reduce the impact of agriculture on our environment [2]. Today, insect production is considered a sustainable alternative for food and feed production for several reasons. First, the suitable nutritional composition of edible insects [3] and second, the relatively low environmental impact its production involves compared to other conventional livestock production systems. However, non-conventional animal breeding raises the problem of adapted statistical and computational methods for genomic breeding value prediction due to the nature of the pooled genomic data and phenotypes estimates from different individuals while classical approaches use distinct genomic data and phenotype per each individual.

Internship tasks: 1. Bibliography on state-of-the-art statistical methods used in Genome Estimated Index Value (GEBV) such as genomic best linear unbiased predictor (GBLUP) [4], ridge regression BLUP (rrBLUP) [5], Bayesian LASSO (BL) [6], and reproducing kernel Hilbert space (RKHS) regression [7]. 2. Testing of statistical approaches for GEBV with allele frequencies inferred from pooled sequencing data (Pool-seq). 3. Implementation of the algorithms in R 4. Performance evaluation of the proposed algorithms on simulated and real data sets.

Hosting laboratory: The six months internship will takes place in the "Statistiques et Génome" team of the Laboratory of Mathematics and Modelisation of Evry (LaMME) in Evry, France http://www.math-evry.cnrs.fr/sg/welcome . Supervision: The internship will be supervised by Pr. Christophe Ambroise, Professor of statistics at Paris-Saclay University (https://cambroise.github.io/) and Dr. Amin Madoui, CEA researcher in genomics in Fontenay-aux-Roses (https://madoui.github.io/)

Student profile: Master student in statistics with programming knowledge in R

Financial support: 550 euros per month

Possibility to continue in a funded PhD for three years

[1] Alexandratos N, Bruinsma J: World agriculture towards 2030/2050: the 2012 revision. 2012 [2] Steinfeld H, Gerber P, Wassenaar T, et al.: Livestock's long shadow. 2006. [3] Nowak V, Persijn D, Rittenschober D, et al.: Review of food composition data for edible insects. Food Chem. 2016; 193: 39-46. [4]Goddard ME, Hayes BJ, Meuwissen THE. Using the genomic relationship matrix to predict the accuracy of genomic selection. J Anim Breed Genet. 2011;128(6):409-421. doi: 10.1111/j.1439-0388.2011.00964.x [5]Meuwissen THE, Hayes BJ, Goddard ME. Prediction of total genetic value using genome-wide dense marker maps. Genetics. 2001;157(4):1819-1829. [6]Legarra A, Robert-Granie C, Croiseau P, Guillaume F, Fritz S. Improved Lasso for genomic selection. Genet Res. 2011;93(1):77-87. doi: 10.1017/S0016672310000534.

Amin Madoui <amine.madoui@gmail.com>

## FishAndWildlife FilmFestival

Submissions are currently being accepted for the 2022 University of Idaho Fish and Wildlife Film Fest. We invite novice and professional filmmakers, K-12 students, and university students to submit short films (1-10 minutes) or feature length films (10-15 min). The Fish & Wildlife Film Festival at the University of Idaho is dedicated to enhancing knowledge and stewardship of wild nature, including fish and wildlife, the wild landscapes they depend on, and the communities that they sustain. Read more about the festival here < https://www.uidaho.edu/-cnr/departments/fish-and-wildlife-sciences/fwff >. Submission deadline is December 15 at this site < https://urldefense.com/v3/__https:/filmfreeway.com/-UIdahoFishWildlifeFilmFestival__;!!JYXjzlvb!2_vU_YCRcMsc7kyE_W0yzD40yYm3zAbdB6c_OT_nMNmILj3NwDkUiVChld1-$ >. The festival will be held in person and virtually in Spring 2022. Questions contact: lwaits@uidaho.edu

Lisette LISETTE WAITS Distinguished Professor Department Head Fish and Wildlife Sciences College of Natural Resources [University of Idaho] President National Association of University Fisheries and Wildlife

Programs [A picture containing shirt Description automatically generated] lwaits@uidaho.edu 208-885-7823 875 Perimeter Drive MS1136 | Moscow ID 83844-1136

www.uidaho.edu/cnr/faculty/waits "Waits, Lisette (lwaits@uidaho.edu)" <lwaits@uidaho.edu>

## HarvardU PlantEvolutionAwards

Research Funding opportunities at the Arnold Arboretum of Harvard University The Arnold Arboretum of Harvard University promotes and supports research consistent with its mission to discover and disseminate knowledge of the plant kingdom. To foster both independent and collaborative work, the Arboretum offers fellowships and awards to students, post-doctoral researchers, and professionals of the biological sciences including evolution, ecology, development, and genetics. Applicants are encouraged to define and develop paths of inquiry using the Arboretum's resources, including its world-renowned living collection, herbarium, plant records, library and archives, greenhouse and laboratories, and the expertise of its staff. There is currently one fellowship, eight awards, and an internship program. Applicants must submit a research proposal online by Feb 1. Please see the website for the specific requirements of each award. http://arboretum.harvard.edu/research/-programs-and-opportunities/ Available opportunities: DaRin Butz Research Internship Program of the Arnold Arboretum of Harvard University Ashton Award for Student Research Cunin / Sigal Research Award Deland Award for Student Research Shiu-Ying Hu Student/Postdoctoral Exchange Award Putnam Fellowship in Plant Science Arnold Arboretum Genomics Initiative and Sequencing Award Jewett Prize Sargent Award for Visiting Scholars Sinnott Award

Application Deadline: Feb 1 annually

– Faye Rosin, PhD Director of Research Facilitation Arnold Arboretum of Harvard University 1300 Centre St Roslindale, MA 02131

phone: (617) 384-5095 fax: (617) 384-6596

frosin@oeb.harvard.edu http://arboretum.harvard.edu/ "Rosin, Faye M" <frosin@oeb.harvard.edu>

## HongKong 2 BiodiversityBioinformaticsIntern

INTERNSHIP OFFER: Biodiversity screening-MarineGEO-Hong Kong: Recording the pulse of the ocean

Description and scientific objectives of the proposal:

Marine Global Earth Observatory (MarineGEO) is a global network of partners focused on understanding how coastal marine ecosystems function, and how to help conserve biodiversity. We bring together simple sampling technology (ARMS) and next-generation genetic sequencing to fill the large gaps that still exist when estimating marine biodiversity.

Autonomous Reef Monitoring Structures (ARMS) is a multi-layered settlement plate that mimic complex marine substrates. It is designed as a passive and non-invasive collector of marine understudied fauna, from algae, corals, crabs, snails and worms, all without causing damage to the environment. While ARMS has been deployed worldwide to explore the cryptic fauna, bacterial community, which are important component of reefs ecosystems remain poorly studied.

ARMS are deployed for a period of 6 months to 1 year in Hong Kong waters. Once retrieved, ARMS are disassembled and photographed. Large specimens >2mm that reside in the ARMS are collected and sorted into taxonomic groups. Tissues of the specimens will be extracted and sequenced for further identification.

The small motile fraction (106mm to 2 mm) is collected by filtration. After collecting all mobile organisms, the remaining sessile organisms on the AMRS are scraped off plates. The DNA of the small motile fraction and sessile fraction is extracted and amplified for metabarcoding analysis.

The candidate will be responsible of DNA extraction and amplification for barcoding analysis and help on the field if necessary. The project proposed for this research internship aims to build an extensive database of marine fauna in Hong Kong by the sample collecting process stated above. With the data from different sites organized, we will analyze the impact of human activities on biodiversity and community composition. Numerous samples will be collected from the ARMS, therefore the candidate will need to keep a good record of sample information, sequences and photos.

Your qualifications

Candidates should have experience and interest in DNA-sequencing and ecology, and the skills to read an interpret scientific literature. Experience of data organizing using R and excel would be appreciated. The successful candidate will have experience in molecular biology laboratory work. A high level of written and spoken English proficiency is required.

Scientific and technical environment:

The successful candidate will perform the sequencing and data organizing processes mentioned above. Dr. Shelby McIlroy and Dr. Guibert Isis will be available to guide the student through this process, but a level of independent working is expected. The intern will participate to all the MarineGEO field work happening during his stay.

Some initial and suggested reading about the topic:

Chen et al. 2020 A pollution gradient contributes to the taxonomic, functional, and resistome diversity of microbial communities in marine sediments. Microbiome

David et al. 2019 Lessons from photo analyses of Autonomous Reef Monitoring Structures as tools to detect (bio-)geographical, spatial, and environmental effects. Marine Pollution Bulletin

Ng et al. 2017 Hong Kong's rich marine biodiversity: the unseen wealth of South China's megalopolis. Biodiversity and conservation

Permean et al. 2018 Cross-shelf investigation of coral reef cryptic benthic organisms reveals diversity patterns of the hidden majority. Scientific Report

Perman et al 2019. Disentangling the complex microbial community of coral reefs using standardized Autonomous Reef Monitoring Structures (ARMS). Molecular Ecology

Ransom et al. 2017 The importance of standardization for biodiversity comparisons: A case study using autonomous reef monitoring structures (ARMS) and metabarcoding to measure cryptic diversity on Mo'orea coral reefs, French Polynesia. Plos one

Application:

Contact: iguibert@hku.hk and smcilroy@hku.hk Review of applications will begin immediately. Your application should include:

1/Detailed curriculum vitae (including your research experience)

2/Academic transcript and rank (M1 & L3)

3/Cover letter

Internship length: 6 months ' dates flexibles

Internship location: In person in Hong Kong

Name of the researcher(s) responsible for the proposal and affiliation:

Dr. Shelby McIlroy, Dr. Guibert Isis and Dr. David M. Baker

The Baker Lab

Swire Institute of Marine Science

School of Biological Sciences

Kadoorie Biological Sciences Building

The University of Hong Kong

Pokfulam Road, Hong Kong, PRC

https://www.thelifeisotopic.com/ —

INTERNSHIP OFFER: Bioinformatic adventure - MarineGEO-Hong Kong: Taking the pulse of the ocean

Description and scientific objectives of the proposal:

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## PurdueU GradSchoolVirtualQandA

Are you interested in studying natural resources, ecology, evolution, genetics, management, and/or conservation biology in Graduate School? Have questions about choosing a school, an advisor(s), or a degree (e.g., MS vs PhD)? Want to live-chat with prospective faculty advisors about these and other issues in a very informal Q&A? If so, and if you want to learn more about Forestry & Natural Resources at Purdue University (Indiana, USA), please join us for an upcoming Zoom meeting at 3pm EST 10 Nov (Wednesday) with a small group of diverse faculty and current FNR grad students. To find out more details, please register here: https://bit.ly/MeetFNRGradProgram Prof. J. Andrew DeWoody Depts. of Forestry & Natural Resources and Biological Sciences Purdue University West Lafayette IN USA https://web.ics.purdue.edu/~dewoody/DeWoody/-wordpress/ 765 496 6109

"DeWoody, James Andrew" <dewoody@purdue.edu>

## SMBE SatelliteMeetings CallProposals

SMBE SATELLITE, INTERDISCIPLINARY AND REGIONAL MEETINGS - Call for Proposals

Each year, SMBE provides funds in aid for SMBE SATELLITE, INTERDISCIPLINARY AND REGIONAL MEETINGS.These meetings are organized and held independent of the SMBE annual meeting.

SMBE is now calling for proposals for meetings and actions to be held between Jan 2022 and Dec 31st 2022. Funds will be awarded on a competitive basis to members of the molecular evolution research community to run workshops/meetings on an important, focused, and timely topic of their choice.The number of awards will depend on the quality of proposals and total cost. However, given the paucity of meetings for some time, we may fund more proposals this year.

*** The deadline for submission of proposals has been extended to 17th November 2021. ***

SMBE SATELLITE MEETINGS

These are workshops or small, topically focused meetings with fewer than 100 participants that are organized and held independent of the SMBE annual meeting. In the past five years, SMBE has supported multiple satellite meetings on diverse topics, a sample of our most recent Satellite meetings include:

- "Mitochondrial Genomics and Evolution" 2017

- "Evolution of microbes in natural and experimental populations - synthesis and synergies" 2017

- "Molecular evolution and medicine" 2017

- "Evolution of genome architecture" 2017

- "Molecular evolution and the cell" 2018

- "Genome Evolution in Pathogen Transmission and Disease" 2018

- "Modern Methods for the study of ancient DNA" 2018

- "Molecular Biology and Evolution of Cancer" 2019

- "Towards an integrated concept of adaptation: uniting molecular population genetics and quantitative genetics" 2019

Satellite meetings awarded and postponed until further notice due to COVID crisis:

- "Evolution of Reproduction", Portugal.

- "Evolution of Meiosis", USA.

- "Mechanisms of Cellular Evolution", USA.

Please consult our archive for further information on previous satellite, regional and interdisciplinary meetings: https://www.smbe.org/smbe/MEETINGS/-MeetingsArchive.aspx SMBE INTERDISCIPLINARY AND REGIONAL MEETINGS.

SMBE will promote interdisciplinary research and extend its actions worldwide by sponsoring (1) joint meetings with meetings of other societies; symposia or plenary lectures on molecular biology and evolution at meetings whose primary focus is not molecular evolution; (2) regional meetings outside the US, Europe, and Japan; (3) small regional meetings in the US, Europe, or Japan targeted towards PhD students and postdocs with the purpose of helping them develop their presentation skills and facilitate networking. This year, given the various international COVID travel restrictions, we are particularly interested in receiving applications for regional meetings on any topic that falls within the research scope represented by our society.

Most recent SMBE Regional and Interdisciplinary meetings were:

- "Israeli Society of Evolutionary Biology inaugural meeting", Israel, December 2019.

- "Evolutionary genomics at the human-environment interface", Malawi, September 2019 (regional) https://-smbe-malawi.org/ - "Population Genomics of Mobile DNA", USA, 2019 (interdisciplinary)

- "Regional workshop on Computational Biology", Mexico, 2019

- "Satellite workshop on Genome Evolution in Pathogen Transmission and Disease", Japan, 2018

Guidelines for satellite, interdisciplinary and regional meetings

- SMBE will provide financial support for up to 80% of the cost of each satellite meeting, up to a maximum of $40,000 USD per meeting (most meetings are funded at $20,000-$30,000 each). SMBE will cover the cost of plenary lectures, up to a maximum of $3,000 USD per lecture. A model of no more than 3 plenary lectures per satellite meeting is expected. A proposal containing more than 3 plenary lectures per meeting would require specific justification.

- SMBE will provide financial support for up to 100% of the cost for the regional and interdisciplinary meetings, up to a maximum of $25,000 USD per meeting outside N. America, Europe and Japan and up to $10,000 USD

for meetings in North America, Europe, or Japan. In addition, SMBE will cover the cost of plenary lectures, up to a maximum of $3,000 USD per lecture and a maximum of 2 plenary lectures per meeting.

- A detailed projected budget, including the expected number of participants, travel/food/lodging costs, and registration fees must be submitted with the application. Please note that SMBE funds cannot be used for indirect costs or overhead costs.

- At least one of the organizers must be a member of SMBE. Current SMBE Council members, or members who have rotated-off Council in the last calendar year, are not eligible to serve as meeting organizers or co-organizers.

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## SouthAfrica Volunteer SmallMammalEvol

Volunteers needed January-April 2022

Minimum stay 2 months

Evolution and Socio-Ecology of Small Mammals in the Succulent Karoo of South Africa

(NOTE: This is an unpaid volunteer position)

Opportunity: This is a great opportunity for anybody who wants to get more experience in field work related to animal behavior, evolution, eco-physiology, and ecology before starting an MSc or PhD project.

Project: We study the evolutionary and ecological reasons as well as physiological mechanisms of group living, solitary living, and social flexibility in bush Karoo rats and the striped mouse. The focus will be on costs and benefits of solitary living in bush Karoo rats, determining its social organization and social structure. As this species is diurnal and the habitat is open, direct behavioral observations in the field are possible.

What kind of people are needed? Applicants must have an interest in working in the field and with animals. Hard working conditions will await applicants, as the study species gets up with sunrise (between 5:30 and 6 AM), and stops its activity with dusk (7 PM). Work during nights might also be necessary. Work in the field will be done for 5 days a week. Applicants must be able to manage extreme temperatures (below 0 at night in winter, sometimes over 40?C during summer days). Applicants must both be prepared to live for long periods in the loneliness of the field and to be part of a small social group. There is no internet, no telephone, and no cell-phone reception at the research station.

Work of volunteer field assistants: Trapping, marking and radio-tracking of small mammals; direct behavioral observations in the field. Volunteers are expected to help with maintenance of the research station (water pump, solar power, etc.).

Confirmation letter: Students get a letter of confirmation about their work and can prepare a report of their own small project to get credit points from their university for their bachelor or masters studies.

Costs: Students have to arrange their transport to the field site themselves. Per month, an amount of Rand 1900 (around 100 Euro) must be paid for accommodation at the research station. Students must buy their own food in Springbok. Including extras (going out for dinner; shopping), you should expect costs of about 500 Euros or 600 US$ per month. Students can get an invitation letter to apply for a travel grant at their home university / home country.

Place: The field site is in the Goegap Nature Reserve near Springbok in the North-West of South Africa close to Namibia. The vegetation consists of Succulent Karoo, which has been recognized as one of 25 hotspots of biodiversity. It is a desert to semi-desert with rain mainly in winter (June to September).

Corona situation: Only vaccinated persons are allowed to stay at the research station. No visitors are allowed. Students are not allowed to go on leave during their stay. We have Corona measures at the station that vary with the local situation. Travel to and entry into South Africa is allowed when you have a negative Corona test.

When and how long: We are looking for volunteers for the period January to April 2022. Volunteers must stay for a minimum of 2 months.

How to apply? Send a short motivation letter stating why and for which period you are interested and your CV via email to carsten.schradin@iphc.cnrs.fr. There is no deadline, but applications are continuously reviewed.

More information under

http://www.stripedmouse.com/documents/-GeneralInformationResearchStationJan20 18.pdf

http://stripedmouse.com/site1_3_5.htm

carsten.schradin@iphc.cnrs.fr

## UHolar Iceland BrainGeneExpressionIntership

Hello everyone,

The Department of Aquaculture and Fish Biology, Hólar University, Iceland, is looking for an intern student (from bachelor to masters, or even DUT/BTS, ...) for a project about brain gene expression related to cognitive abilities in the Arctic charr. See advert below:

Hosting structure : Department of Aquaculture & fish Biology, Hólar University - Iceland & University of Iceland, Reykjavík - Iceland

Dates : 4 to 6 months from June 2022, very flexible and discussable

Gratification : 80 000 ISK per month (around 530 euro /month)

Context of the study: Comparative studies might give an insight on how cognition has evolved across taxa. The evolution of spatial cognition is of a particular interest because all animals depend on navigational skills to find food or mates, retrieve the nest and escape predators. Hence, spatial cognitive abilities have an impact on individuals' fitness and are consequently subject to natural selection. In that sense, spatial cognitive abilities in each population should be locally adapted to its particular ecological conditions. The Icelandic Arctic charr (Salvelinus alpinus, AC) is found as several sympatric morphs thriving in very different types of habitats, from anadromous to benthic and pelagic lake-resident morphs. We hypothesize cognitive abilities and behavior to be shaped according to both evolutionary history and current ecological factors, implying differential expression patterns of genes linked with spatial cognition and neurogenesis between populations. The project is led by Pr. David Benhaïm (lead PI, Hólar Univ.) in collaboration across Hólar Univ. (Pr. Bjarni K. Kristjánsson, Dr. Camille Leblanc), University of Caen, France (Dr. Christelle Jozet), IFREMER, France (Dr. Marie-Laure Bégout), INRA, France (Dr. Xavier Cousin) and University of Iceland (Pr. Zophonías Jónsson).

Student project: The student will specifically identify molecular clues underpinning behavioral and cognitive ability differences between populations, morphs and environments. This will be done by monitoring genes expression patterns in several brain structures of offspring from three wild AC morphs raised under complex vs. plain conditions, that underwent personality and spatial learning tests. To do so, the student will perform:

* RNA extractions from several brain regions * Reverse transcription * qPCR with specially developed PCR primers for a set of genes involved in neurogenesis, neural plasticity and stress regulation * DNA extraction, PCR & gel electrophoreses to genetically sex the test individuals. * If interested, the student will also analyze and interpret the data obtained.

This work will be carried out in Reykjavík at the University of Iceland. The student will be working in close collaboration with a PhD student, Marion Dellinger.

Requirements: The candidates must be enrolled in a degree in the fields of biotechnology or genetics, or relevant equivalent fields. Meticulousness, experience in laboratory manipulation and a solid sense of organization are required. The ideal candidate has a strong interest in pluridisciplinary research with an emphasis on neurosciences and is willing to improve lab bench skills. S/he enjoys working in a dynamic group but should be able to work independently as well. Statistical skills will be a plus. Working language will be English.

Organizational details: Iceland is eligible for Erasmus+ grants.

Application: Applicants should send an application letter, with a statement of research interests and relevant experience and curriculum vitae as a single pdf to both Pr. David Benhaïm (benhaim@holar.is) and Marion Dellinger (marion@holar.is). Requests for further information can be sent at the same email addresses.

All the best,

– Marion DELLINGER PhD Student - Dept. of Aquaculture & Fish Biology - Hólar University & University of Iceland, Iceland Doctor of Veterinary Medicine - National Vet School of Nantes - ONIRIS Chantrerie, France Master's degree - Biodiversity Ecology Evolution - Functional, Behavioral and Evolutionary Ecology - University of Rennes 1, France Háeyri 1, 550 SauÂºárkrókur, Iceland. marion@holar.is +336.26.10.39.36

“marion@holar.is” <marion@holar.is>

## UWisconsin Madison EarlyCareerAwards Nov 26

Dear all, The Crow Institute is inviting early-career evolutionary biologists from outside UW-Madison to apply to UW-Madison Evolution Seminar Series Early Career Awards. The deadline to apply will be November 26th, 2021.

Eligibility: Non-UW-Madison graduate students and postdoctoral fellows who received a Ph.D. no longer than 5 years ago.

Details and the application can be found here: https://evolution.wisc.edu/seminars/early-career-seminars/ If you have any questions please contact Tiago Ribeiro, Joseph Sardina, or Linh Nguyen.

Please feel free to share.

Have a good one Thanks, Tiago, Jojo, and Linh

lmnguyen3@wisc.edu

# PostDocs

## AMNH NewYork BioinformaticsComputationalBiol

American Museum of Natural History Postdoctoral Fellowships in Bioinformatics and Computational Biology

We encourage you to forward this to anyone you think might be interested or might know of good candidates. The application date for this cycle is Monday December 13, 2021.

The American Museum of Natural History seeks highly qualified applicants for a postdoctoral position for its Gerstner Postdoctoral Scholars program in Bioinformatics and Computational Biology. In addition to seeking outstanding applicants pursuing comparative biology research through computational and bioinformatics methods in the broad range of disciplines noted below, the 2021-22 application cycle also includes a special call for applicants who want to pursue aspects of comparative biology research relevant to human health or biomedicine.

Successful applicants will pursue independent and collaborative computational research in areas such as evolutionary genomics, spatial bioinformatics or biodiversity informatics, phylogenetics, phylogeography, population genetics, or high-throughput phenomic/phenotypic evolution 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/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 through participation in the Museum's Bioinformatics Core Team.

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 the biological sciences, bioinformatics, comparative biology, computational biology, computer science, evolution/ecology, genomics, molecular biology, or a related discipline, with substantial experience in the computational analysis and bioinformatics of large biological data sets. Proficiency in Python and/or R is required, and familiarity with other languages, such as C++/C is desirable. Candidates should have skills in genome informatics and/or processing phenomic, transcriptomic, or phylogenomic datasets. Candidates should have extensive research experience with a solid publication record, 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/-research/richard-gilder-graduate-school/faculty 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. In addition, this year's recruitment alsoï¿½includes a special call for applicants who want to pursue comparative biology research relevant to human health or biomedicine,ï¿½with and contributing to the AMNH Bioinformatics Core and other AMNH colleagues to investigate the molecular biology of emerging pathogens; infectious diseases and their vectors; virology; and epidemics and public health; including collections-based work where relevant.

For more information and details on how to apply please click the link below:

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mcmaster.ca/~brian/evoldir.html

## BinghamtonU PolyploidGenomeEvolution

Link: https://www.interviewexchange.com/-jobofferdetails.jsp?JOBID=138616 Job Description: Budget Title: Postdoctoral Associate (SL-1)

Salary: $48,750 (Full-time, temporary)

The Postdoctoral Research Associate will work on a project titled "Comparative analysis of polyploid Xenopus genomes" and assume a leading role in a developing team of researchers focused on using computational methods to study the evolution of polyploid genomes. The project is interdisciplinary and involves collaboration with statisticians and developmental and cell biologists. The project involves identification and comparative analysis of repeat subfamilies as they diverge in closely related genomes.

Requirements: Ph.D. in molecular biology, bioformatics, computer science, statistics or a related field Proficiency with programming and scripting languages appropriate for scalable data analysis (e.g. Python, R, Unix, or similar) Experience with phylogentics algorithms Preferred:

Experience with gene expression or epigentics data is a plus Experience in the field of machine learning in relation to biological data is a plus

Additional Information: Offers of employment may be contingent upon successful completion of a pre-employment background check and verification of degree(s) and credentials.

Binghamton University is a tobacco-free campus.

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

Payroll information can be found on our website https://-/www.binghamton.edu/offices/human-resources/-payroll/ Cover letters may be addressed "To the Search Committee."

Postings active on the website, accept applications until closure.

For information on the Dual Career Program, please visit: https://www.binghamton.edu/offices/-human-resources/prospective/dual-career/index.html Equal Opportunity/Affirmative Action Employer The State University of New York is an Equal Opportunity/Affirmative Action Employer. It is the policy of Binghamton University to provide for and promote equal opportunity employment, compensation, and other terms and conditions of employment without discrimination on the basis of age, race, color, religion, disability, national origin, gender identity or expression, sexual orientation, veteran or military service member status, marital status, domestic violence victim status, genetic predisposition or carrier status, or arrest and/or criminal conviction record unless based upon a bona fide occupational qualification or other exception.

As required by Title IX and its implementing regulations Binghamton University does not discriminate on the basis of sex in the educational programs and activities which it operates. This requirement extends to employment and admission. Inquiries about sex discrimination may be directed to the University Title IX Coordinator or directly to the Office of Civil Rights (OCR). Contact information for the Title IX Coordinator and OCR, as well as the University's complete Non-Discrimination Notice may be found here.

Application Instructions: Deadline for Internal Applicants: 11/12/2021

Deadline for External Applicants: Open until filled

Review of applications will begin immediately and continue until the vacancy is filled.

Persons interested in this position should apply online.

Please submit:

Resume, Cover letter, and Contact information for three professional references You may add additional files/documents after uploading your resume. After you fill out your contact information, you will be directed to the upload page. Please login to check/edit your profile or to upload additional documents: http://binghamton.interviewexchange.com/-login.jsp . – Adam M Session, PhD Assistant Professor Binghamton University Biological Science Department 4400 Vestal Road E Science 3, 146 Vestal, NY 13850 asession@binghamton.edu

Adam Session <asession@binghamton.edu>

## CDFW-UCalifornia Davis DeerLandscapeGenomics

Postdoctoral Position: Mule Deer Landscape and Disease Genomics

Wildlife Genetics Research Unit, California Department of Fish and Wildlife Mammalian Ecology and Conservation Unit, University of California, Davis

We seek a highly motivated candidate with a background in population genomics and evolution to fill a postdoctoral researcher position. The objective of this project is to characterize how genomic variation among CA populations of mule deer is shaped by geographic and environmental variation, and how these factors underlie phenotypic variation and local adaptation. An additional objective is to assess the frequency and geographic distribution of deleterious alleles clinically relevant to Chronic Wasting Disease (e.g., MHC, PPN, etc.), the extent of genetic load, and the threat this pathogen poses to mule deer in California.

Responsibilities: The successful candidate will be responsible for study design, whole genome resequencing library construction, bioinformatic processing of Illumina short-read data, and analysis of SNP variants to determine genomic diversity and adaptive differentiation between populations from contrasting natural environments. The postdoc will have access to a newly generated Odocoileus hemionus chromosome-level reference genome assembly along with whole genome resequencing data for 100's of individuals, as generated under the California Conservation Genomic Project (https://www.ccgproject.org/). The postdoctoral scholar will also be responsible for manuscript preparation as lead author.

Required Qualifications: - — — Completed or be within 1-3 months of completing a PhD in evolutionary genomics, molecular ecology, bioinformatics, or a related field - — — — In-depth knowledge of population genetics theory and analysis. Strong statistical skills - — — — Comprehensive experience working with Linux and R. Proficiency in one or more programming languages (Python or Perl) a plus - — — Experience working with high-throughput sequencing data, ideally with whole genome resequencing data - — — — Demonstrated record of research productivity via first-authored publications in peer-reviewed journals - — — — Highly motivated, able to work independently and with good interpersonal skills - — — — Strong interest in mammal biology and/or wildlife genetics and management

Description of the scientific environment

The postdoc will work at the Wildlife Genetics Research Unit (https://wildlife.ca.gov/Conservation/-Laboratories/Wildlife-Health/Genetics) in Sacramento, CA under the direction of Dr. Michael Buchalski and will additionally collaborate with Dr. Ben Sacks and lab-members at the University of California Davis, Mammalian Ecology and Conservation Unit (https://-mecu.ucdavis.edu/). The CDFW lab was established to advance genetic/genomic research that enhances conservation and management of CA wildlife. Personnel in the lab use genomic methods to infer evolutionary processes related to diversity, population divergence, and local adaptation for numerous species. Ample computational resources are available to support our work through the UC Davis HPC system. Our projects capitalize on a unique set of wildlife samples from an in-house collection as well as our comprehensive statewide network of collaborators. We have developed a program aimed at providing the scientific knowledge needed to improve wildlife management, while also addressing questions of interest in the field of molecular ecology. In addition to being an employee of CDFW, the hiree may be jointly appointed as postdoctoral scholar or research associate at the University of California, Davis.

Salary: This is a full-time position with salary commensurate with the Research Scientist 1 job series within the California state system: $72,600 per year plus full benefits. The initial appointment will be for 1 year but may be extended 1 additional year based on satisfactory performance.

Review of applications will begin in January 2022. Applications will be considered on a rolling basis and continue until the position is filled. The position is available effective immediately. The start date is flexible but anticipated to be in Spring 2022 or when the suitable candidate is identified. Questions regarding the position can be directed to Dr. Michael Buchalski (michael.buchalski@wildlife.ca.gov).

How to apply: The official job posting can be found at https://www.calcareers.ca.gov/CalHrPublic/Jobs/-JobPosting.aspx?JobControlId'8263. Hiring for CA state service has very strict requirements with no flexibility.

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mcmaster.ca/~brian/evoldir.html

## CharlesU Prague PolyploidPopGenomics

***ERC-funded postdoctoral position in population genomics of whole genome duplication

Group of Ecological Genomics (Filip Koláø) Department of Botany, Charles University, Prague, Czech Republic https://botany.natur.cuni.cz/ecolgen We seek a highly motivated, independent early career researcher interested in leading a research program within the context of an ERC-funded project focused on the evolutionary consequences of whole genome duplication addressed using available population genomic data of multiple plant species (for details see below). The successful candidate will join the team of Ecological Genomics at Charles University in Prague (Czech Republic, EU), lead by Filip Koláø (https://botany.natur.cuni.cz/ecolgen) and will work in close collaboration with our partner labs focused on evolutionary genomics lead by Tanja Slotte (Stockholm University, Sweden) and Levi Yant (University of Nottingham, UK). The start date is negotiable, from early 2022.

**Requirements - keen interest in leading an independent research program within a highly collaborative research group - experience in handling large scale high-throughput sequence data - a strong background in structural, statistical, and/or population genomics - PhD in evolutionary biology, genetics, bioinformatics, or related fields (previous experience in leading an independent postdoctoral project is advantageous, but not required)

**We offer - competitive monthly salary of 2,400 EUR (note that average monthly gross salary in the Czech Republic was ~1,500 EUR in mid-2021 and living expenses are generally lower in CZ than in western Europe) - work in a young, dynamic and international environment, situated in an inspiring city centre - involvement in international collaboration including stays in collaborating labs

**Optional - further possibilities for strengthening academic career - take part in teaching relevant courses - supervision of master project(s) in the Bioinformatics or Evolutionary Biology program - participate in fieldwork in Europe or North America - opportunity to develop independent research follow-up project - support for seeking additional self-funded projects in national (designated Junior Researcher projects within The Czech Science Foundation) and international funding schemes (e.g. Marie Curie, EMBO fellowship)

**Project details Whole genome duplication (WGD, polyploidization) is a dramatic genome-wide mutation whose ubiquity across eukaryotes suggests an adaptive benefit, although the underlying mechanism remains unknown. In the project, the successful applicant will test the hypothesis that WGD promotes accumulation of potentially beneficial variation in general and when facing novel environmental challenges in particular. The project will build on our research in Arabidopsis arenosa that demonstrated increased potential of its natural polyploid populations to accumulate adaptive variation (see doi: 10.1038/s41559-019-0807-4, Nature Eco & Evo.; doi: 10.1073/pnas.2022713118 PNAS and doi: 10.1038/s41467-021-25256-5 Nature Comms.). The candidate will extend well-beyond this system to additional mixed-ploidy species to discern the generality in how selection affects polyploid genomes. The core of the analysis will involve available population-level short-read data of ten plant species; long-read data for several species are also available for validation. For overall info on the Starting ERC project see https://botany.natur.cuni.cz/-ecolgen/node/48 . Please send your CV, contact details for two referees and a half-page motivation letter in a single pdf file to Filip. Review of the applications will begin on Dec 10th 2021 and will continue until the position has been filled.

Filip Koláø < filip.kolar@natur.cuni.cz>

Filip Kolar <filip.kolar@gmail.com>

## CornellU FishMetagenomics

Postdoc Position: Genetic Ingredient Tracing for Next-Generation Sustainability Certification of Aquaculture Feeds

The Therkildsen and McIntyre Labs at Cornell University, in partnership with the Environmental Defense Fund's Oceans Program and WorldFish, are hiring a postdoc for a project aiming to map out the sources of fish used to feed the global expansion of aquaculture. The postdoc position will offer leadership opportunities in two main areas. First, building on earlier metabarcoding work, we will explore the potential to leverage cost-effective shotgun sequencing approaches to examine the taxonomic composition and relative abundance of

key constituents in aquaculture feeds collected worldwide. The resulting species lists will be used to assess the global geography of connections between the harvest of wild fish and the production of farmed fish. Second, we will engage with industry and NGOs to pave the way for integrating metagenomic tools into next-generation standards for aquaculture sustainability certification.

The ideal candidate will have completed a PhD by January 2022, have strong skills in molecular ecology (metabarcoding, metagenomics, and bioinformatics experience is especially relevant), demonstrated interests in fisheries and sustainable food systems, and a strong publication record commensurate with career stage. We will favor applicants with experience and commitment to outreach efforts that generate real-world impact from research results. We expect the postdoc to help design and execute genetic analyses in the lab, and to lead bioinformatic data processing and biogeographic inferences. Equally important, the postdoc will work directly with NGO, industry, and trade association partners to explore the role that DNA-based ingredient tracing can play in making aquaculture feed supply chains more sustainable. This project is a collaborative effort and will require a team-oriented approach, as the postdoc will work closely with both Cornell PIs, other academic collaborators, and our NGO partners.

The start-date is flexible, but could be as early as February 2022. A competitive salary and benefits package will be provided, and residence in Ithaca, NY is expected. The postdoc will join a vigorous multidisciplinary community of scholars in the Department of Natural Resources and the Environment, and the Cornell Atkinson Center for Sustainability. Cornell University and our project team embrace diversity, and seek candidates who will contribute to a climate that supports students, faculty and staff of all identities and backgrounds. We strongly encourage individuals from underrepresented and/or marginalized identities to apply.

To apply, please submit a 2-page letter of interest, a CV, contact information for 3 references, and a statement of contribution to diversity, equity, and inclusion (guidance here) via Academic Jobs Online at the following link: https://academicjobsonline.org/ajo/jobs/20018 . We welcome pre-application inquiries; feel free to email Nina (nt246@cornell.edu) and Pete (pbm3@cornell.edu) with any questions about this position. Review of applications will begin on November 30, 2021, and will continue until the position is filled.

Nina Overgaard Therkildsen——(she/her/hers) Assistant Professor, Department of Natural Resources and the Environment, Cornell University https://-www.therkildsenlab.com/ Nina Overgaard Therkildsen <nt246@cornell.edu>

## DurhamU PopulationGenomics

https://durham.taleo.net/careersection/-du_ext/jobdetail.ftl?job=21001048&tz=-GMT%2B00%3A00&tzname=Europe%2FLondon

I am searching for a postdoc with an interest in population genomics and/or historical demography to join a NSF/NERC-funded projecttackling the question of how adaptations that reduce interspecific interference affect range expansion.

The focal species,Hetaerina titia, varies in wing coloration both seasonally and geographically, and wing colour determines the frequencyand intensity of territorial and reproductive interactions betweenH. titiaand other sympatricHetaerinaspecies. Taking advantage of among-population variation in wing colour, we will use genomic approaches to understand how behavioural interference between speciesinfluences range dynamics.

The successful applicant will be expected to take a leadership role in the design and management of the genomic analyses (from libraryprep to analyses) on existing samples to compare rates of diversification and historical demography amongH. titiapopulations andbetweenH. titiaand four congeners to differentiate between several possible historical range expansion scenarios.

Please contact Jonathan Drury (jonathan.p.drury@durham.ac.uk) with any questions. Deadline for application: 28 January 2022

"DRURY, JONATHAN P." <jonathan.p.drury@durham.ac.uk>

## EPFL Lausanne ModelingMicrobialEvolution

Dear colleagues,

I am pleased to announce an opening for a postdoctoral researcher on "Modeling evolution of bacteria in the gut" in my group at EPFL (Ecole Polytechnique Federale de Lausanne, Switzerland). This project will be conducted in close collaboration with Dr. Claude Loverdo

(CNRS-Sorbonne Universite, Paris, France).

To apply, please send a cover letter, detailed resume and copies of transcripts and certificates to anne-florence.bitbol@epfl.ch *by December 10*.

The position will be initially for 1 year, with the possibility of renewal. The ideal start date is early 2022. More information at https://recruiting.epfl.ch/Vacancies/-2090/Description/2 Best regards, Anne-Florence Bitbol

Anne-Florence Bitbol <anne-florence.bitbol@epfl.ch>

## EPFL Switzerland ModelingMicrobialEvolution

Dear colleagues,

I am pleased to announce an opening for a postdoctoral researcher on "Modeling evolution of bacteria in the gut" in my group at EPFL (Ecole Polytechnique Federale de Lausanne, Switzerland). This project will be conducted in close collaboration with Dr. Claude Loverdo (CNRS-Sorbonne Universite, Paris, France).

The position will be initially for 1 year, with the possibility of renewal. The ideal start date is early 2022. The ideal background for this position is in statistical / nonlinear physics or applied mathematics. Full information at https://recruiting.epfl.ch/Vacancies/2090/-Description/2 Best regards, Anne-Florence Bitbol

Anne-Florence Bitbol <anne-florence.bitbol@epfl.ch>

## Flagstaff Arizona PlantConservation

The Genetics for Western Restoration and Conservation research group (https://www.usgs.gov/sbsc/gwrc) at the U.S. Geological Survey Southwest Biological Science Center in Flagstaff, AZ is seeking a recent graduate (i.e., who earned a PhD within the last 60 months) to assist with population genetic, landscape genetic, and potentially field-based restoration research projects. The projects involve plant species that are commonly used for restoration across the Intermountain West. Research questions revolve around recent and historical demographic trends, population structure/phylogeography, inferences of putative adaptation to regional environmental gradients, taxonomy, climatic factors influencing restoration success, etc. Many of the data are in hand and the candidate will immediately contribute to all stages of project development/execution. The candidate will predominantly work in an office setting, but some field work may be possible. This position is open to U.S. citizens and is funded for 12 months - extensions are dependent upon future funding. The pay rate will be consistent with a GS-11 Ecologist ($31.08/hour) and the position is eligible for benefits. The candidate must pass a federal background check, a pre-employment physical, and have a clean driving record.

Expectations:

Authorship/co-authorship on multiple peer-reviewed publications Work well in a collaborative settingConsistent and excellent attention to detailWork in Flagstaff, AZ and start approximately 4-6 weeks after selection

Minimum qualifications:

PhDExperience with next-generation sequencing protocols and data pipelinesProgramming and data analysis skills in RAbility to manage/work with big data (genetic and climate)Experience with genetic analyses applicable to SNPs, for example: Stacks, ipyrad, genetic structure/assignment tests, PCA and sPCA, fastsimcoal2/dadi, LFMM, RDA, Procrustes, EEMS, Bedassle, etc.Excellent writing skills

Desired qualifications:

Demonstrated ability to publish in peer-reviewed journalsKnowledge of western U.S. plant communities and natural historyWorking knowledge of mixed models and field-based climate manipulation experimental designsConversant in restoration topics pertinent to the western U.S.Experience with other programming/scripting languages (Python, Perl, C++, shell, etc.)Experience working with remote high-performance computing clusters (managed by slurm)

If interested, please submit a cover letter and CV (including contact information for three references) to Rob Massatti (rmassatti@usgs.gov). This position is open until filled but applications received by December 3rd will receive full consideration.

"Massatti, Robert T" <rmassatti@usgs.gov>

## Frankfurt ComparativeGenomics

Job Announcement ref. #12-21006

PostDoc Positions in Comparative Genomics The Hiller Lab at the LOEWE Center for Translational Biodiversity Genomics (TBG) in Frankfurt, Germany is looking for two ambitious Postdocs to investigate the genomic basis of phenotypic differences between vertebrates.

The Project We offer several projects that range from the development of new comparative genomic methods to accurately detect relevant genomic changes in big datasets to applying existing and new approaches to link phenotypic adaptations to genomic differences, which is a central goal in the genomics era. The postdoc is expected to capitalize on a powerful repertoire of Forward Genomics and other methods such as TOGA ((Tool to infer Orthologs from Genome Alignments) as well as available genome alignments and comparative data for hundreds of mammals and birds. A large list of interesting adaptations including metabolic, physiological and morphological traits in bats, dolphins, other mammals and vertebrates is available to be studied, and choices can be influenced by the preference of the postdoc.

Our lab The mission of our group is to understand how nature's fascinating phenotypic diversity has evolved and how it is encoded in the genome. Work in the lab includes sequencing and assembly of reference-quality genomes, genome alignment and annotation, development and application of comparative genomic methods to discover differences in genes and cis-regulatory elements, and the use of statistical approaches to link phenotypic to genomic changes [1-9].

Our lab is part of TBG (https://tbg.senckenberg.de/) and Senckenberg Research Society, and is based near the city center of Frankfurt am Main, Germany. TBG provides access to cutting-edge computational (HPC clusters, genome browser) and lab infrastructure to sequence genomes. English is the working language in our lab. Senckenberg and TBG provide flexible working hours, an annual special payment, a company pension scheme, the Senckenberg badge for free entry in museums, the zoo, botanical garden and Palmengarten, a leave of 30 days per year, and a subsidy job ticket for public transport. Frankfurt is a vibrant and highly-international city at the heart of Europe that combines a skyscraper skyline with ample park and green areas.

Requirements

Applicants should have a degree in bioinformatics/computational biology, genomics or a related area, and a strong publication record. Solid programming skills in a Linux environment and experience with shell scripting and Unix tools are required. Previous experience in large-scale comparative genomic data analysis is an advantage.

Place of employment: Frankfurt am Main

Working hours: full time (40 hours/week)

Type of contract: initially for 2 years, but funding is available to extend it further

Salary and benefits: according to the collective agreement of the State of Hesse

(pay grade E13 100%)

The position is fully funded and should ideally start as soon as possible.

The employer is the Senckenberg Gesellschaft für Naturforschung who supports equal opportunity of men and women and therefore strongly invites women to apply. Equally qualified handicapped applicants will be given preference.

How to apply

Please send your application, mentioning the reference of this job offer (ref.#12-21006), by e-mail to Michael Hiller (michael.hiller@senckenberg.de) and recruiting@senckenberg.de. Alternatively use our online application form on https://www.senckenberg.de/en/-career/apply-online/. The application should include a CV with publication list and contact information for at least two references, and a summary of previous research experience (max 1 page), and copies of certificates, transcripts and grades.

The initial application deadline is December 12th, 2021, but the search will continue until the position has been filled.

For more information please contact Prof. Dr. Michael Hiller, michael.hiller@senckenberg.de or use the following link: https://tbg.senckenberg.de/personen/hiller/
Recent publications

[1] Blumer et al., Gene losses in the common vampire bat illuminate molecular adaptations to blood feeding. bioRxiv, 2021.2010.2018.462363 (2021).

[2] Jebb et al. Six reference-quality genomes reveal evolution of bat adaptations. Nature, 583, 578-584, 2020

[3] Huelsmann et al. Genes lost during the transition from land to water in cetaceans highlight genomic changes associated with aquatic adaptations. Science

Adv, 5(9), eaaw6671, 2019

[4] Hecker et al. Convergent gene losses illuminate metabolic and physiological changes in herbivores and carnivores. PNAS, 116(8), 3036-3041, 2019

[5] Roscito et al. Phenotype loss is associated with widespread divergence of the gene regulatory landscape in evolution. Nature

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## GifsurYvette France GeneticsAndEvolution

We are recruiting a postdoc for a 37-month position in Gif-sur-Yvette (France) within the ANR EVOLREC < https://anr.fr/PROJET-ANR-20-CE13-0010 > project (https://anr.fr/PROJET-ANR-20-CE13-0010).

The successful candidate will participate in the development of a project combining experimental evolution and genetics in S. cerevisiae within the group Biology of Adaptation and Systems in Evolution (BASE) of the joint research unit Quantitative Genetics and Evolution (GQE) - Le Moulon in Gif-sur-Yvette. The project addresses evolutionary aspects of meiotic recombination through three main questions: how recombination rate responds to directional artificial selection, what are the genetic determinants underlying that response, and the interplay between recombination and the dynamics of adaptation to stress. Evolution experiments are performed by chaining generations of sexual reproduction from an initial population with high standing genetic variation. Selection on recombination rate is applied at high-throughput by FACS based on the segregation of fluorescent markers, and stress selection is applied during vegetative growth phases. The project also includes the identification of QTLs affecting recombination in trans and in cis, via pool-seq and tetrad sequencing.

More details on our site http://moulon.inrae.fr/en/-news/2021/11/postdoc-position-open-in-genetics-and-evolution-of-meiotic-recombination-3-years/

The position would start on March 1, 2022 for 37 months, with a monthly before-tax salary between 2,098 euro et 2,583 euro depending on seniority. Having a driver license is a plus, but is not required.

Feel free to reach out to me directly at matthieu.falque@inrae.fr

Matthieu Falque <matthieu.falque@inrae.fr>

## HarvardU PlantEvolution

Katharine H. Putnam Fellowships in Plant Science

The Arnold Arboretum of Harvard University invites applicants for research fellowships in plant science. Putnam Fellowships offer excellent opportunities for advanced research and study using the Arboretum's living collections of woody plants. Scientists with a PhD and who have identified an independent research project that would utilize the Arboretum's living collections are encouraged to apply. The living collection, numbering some 15,000 plants, in over 2,200 species, is distinguished as one of the most thoroughly documented collections of temperate woody plants in the world. Taxonomic diversity and breadth within the collection are noteworthy, and the floras of China, Japan, and Korea are particularly well represented.

Deadline: Feb 1

Eligibility: Proposals are sought from early-career individuals with a PhD in plant biology, evolution, plant genetics, plant ecology, horticulture, or related discipline. Applicants should be well positioned to conduct original, independent research and to publish their findings in peer-reviewed publications.

Fellowship Details: Putnam Fellows are full-time employees of Harvard University during their tenure, with stipends of up to $53,000 per year depending on the duration of the fellowship, and are eligible for health insurance benefits. Modest support is available for research expenses and travel costs. The fellowship is typically awarded for 2 years, pending a satisfactory progress report at the end of the first year. Putnam Fellows are expected to be in full-time residence at the Arboretum and are provided office and research space.

The Putnam Fellowship is an independent post-doctoral position. As an independent scholar, Putnam Fellows have access to shared laboratories, resources, and interactions with fellow scientists, students and staff. It is not necessary to have a specific faculty host.

More information: http://arboretum.harvard.edu/-research/programs-and-opportunities/ – Faye Rosin, PhD Director of Research Facilitation Arnold Arbore-

tum of Harvard University 1300 Centre St Roslindale, MA 02131

phone: (617) 384-5095 fax: (617) 384-6596

frosin@oeb.harvard.edu http://arboretum.harvard.edu/ "Rosin, Faye M" <frosin@oeb.harvard.edu>

## HongKongU EvolutionaryGenetics

Post-doctoral Fellow in Ecology and Biodiversity in the School of Biological Sciences

Applications are invited for appointment as Post-doctoral Fellow in Ecology and Biodiversity in the School of Biological Sciences, The University of Hong Kong (Ref.: 508890), to commence on August 1, 2022 for three years.

The appointee will help strengthen research performance of the research programme in Ecology and Biodiversity by joining Merilï¿½ Lab (www.biodiversitygenetics.com < http://www.xxx >) in which the main research foci are ecological genetics and evolutionary biology. Our current projects include but not limited to the studies of recombination rate variation; variation in rates of de novo mutations in small and large populations; sex chromosome evolution; quantitative genetics of ecologically important traits; and conservation genetics of birds and fishes. The appointee can either join one of the ongoing projects in the laboratory or propose their own ideas for research directions. Enquiries about the post should be sent to Professor Merilï¿½ at merila@hku.hk.

Applicants should possess a Ph.D. degree in Ecology, Evolutionary Biology, Population and Quantitative Genetics, Computational Genomics, or a related field. Good communication skills, willingness and ability to supervise and mentor students and colleagues are expected.

The Research Programme in Ecology and Biodiversity (EB) is one of the two research areas at the School of Biological Science. EB oversees a range of projects on fundamental research in ecology and evolution as well as applied work on environmental change, wildlife forensics and conservation. It has strengths in ecology, evolutionary and environmental biology, marine sciences, as well as in global change and conservation biology. For more information on EB, please visit: https://www.scifac.hku.hk/research/research-divisions-and-units/research-divisions/ebd . The Faculty of Science provides a supportive and friendly environment and has embarked on a programme of recruitment to invest in areas of acknowledged strength and internationally competitive activity. Information about the Faculty can be obtained at https://www.scifac.hku.hk/ and https://www.cpao.hku.hk/firstandforemost/rankings . A highly competitive salary commensurate with qualifications and experience will be offered, in addition to annual leave and medical benefits. At current rates, salaries tax does not exceed 15% of gross income.

The University only accepts online applications for the above post. Applicants should apply online and upload an up-to-date C.V., publication list, a cover letter and a letter of intent explaining why they would like to be considered for the position in PDF format. Applicants should also name two referees who are able to provide reference letters. Review of applications will commence as soon as possible and continue until March 30, 2022, or until the post is filled, whichever is earlier.

Juha Merilï¿½

Division for Ecology & Biodiversity The School of Biological Sciences The University of Hong Kong Kadoorie Building (office 3N-19) Pokfulam Road Hong Kong, SAR

Office tel: (+852) 2299 0607

merila@hku.hk

Division of Ecology and Biodiversity: https://www.scifac.hku.hk/research/research-divisions-and-units/research-divisions/ebd Google Scholar: https://scholar.google.com/citations?user=-cZJ7ifQAAAAJ&hl=en merila <merila@hku.hk> merila <merila@hku.hk>

## ImperialC London MicroclimateModelling

Job Title: Research Associate in Microclimate Modelling

We are seeking a team member with experience in one of climate or weather modelling, environmental physics, hydrology or microclimate ecology - including the dependence of organismal physiology on small-scale climate variation - to create a model for understanding microclimate patterns in a tropical rainforest.

We particularly invite female applicants and applicants from underrepresented groups in STEM subjects. We also welcome applications from candidates that would

like full-time or part-time positions on this project, and will support job-sharing arrangements.

As a Postdoctoral Research Associate in Microclimate Modelling, you will collaborate on the development of one of four modules that together will form a virtual rainforest (the others are plants, animals and soil microbes). Our simulation will attempt to predict spatial and temporal patterns in microclimate (e.g. air and soil temperature, soil moisture, vapour pressure deficit), vertical profiles of canopy temperature, and possibly extend to streamflow (e.g. base flows, flood frequency and magnitude).

You will be supported in your role by additional team members, and the project provides a generous budget for placements and secondments to connect and share with research groups beyond our own. The virtual rainforest will rely heavily on data collected from the SAFE Project (www.safeproject.net), and you will be asked to help with the management of these datasets. All team members will have the opportunity to develop their skills and competencies through the sharing of tasks and knowledge, and you will be given time, resources and encouragement to pursue your professional development.

Applicants from any climate, hydrology, physics or ecology background are encouraged to apply. You will be one member of a core team of five committed people, across which we are seeking considerate team members who provide complementary technical skills and disciplinary knowledge. Programming experience - preferably in Python - is an advantage, and experience with either process-based or numeric simulation modelling is desirable.

This position is full-time and fixed term until 30 September 2024, and will be based at Imperial College London's Silwood Park Campus.

To apply, visit https://www.imperial.ac.uk/-jobs/description/NAT01012/research-associate-microclimate-modelling, or go to www.imperial.ac.uk/-jobs and search by the job reference NAT01012. The deadline for applications is 03-Jan-2022.

Should you require any further details on the role please contact: Prof. Rob Ewers - r.ewers@imperial.ac.uk. Informal enquiries are welcomed.

"Ewers, Robert M" <r.ewers@imperial.ac.uk>

## LinkopingU PopulationGenetics

Principal Research Engineer/PostDoc in population genetics

Linkï¿½ping University, Sweden

The Biology section at the Department of Physics, Chemistry and Biology is looking to hire aPrincipal Research Engineer/PostDocto work on a Nordic collaborative project concerning Crop Wild Relatives and their conservation (https://www.nordgen.org/en/projekts/-crop-wild-relatives/). The position is for 12 months with the possibility of further extention of up to one year.

The successful applicant will carry out population genetic studies of CWRs aiming to answer questions concerningthe successful long-term conservation of CWRs in the Nordic countries, but also colonisation aspects of the evolutionary history of CWRs.

Application deadline: 13 December

Questions can be sent to: Jenny.Hagenblad@liu.se

Further information about the position and application procedure: https://liu.se/en/work-at-liu/-vacancies?rmpage=job&rmjob=17630&rmlang=UK
Jenny Hagenblad <jenny.hagenblad@liu.se>

## LundU Sweden EvolutionaryBiology

Postdoc in Evolutionary Biology: plant adaptation to novel pollinators

Lund University, Sweden

The 'Evolutionary Ecology of Plant-Insect Interactions' research group is recruiting a fully-funded postdoctoral researcher (2 years) to work on questions related to plant adaptation to novel pollinator assemblages. The project is led by Dr. ï¿½ystein Opedal and will combine existing original data and databases with new field and greenhouse data to better understand the factors affecting evolutionary potential and constraint in plant evolution, with focus on traits functionally involved in plant-insect interactions. The successful applicant will be encouraged to help develop the project in new di-

rections in collaboration with the project team, and the exact project plan will be adjusted based on the background and interest of the applicant. The starting date is negotiable.

Application deadline: 15. January 2022

Questions are welcome to oystein.opedal@biol.lu.se

Further information and info on how to apply is available at https://lu.varbi.com/de/-what:job/jobID:449723/?lang=en ï¿½ystein Opedal <oystein.opedal@biol.lu.se> ï¿½ystein Opedal <oystein.opedal@biol.lu.se>

## LundU Sweden ExperimentalEvolution

A postdoctoral researcher position is available to investigate the evolution of evolvability in microalgae. The project is a collaboration between Tobias Uller (http://feiner-uller-group.se/) and Charlie Cornwallis (http://www.charliecornwallis.org/) at the Department of Biology, Lund University, Sweden. Funding is initially available for three years.

Summary: Recent theory predicts that the evolution of plasticity can modify the distribution of phenotypes accessible through genetic mutation (the 'genotype-phenotype map'). This, in turn, may influence the course of evolution and how organisms adapt to new challenges. This project aims to put this body of theory to the test, using a combination of experimental evolution, phenotypic and genetic engineering, and analyses of metabolic, transcriptomic and genomic data. The project is part of an international research programme (https://www.biologicalpurpose.org/) that provides excellent opportunities for career development. The preferred start date is some time during the first quarter of 2022, with some flexibility.

Your role: You would contribute to the design and running of selection lines of unicellular algae, carry out experimental assays, collect and analyse phenotypic, genetic and transcriptomic data, and disseminate the results. The position offers opportunities to develop your own research interests and supervision skills. We encourage collaborations within and outside Lund University. The project is well supported by technical personnel that assist with the daily running of experiments.

Your qualifications: We look for someone with a strong interest in evolutionary biology, prior experience of experimental evolution and laboratory experiments on unicellular organisms, and/or working with genomic or transcriptomic data. You must have a PhD in a relevant area, and should demonstrate a commitment to basic research, good work ethics, computational skills, organizational ability, and publication productivity.

How to apply: Submit your application, CV and cover letter via this link by 13th Dec 2021 12:00 CET.

https://lu.varbi.com/what:job/jobID:441336/?lang=-en For more information on this project and the position, please contact Prof. Tobias Uller (tobias.uller@biol.lu.se). For more information on our research, please visit us at http://feiner-uller-group.se/ and http://www.charliecornwallis.org/ . Tobias Uller <tobias.uller@biol.lu.se>

## Lyon EvolutionaryEcology

Dear colleagues,

Please find a post-doc position in evolutionary ecology in Lyon, France. All the informations are below:

A post-doctoral position is available at LBBE, Laboratoire de Biométrie et Biologie Evolutive, Lyon, France (https://lbbe.univ-lyon1.fr/fr) with the CrashPest ANR project. The candidate will work with Prof Emmanuel Desouhant (emmanuel.desouhant@univ-lyon1.fr) and Dr Laurence mouton (laurence.mouton@univ-lyon1.fr), PI of the project.

The CrashPest project aims at developing a novel method to control pest populations of insects. This method takes advantage of intrinsic demographic processes: /Wolbachia/-induced cytoplasmic incompatibility, a form of conditional sterility which allows these bacteria to spread in host populations, combined with an Allee effect arising from mating disruption. The idea is based on a recent theoretical study which hypothesized that the transient decline in population size caused by a successful invasion of /Wolbachia/ could drive the population below its Allee threshold, and consequently, to extinction. The species under study is the pest /Drosophila suzukii/.

Within this general framework we are seeking a post-doc experienced in behavioural experimental work with insects, in the theoretical context of sexual selection and life history evolution. The candidate will explore the behaviours of males searching females in a context of mating disruption and then test experimentally

the effect of conspecific density on the probability of finding a sexual partner. This experiment will provide information on the component, mate-finding, Allee effect underpinning mating disruption. Moreover, the candidate will investigate the influence of /Wolbachia /(presence, density and strain) on sexual selection (/i.e./ mate choice, strength and direction of sexual selection) with a focus on mate choice that may limit the invasion of the two exotic /Wolbachia/ strains into the natural system.

The position (salary: between 2675 et 3805 euro per month before taxation according to experience)would be for 18 months. To apply, please prepare a one-page cover letter explaining your interest, with the names and email addresses of two people with first-hand knowledge of your past research experience. Please, add a curriculum vitae including a publication list (2 pages max.). Send your completed application in a single PDF file by email. The dead line for submission is the 16 december 2021 and the position will be open in march 2022.

Application should be done here: https://-emploi.cnrs.fr/Offres/CDD/UMR5558-NATARB-024/Default.aspx All the best

Emmanuel and Laurence

–

Emmanuel Desouhant Université Claude Bernard Lyon1 43 Bd du 11 Novembre 1918 Bat Mendel, Etage 1 Laboratoire Biométrie et Biologie Evolutive (LBBE), UMR CNRS 5558, VetAgroSup 69622 Villeurbanne Cedex, France

Tél—: 00 33 (0)4 72 43 26 33 LBBE—:https://lbbe.univ-lyon1.fr/fr Master 'Ecologie, Evolution, Génomique'—:https://www.bee-lyon-univ.fr/ Emmanuel Desouhant <Emmanuel.Desouhant@univ-lyon1.fr>

## Morton Arboretum LingeringAshBreeding

We are seeking a highly motivated individual to join the international team of researchers in our effort to improve trees and enhance their ability to meet the challenges of the future. The McQuaid Postdoctoral Fellowship in Tree Genomics will collaborate with the US Forest Service Northern Research Station's EAB-resistant ash breeding program. Utilizing resources from this program that include phenotyped, pedigreed families, the fellow will work to identify quantitative trait loci data from the results of a bioassay that reproducibly measures differences in response to EAB, leading to a genotyping platform. Given initial results from a population of F1 crosses, gain in resistance was considerable and heritable. The Fellow will collaborate closely with a community of experts working on this project at a number of institutions, including the University of Notre Dame, Pennsylvania State University, University of Tennessee, and the University of Connecticut. While green ash is the focus of the work, careful consideration will also be given to identifying a generalized approach to rapidly responding to invasive pests and diseases in trees.

General Summary: Combine resources, collections, and expertise available at The Morton Arboretum with the latest techniques and facilities available at leading centers for tree genomic research to address important challenges facing trees in a rapidly changing modern world. Leverage strengths of The Morton Arboretum and its research partners to advance tree genomic research and help create effective strategies for improving tree health and sustainability. Funding for this position is temporary and is expected to run for 24 months.

Qualifications: Ph.D. in a biological field required, with expertise in genomics, bioinformatics, population genetics, quantitative genetics, plant breeding, horticulture, or related field. Experience with the necessary technologies and analytical techniques to address the research question is required. Experience with tree breeding and propagation techniques is preferred. Experience working in a distributed team environment, through a combination of in-person and virtual interaction, is beneficial. A successful track record as an emerging research scientist including demonstrated communication with academic and professional audiences through publications, presentations and/or other media, and a commitment to conducting relevant and timely research is required.

Success Factors: Strong analytical and technical abilities. Self-motivated, with the initiative and resourcefulness to implement, evaluate, and report on research projects. Desire to conduct interdisciplinary research with other scientists that result in applied solutions. Ability to work and communicate with a dispersed team. Ability to write manuscripts for scientific peer-reviewed journals and communicate results to a broad audience. Ability to embrace and align with the organization's employee core values to be inclusive, take ownership, work together, keep learning, and make the Arboretum exceptional.

APPLY: visit https://mortonarb.org/join-support/-employment/. Look for a listing for McQuaid Fellow. Address any questions about the position to Chuck Cannon <ccannon@mortonarb.org>.

ccannon@mortonarb.org

## NCU Poland InsectPhylogenomics

NCU_Poland.Phylogenomics

Apply by: 31th December 2021

Postdoctoral Research Fellow in insects phylogenomics, Nicolaus Copernicus University in Toruñ

The research group led by Dr Andrzej Grzywacz at the Nicolaus Copernicus University (Poland) is looking for candidates for a postdoc position to work within the project entitled: "A large-scale phylogeny and evolution of immature stages in megadiverse family Muscidae (Diptera)". The position is for a period of 1 year. Starting date no later than 1st March 2022. The purpose of this project is to use various next generation sequencing (NGS) approaches to reconstruct a phylogeny of dipteran family Muscidae and investigate evolutionary histories of larval morphology and feeding strategies.

Scope of the project: Insects representing more than half of living species reached astonishing evolutionary success and an amazing variety of natural histories. Studying evolutionary histories within certain insect lineages will allow to understand how the majority of organisms diversity on Earth evolved. The evolution of phenotypic traits depends on many factors. In consequence two opposite patterns of rates of morphological diversification may occur, i.e., rapid phenotypic changes or long-term phenotypic stasis in evolutionary lineages. On the other hand, particular habitats may elicit evolution of overall similar morphological traits. To overcome the issue of constraints in trait's ability to change, organisms may adapt to new local environments by means of introduction of phenotypic innovations. In this project, using megadiverse dipteran family Muscidae, app. 5 200 species, as a model group we will investigate whether adaptations to various feeding strategies within certain lineages of living organisms may lead to certain structural changes. Since taxonomic relationships within Muscidae remains questionable, we will use various next generation sequencing (NGS) approaches to reconstruct a large-scale phylogeny of Muscidae. Subsequently, we will identify traits of immature stages morphology conserved across Muscidae clades and will use them as a corroboration of certain nodes in phylogenetic tree to build a new robust classification system. Taking the advantage of phylogenetic comparative methods, we will investigate whether certain modifications of immature stages morphology in various Muscidae lineages are correlated with feeding strategies such that feeding strategies in Muscidae reflect certain modifications in larval morphology. Subsequently we will perform a stochastic mapping to infer the ancestral feeding strategy and ancestral traits of larval morphology of Muscidae to explore their evolutionary histories and investigate mechanisms involved in adaptations to local environments.

Scope of work: - performing laboratory work, i.e. DNA extractions, library preparation, enrichment with UCE baits, sequencing - bioinformatic processing of raw sequences for the phylogenomic analysis - participating in phylogenetic analyses - working closely with other members of the group - participating in data analysis and interpretation of the results - writing publications with other members of the team - presentation and dissemination of the obtained results in the form of conference talks and scientific papers

Requirements: - PhD degree in biological sciences or a related area, awarded or to be awarded before January 2022, but no earlier than 7 years ago - experience in the molecular lab work, including NGS techniques - experience in bioinformatics concerning the analysis of genomic data for phylogenetic purposes - skills in R, python or another programming language - theoretical knowledge on phylogenetics and evolutionary biology - fluency in English - enthusiasm for science - communication and organizational skills - creativity, ability to work independently and in collaboration with other scientists

Desired qualifications: - record of publishing in peer-reviewed literature, - awards resulting from scientific work, scholarships, participation in workshops and scientific projects - experience in working with insects will be an advantage

We offer: - an employment contract (post-doc position) for a period of 12 months. Salary: 10000 PLN (~2100 Euro)/month - gross wages; net ~1300 Euro/month. Offered salary is significantly higher than the mean salary in the country (5657 PLN gross, according to https://stat.gov.pl/en/latest-statistical-news/communications-and- announcements/list-of-communiques-and-announcements/average-gross- wage-in-the-3th-2021,281,32.html). This is sufficient to cover the life expenses and assures a good standard of living in Poland, especially in Toruñ where life expenses are lower compared to other cities in Poland. - vibrant international academic environment - a proffesionally stimulating working environemnt

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## NHGRI-NIH Bethesda ComputationalGenomics

Computational and Statistical Genomics Branch National Human Genome Research Institute National Institutes of Health

Postdoctoral Fellowship in Bioinformatics and Evolutionary Genomics

A postdoctoral training position is currently available in the Computational and Statistical Genomics Branch (CSGB) of the National Human Genome Research Institute (NHGRI). The position is located in the laboratory of Andy Baxevanis, Ph.D., whose research group uses comparative genomics approaches to better-understand the molecular innovations that drove the surge of diversity in early animal evolution. The overarching theme of Dr. Baxevanis' research program is focused on how non-traditional animal models can be used to convey critical insights into human disease research, in line with the NIH Intramural Research Program's renewed emphasis on developing new animal models for the study of basic biology.

With this translational context in mind, Dr. Baxevanis' group is currently leading international efforts to sequence several cnidarian species that have the potential to serve as excellent models for the study of allorecognition. In collaboration with colleagues at the University of Pittsburgh and the University of Maryland School of Medicine, we are seeking to recruit a postdoctoral fellow who will use computational approaches to advance our understanding of the genomic complexity of these invertebrate self/non-self recognition systems. The successful applicant will have the opportunity to develop and apply comparative genomic approaches to these and other large-scale genomic data sets, focusing on the evolution of specific protein families and biological pathways that may play critical roles in the immune response.

Candidates should have or be close to obtaining a Ph.D. or equivalent degree in bioinformatics, computational biology, computer science, molecular biology, or a closely related field. Postdoctoral traineeships are not available to scientists who have more than five years of relevant research experience since the receipt of their most recent doctoral degree. Candidates with a background in immunology and evolutionary biology are particularly encouraged to apply.

Programming skills and experience in the application of computational methods to genomic data are highly desirable. Applicants must possess good communication skills and be fluent in both spoken and written English. The ability to learn how to use new software and quickly become expert in its use, critical thinking, problem-solving abilities, and the ability to work semi-independently are required.

The NIH Intramural Research Program is on the Bethesda, Maryland campus and offers a wide array of training opportunities for scientists early in their careers. The funding for this position is stable and offers the trainee wide latitude in the design and pursuit of their research project. The successful candidate will have access to NHGRI's established and robust bioinformatics infrastructure, as well as a 'Top 500' high-performance computing resource available through NIH's Center for Information Technology (CIT).

Interested applicants should submit a curriculum vitae, a detailed letter of interest, and the names of three potential references to Dr. Baxevanis at andy@mail.nih.gov.

For more information, please visit https://irp.nih.gov/-pi/andy-baxevanis . The NIH is dedicated to building a diverse community in its training and employment programs.

"Baxevanis, Andy (NIH/NHGRI) [E]" <andy@mail.nih.gov>

## Norway FunctionalGenomics

Dear All,

Hi, we are still recruiting a postdoc in functional genomics in Atlantic salmon in Norway.

The main purpose of the post-doctoral position is to qualify for work in high-level scientific positions. The goal of this project is to reveal the functional impact of target structural variants on early development in Atlantic salmon using CRISPR-Cas9 and/or Tol2 transgenesis in embryo and/or cell lines. To achieve this goal, the recruited researcher/postdoc will collaborate with the ongoing Atlantic salmon genomics project team at CIGENE.

The candidate will: Participate in the selection process of targets from the candidate list design, develop and perform CRISPR experiments and Tol2 transgenesis of salmon embryos and/or cell lines investigate pheno-

type in Atlantic salmon embryo, skin and liver cell lines Illumina-based DNA, RNA sequencing in collaboration with bioinformatics researchers disseminate research in leading scientific journals in the field Work with other researchers, incuding PhD and master's students

Planned starting date is April 1st. 2022.

For detail and application, please see below. https://drive.google.com/file/d/-1dfd2vmxFldFSXsvUKVdVhcIMpSG82XNV/view Thank you very much,

Marie

– Marie SAITOU, Ph.D. Tenure-Track Principal Investigator, Centre of Integrative Genetics (CIGENE), Faculty of Biosciences, Norwegian University of Life Sciences https://sites.google.com/view/saitou-lab Marie Saitou <marie.saitou@nmbu.no>

## NTNU Norway QuantEvolution

Postdoctoral Research Fellow in Quantitative Evolutionary Ecology

We are looking for a postdoctoral researcher in quantitative evolutionary ecology to fill a three-year position available at the Centre for Biodiversity Dynamics, Department of Biology, NTNU, Norway. Closing date Dec 13th 2021.

The Centre for Biodiversity Dynamics (CBD) is a leading cross-disciplinary Centre of Excellence, with primary interests in population ecology, evolutionary biology and community dynamics. CBD works at the interface between biology and mathematical sciences and strives to apply cutting-edge theoretical and statistical frameworks to field data to resolve key questions in the contexts of both fundamental and applied science. Further information is available at http://www.ntnu.edu/cbd About the position This postdoctoral position represents an exciting opportunity to help lead advances at the interface of evolutionary quantitative genetics and statistical and movement ecology.

Wild populations experiencing locally deteriorating environmental conditions can in principle persist through phenotypic plasticity or micro-evolution, or by moving elsewhere. While these three mechanisms have each received considerable attention, we still know little about how they can act in combination, for example through micro-evolution of the degree of plasticity in seasonal movement.

The primary aims for the postdoctoral position are to apply advanced quantitative genetic analyses to a multi-year dataset from a wild bird population to estimate forms of plasticity and genetic variation in the occurrence of seasonal migration versus residence, specifically focusing on early life (i.e. pre-recruitment years). Achieving these objectives will require linking quantitative genetic animal model analyses with capture-mark-recapture analyses.

The post will suit a quantitative ecologist, evolutionary biologist or ecological statistician with interest in applying advanced statistical methods to quantify patterns, causes and consequences of phenotypic variation arising in wild populations. There will be scope for the post holder to innovate and develop particular aspects of the work programme.

The post is part of a research project funded by the Research Council of Norway (RCN). It is a three-year temporary position, which will advance the post holder's qualifications to work in senior academic positions.

The post holder will work with Professor Jane Reid and Dr Paul Acker at CBD, NTNU, with further support from statistician Associate Professor Stefanie Muff. This team can provide further training and support in the required analyses. The post holder will also work closely with a PhD student and three further postdoctoral researchers at CBD, and with the research team of Dr Francis Daunt, CEH, UK, utilizing the available field dataset on European shags in Scotland. The primary working language will be English.

Full details of requirements and application procedures are at: https://www.jobbnorge.no/en/available-jobs/job/215433/postdoctoral-research-fellow-in-quantitative-evolutionary-ecology Please contact Jane Reid (jane.m.reid@ntno.no) with any questions or for further information.

"Reid, Dr Jane M." <jane.reid@abdn.ac.uk>

## OhioStateU GeneFamilyEvolution

The Anderson lab at The Ohio State University (https://-/u.osu.edu/andersonlab/) is seeking a Postdoctoral Researcher to join our team. The researcher will work as part of a collaborative team to investigate the evolution of individual paralogs within a gene family in the human fungal pathogen, Candida albicans.

Qualifications: This work will require an understanding of general genetic and evolutionary concepts but applicants with diverse perspectives covering a range of biological approaches, including genetics and genomics, evolutionary biology, molecular biology, cell biology, microbiology, and bioinformatics, are encouraged to apply. Candidates should hold a Ph.D. in any of these biological/biomedical fields.

Work description: The experimental part of the project will require basic microbiology/molecular biology skills. Part of the work will also involve bioinformatics or large dataset analysis. The candidate is not required to have experience in all areas listed previously as we greatly value a learning mindset. Our lab is extremely collaborative with diversely skilled members who are willing to train people in these approaches.

Lab: We are an internationally diverse group of people representing all career stages (Faculty, Postdoc, PhD students, Research technicians, Undergraduate students). We highly encourage applicants from underrepresented groups to apply. Our group holds up the importance of diverse life experiences and viewpoints to strengthen the whole of our group. Please explore the lab website (https://u.osu.edu/andersonlab/) for a more complete description of our research group.

Timeline: The start date is flexible. We are seeking an individual for a minimum of a three-year time commitment and funding support exists for longer periods.

Contact: Please reach out to Dr. Matt Anderson (anderson.3196@osu.edu) with:

1. Your CV (including information for 2-3 referees)

2. A brief summary of your expertise and your interest/goals in pursuing a postdoc in our lab

Anna Mackey, B.S.

Lab Manager Anderson Lab Department of Microbiology The Ohio State University

496 W 12th Ave Riffe 711 Columbus, OH 43210

"Mackey, Anna I." <mackey.201@osu.edu>

## OxfordU VirusHostGenomics

We are seeking to hire a post-doc to investigate paired virus and host genomics at Oxford University.

Project description: The aim of the project is to use paired host-virus genomics to understand why patients respond differently to infections. We are sequencing host and virus genomes from large patient cohorts infected with HCV, HBV and HIV. These cohorts are very well characterised and many clinical phenotypes and biomarkers are measured on all individual. The aims of this study are (1) to identify host polymorphisms that drive evolution of the virus, (2) identify host and virus genetic polymorphisms that drive differences in clinical phenotypes and measured biomarkers independent of each other and (3) detect interactions between host and virus genetics that drive the differences in clinical phenotypes and measured biomarkers. The role can be focused on different aspects of the project depending on your interest and experience for instance on the host genomics and GWAS or on virus genomics, evolution and epidemiology. Depending on your experience you will be involved in development and implementation of new statistical approaches to look for interaction between host and pathogen genetic markers and associations (possibly nonlinear) with multivariate clinical outcomes.

Requirements: A PhD with a strong quantitative component, particularly population genetics, bioinformatics, computational biology, statistics or probabilistic machine learning, computer science or other relevant fields. Experience of working with large datasets is necessary. Computational skills to include experience of using statistical packages such as R, MATLAB or others. Experience of developing computational pipelines and analytical strategies for complex data sets, especially pathogens. Candidates must be able to express themselves in spoken as well as written English.

Desirable selection criteria: Experience of performing phylogenetics and phylogeographic analyses. An understanding of the genetics of infectious disease, in particular viral genomics. Understanding of concepts in genetics, in particular population genetics. Training in statistical modelling and inference. Understanding of Bayesian statistics. Low-level programming experience (for example, C++). Experience in processing and analysis of next generation sequencing data either DNA or RNA expression.

Instructions for the application: The application has to be made through the University of Oxford portal. The link is provided below: Application deadline: 6 January 2021, if position is not filled we will re-post the position.

Type of employment: Full-time 3 years (part-time and flexible working hours will be considered).

Link for the advert: https://bit.ly/315WBt6 For further information about the position please contact: Dr. Azim Ansari, ansari.azim@ndm.ox.ac.uk

Azim Ansari <azim.ansari@ndm.ox.ac.uk>

## Tuebingen AIandEarlyHominin Culture

The "Human and Machine Cognition" lab led by Dr. Charley M. Wu in collaboration with the "Tools and Culture among Early Hominins" lab and the ERC STONECULT project led Dr. Claudio Tennie invite applications for a Postdoc Research Fellow (m/f/d; E13 TV-L, 100%)

to study Cumulative Culture in AI. Our aim is to better understand the human capacity for cumulative culture by developing AI that can distill and transmit social information in a human-like manner. Key ingredients of human social learning we want to model in AI systems include: representational exchange between social and individual learning systems, compositionality of individual knowledge with social information, and the inference of causal structure from partial/failed solutions. Just as the ???cultural explosion??? launched the success of the human species, a similar capacity for cultural learning has the potential to unlock more robust, interpretable, and compositional forms of AI. Note that the exact topic and subtopics are flexible and will depend on the interests of the candidate. For inquiries, please contact: charley.wu[at]uni-tuebingen[dot]de

About the position: This interdisciplinary collaboration brings together a unique fusion of expertise, combining innovations in the computational modeling of human behavior and social learning (Dr. Charley Wu; hmc-lab.com), with ground-breaking comparative research into the emergence of culture in humans, hominins and great apes (Dr. Claudio Tennie; sites.google.com/view/claudiotennie/home).

The ideal candidate should have a strong computational and mathematical background, for instance, in machine learning, reinforcement learning, multi-agent simulations, cognitive modeling, or a related area. This position is particularly suited for promising researchers recently finished or about to finish their PhD in a relevant discipline, such as cognitive science, computer science, psychology, computational neuroscience, statistics, or biology. A PhD must be completed before the start of the position.

Candidates should have worked in or have a strong passion for studying cultural evolution, social learning, and cognitive science, with a general interest and capacity for interdisciplinary research. Please indicate in your application if you have prior experience with conducting human experiments, computational modeling, and machine learning, which are beneficial but not required. Skills in programming languages (e.g., Python, R, Matlab, Javascript, Java, etc.), developing online or VR experiments, writing (in English), and the ability to independently manage a project (of any type) should also be mentioned.

What we offer: The position is funded by the T??bingen AI Center, which is associated with University of T??bingen and is the highest ranked academic institution in artificial intelligence in the European Union. In addition, the position is also embedded in the Machine Learning excellence cluster and the Department of Early Prehistory and Quaternary Ecology. There are no formal teaching duties, allowing full flexibility for conducting research. There will be opportunities to mentor and work with PhD students working on related topics such as: structure learning in planning and search, developmental changes in exploration, inductive biases in compositional learning, resource rational adaptations in social learning strategies, and many more. The position is limited for 2 years.

About T??bingen: Tu??bingen is a scenic university town on the Neckar river in South-Western Germany. The quality of life is exceptionally high and the atmosphere is diverse, inclusive, and most locals speak English. Tu??bingen offers excellent research opportunities due to the University, four Max Planck institutes, the University Hospital, and Europe???s largest AI research consortium. You can find out more about Tu??bingen here: https://www.tuebingen.de/en/ How to apply: Please send a cover letter, a research statement describing your relevant interests (max 1 page), your CV, the names and email addresses of 2-3 referees, and unofficial copies of your University degrees as a single PDF to Charley Wu (charley.wu[at]uni-tuebingen[dot]de). If not included in your CV, please also include links to publicly available code examples (e.g., github, OSF, etc???). The university seeks to raise the number of women in research and teaching and therefore urges qualified women academics to apply for these positions. Equally qualified applicants with disabilities will be given preference. The employment will be carried out by the central administration of the University of T??bingen. Please submit your application by Dec 15th, 2021.

Charley Wu <charley.wu@uni-tuebingen.de>

## UAlabama EvolutionaryBiology

Corrected application link: https://careers.ua.edu/-jobs/post-doc-visiting-scientist-biological-sciences-bsc-514697-tuscaloosa-alabama-united-states Job Summary: Postdoctoral Research Associate positions available to persons with degrees and research interests in the biological sciences, with the goal of transitioning successful candidates into tenure-track positions at the University of Alabama's College of Arts & Sciences.

Additional Department Summary: The College of Arts & Sciences at the University of Alabama and the Department of Biological Sciences seeks applications for the Dean's Postdoctoral Research Associate positions. Successful candidates will hold terminal degrees and demonstrate a record of academic achievement in a biological sciences research area. The department will establish a series of structured merit-based evaluations with the goal of transitioning successful candidates into tenure-track positions. The Dean's Postdoctoral Research Associate positions have been established through a major College initiative begun in 2019 to promote an inclusive scholarly environment in which outstanding scholars support the advancement of diversity, equity, and inclusion in the College. We especially seek applications from candidates who would bring a diversity of backgrounds, experiences, and viewpoints to the department.

Required Minimum Qualifications: Applications are encouraged from excellent candidates with research interests in the biological sciences. Joint appointments across departments are possible. The minimum requirement at the time of the appointment is a Ph.D. or other terminal degree in a field of research in the biological sciences. Initial appointments are for one year, with renewal contingent upon demonstration of research productivity. Home departments will develop mentoring plans detailing benchmarks for possible transition of Postdoctoral Research Associates into tenure-track professorship positions. Standard university hiring practices will govern any process of transitioning Postdoctoral Research Associates into tenure-track professor positions. Review of applications will begin January 3, 2022.

The University of Alabama is an equal-opportunity employer (EOE), including an EOE of protected vets and individuals with disabilities.

Application Instructions: Please submit a cover letter, curriculum vitae, and a research statement to the online portal at: https://careers.ua.edu/jobs/post-doc-visiting-scientist-biological-sciences-bsc-514697-tuscaloosa-alabama-united-states Please also arrange for three reference letters to be submitted to Leslie Wiggins (ljwiggins@ua.edu)

Note to applicants: The College of Arts and Sciences is seeking to fill a total of two postdoctoral positions in any of its six natural science and mathematics departments (Biological Sciences, Chemistry & Biochemistry, Geography, Geology, Physics & Astronomy, and Mathematics).

Search Committee: Raymond White, Utz McKnight, Wanyun Shao, Alberto Perez-Huerta, Min Sun, Paul Rupar, Laura Reed, Patrick LeClair

Laura K Reed Associate Professor Biological Sciences The University of Alabama SEC 2330 (office) SEC 2317 (lab) Box 870344 Tuscaloosa, AL 35487 Ph. 205-348-1807 lreed1@ua.edu | http://flygxe.ua.edu laurakreed.gep@gmail.com

## UBasel EvolutionaryGenomics

Postdoc fellowship in Evolutionary Genomics The group of Plant Ecology and Evolution at the University of Basel, Switzerland (https://duw.unibas.ch/en/ecoevo/), is looking for a postdoc to lead the analyses of population genomics data sets in the fields of Plant Population Genetics and Plant Molecular Biology. Your position Our research projects generally focus on (a) genetic consequences of past range dynamics, (b) spatial analysis of genetic variation, (c) analysis of mutational load, (c) detecting genetic variants of climate adaptation, or more rarely (e) functional molecular analyses. Our group has recently sequenced the whole genome of individuals of many populations of North American Arabidopsis, and of a handful of Brassicaceae species differing in elevational distribution in the Swiss Alps. Therefore, population genomic data reflect a wide range of geographic, climatic and other clines. Your profile The fellowship is for applicants who have done a PhD or at least one postdoc in Evolutionary Genetics / Genomics.

We offer you The initial appointment is for one year; based on performance, the fellowship is renewable for up to six years. The University of Basel has generous resources for genomic analysis (scientific high- performance computing, data management, training and support). Furthermore, our Department of Environmental Sciences offers a stimulating environment, including a rich spectrum of research activities in life sciences

(ecological genomics, population genomics, evolutionary biology, plant ecology, physiology and molecular and cell biology). Finally, Basel is a mid-sized Swiss city, well connected and offering a broad range of cultural and recreational activities.

Application / Contact Motivated applicants should submit (1) a one-page letter that summarizes interests and relevant experience, (2) their CV, (3) copies of PhD and other relevant diploma transcripts, and (4) contact information of two references. We accept only online applications. Applications are welcome until the position is filled and will be reviewed starting January, 1, 2022. For more information, contact Yvonne Willi (yvonne.willi@unibas.ch)

Apply under:

https://jobs.unibas.ch/offene-stellen/postdoc-fellowship-in-evolutionary-genomics/0b24f563-4116-4958-b69c-e33597eb5782 Yvonne Willi <yvonne.willi@unibas.ch>

## UBuffalo MammalDevoEvo

POSTDOC - Mammal DevoEvo

Development of CRISPR genome editing in elephant, whale, and bat cells.

Applications are invited for a postdoctoral or research assistant position in the evolution of cancer resistance in large, long-lived species. Specifically, this position is for the establishment of new cell culture models to study the evolution of cancer resistance in elephants, whales, and bats including, but not limited to, CRISPR genome editing in cells from these species.

The position is in lab of Vincent Lynch in the Department of Biological Sciences at the University at Buffalo, SUNY. Our lab uses evolutionary genomics and comparative cell biology to investigate the genetic and molecular mechanisms that underlie the origins of cancer resistance and healthy aging in large bodied and long-lived species such as elephants, whales, bats, and tortoises.

Specific research involves comparative genomics to identify genetic changes that might underlie/contribute to these traits and comparative cell biology to characterize inferences from the comparative genomic analyses. The postdoc can also develop new research directions consistent with these projects, most importantly the development of CRISPR genome editing in primary cells from elephants, whales, and bats, and potentially other species. Specific skills needed for this position vary, but experience with cell culture and CRISPR is essential; Experience in generating iPS cells is preferred but not required. The postdoc will also receive guidance and support for career development, tailored to long-term goals including both academic non- academic careers.

The University at Buffalo, SUNY offers an exceptional environment for research and training in, with strong interaction among genomics research groups across schools and departments. The Department of Biological Sciences also offers numerous opportunities for collaboration.

Qualifications: - Ph.D. in biology or extensive experience with cell culture - Experience in cell culture - Experience with CRISPR genome editing - Experience in developing iPS cells a plus, but not required - Record of research productivity, including publications/preprints demonstrating skillsets

Application materials: - CV (preprints encouraged to demonstrate skillsets) - Brief description of past and future research interests - Contact information for three references, upon request

The University at Buffalo, SUNY is committed to active recruitment of a diverse Faculty, research support specials (including post-docs, research technitions, and research specialists), as well as a diverse student body. The University is an Affirmative Action/Equal Opportunity Employer of women, minorities, protected veterans and individuals with disabilities and encourages applications from these and other protected group members.

The position is open immediately until filled, with a flexible start date, and anticipated to last for three years. Applications, questions, and informal inquiries are welcome and directed to Vincent Lynch <vjlynch@buffalo.edu>.

Vincent J. Lynch, Ph.D. Associate Professor Department of Biological Sciences University at Buffalo, SUNY 551 Cooke Hall Buffalo NY, 14260

vjlynch@buffalo.edu <mailto:vjlynch@chicago.edu>

“These days the most useful thing we can do is to repudiate, and so we repudiate” - I. Turgenev, Fathers and Sons (1862)

“There is a grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one; and that whilst this planet has gone on cycling according to the fixed laws of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.” -C. Darwin, 1859

Vincent Lynch <vjlynch@buffalo.edu>

## UCalifornia LosAngeles AdmixturePopulationGenetics

Postdoctoral research positions at UCLA in human population genomics, computational medicine, and statistical genetics

Two postdoctoral research positions are available at UCLA in the newly established PRS Center for Admixed Populations and Health Equity (CAPE). CAPE is one of the 7 NIH center sites aimed at improving how polygenic risk scores can be used to predict phenotypes in diverse communities. Investigators within CAPE aim to develop methods for equitable genetic predictors of a person's risk for diseases irrespective of their genetic ancestry background.

Researchers within CAPE will have access to a wide range of genomic data of >230,000 individuals of admixed ancestry across 4 traditional epidemiological cohort studies and 4 large EHR-linked biobanks in diverse urban settings. The successful candidate will have substantial input in the specific nature of the research project within the broader goals of CAPE and will be able to work synergistically with the CAPE investigators at UCLA (Pasaniuc, Olde Loohuis, Lohmueller, Sankararaman, Pajukanta, Eskin, Freimer); Univ of Colorado (Lange, Gignoux); and Mount Sinai Health System in New York (Kenny, Belbin) as well as with the other 5 center sites of the NIH PRS diversity consortium. CAPE is embedded within a vibrant research community in computational, population and medical genetics including the Institute of Precision Health and the department of Computational Medicine at UCLA.

The position is available for 1 year and may be continued for an additional year contingent on successful progress and available funding. Salary will be competitive, starting at over $65,000, commensurate with experience. Further, 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 computer science, biology, genetics, computer science, bioinformatics, statistics, biostatistics, computational biology, or a related field. As this is a computational position, proficiency in programming in python, R, Perl, or Python, and shell scripting is essential. Programming experience in C/C++ is highly desired. 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. The position is expected to start as soon as possible with specific dates and salary 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 Bogdan Pasaniuc at pasaniuc@ucla.edu. Please put "Postdoc position" in the subject line. Informal inquiries are welcomed.

The University of California is an equal opportunity/affirmative action employer.

More information can be found at: - https://www.genome.gov/news/news-release/nih-awards-38-million-dollars-to-improve-utility-of-polygenic-risk-scores-in-diverse-populations . - https://www.uclahealth.org/news/ucla-health-receives-4-8m-nih-grant-to-improve-genetic-estimates-of-disease-risk-in-diverse-populations - https://www.uclahealth.org/precision-health/ - https://compmed.ucla.edu/ Kirk Lohmueller <klohmueller@g.ucla.edu>

## UCalifornia LosAngeles ConservationBiology

Postdoc: UCLA_La_Kretz_Center_for California_Conservation_Science

The UCLA La Kretz Center for California Conservation Science < http://www.environment.ucla.edu/lakretz/ > invites applications for its 2022 Postdoctoral Fellowship in California Conservation Science. We seek one or more postdoctoral scholars who conducts innovative biological research to work with the La Kretz Center and partner agencies to achieve outcomes that will direct and lead California conservation efforts. Candidates may work in any discipline that provides the scientific underpinnings for the preservation, protection, management, or restoration of at-risk species, environments, or ecological communities in California. Our current research directions include, but are not limited to:

(i) conservation science at the urban/wildland interface, particularly invasions at the urban/wildland interface, behavioral attributes of introduced species, and the

ecological and evolutionary effects of urbanization; (ii) urban biodiversity, ecosystems, and ecosystem services with an emphasis on comparative assessments of urban biodiversity (phylogenetic, richness, genetic diversity, etc.), evaluations of ecosystem services in the urban environment, and ecosystem ecology; (iii) California conservation science that leverages networks of protected areas to answer questions about speciation, adaptive evolution, and species delimitation or uses these lands to understand the impact(s) of disturbance on species ecology, conservation, or behavior; and (iv) The California Conservation Genomics Project (CCGP) < https://-www.ccgproject.org >, a large, multi-campus initiative led by the La Kretz Center that is delivering genomic resources to California to enhance species and habitat management.

We seek Fellows whose research overlaps with a minimum of one UCLA faculty member who is a La Kretz affiliate < https://www.ioes.ucla.edu/lakretz/people/-?ioesrole=affiliates > and one agency partner in California (see below). The Fellow is expected to work closely with their identified UCLA faculty mentor and agency partner(s); projects that have established their team members tend to be favored by our review board. Our current list of possible agency partners, and relevant contacts individuals includes, but is not limited to:

The Nature Conservancy: Sophie Parker, sophie_parker@tnc.org (restoration; urban conservation; invasive species)

Natural History Museum of LA County: Jann Vendetti, jvendett@nhm.org (mollusk ecology and evolution; species natural history)

US Geological Survey: Robert Fisher, rfisher@usgs.gov (applied conservation; biodiversity; ecology and evolution)

US Bureau of Land Management: Mike Westphal, mwestpha@blm.gov (applied conservation, climate change)

US Fish and Wildlife Service: Cat Darst, cat_darst@fws.gov (endangered species management)

Natural Communities Coalition: James Sulentich, jsulentich@occonservation.org (protection and recovery of sensitive species)

National Park Service: Katy Delaney, katy_delaney@nps.gov (amphibian and avian ecology, evolution, and conservation)

National Park Service: Seth Riley, seth_riley@nps.gov (mammalian ecology, evolution, and conservation)

Department of Defense: Robert Lovich, robert.lovich@navy.mil (conservation on Dept. of Defense lands)

The La Kretz Fellowship is for two years, subject to review after the first year. The target start date is September 2022, and is flexible. The position offers full benefits, and a research/travel allowance of $7,500. Candidates who have recently completed their Ph.D. or will have completed it by August 2022 are encouraged to apply.

To apply, please send applications to lakretz@ioes.ucla.edu as a single PDF file that includes (i) a cover letter, (ii) your CV, (iii) a research and management accomplishments statement (maximum two pages), (iv) a project proposal that includes potential La Kretz affiliates and agency partners of interest (maximum three pages, including figures and references), and (v) two of your relevant publications. We also ask that you have (vi) two letters of reference sent, one of which must be from your Ph.D. advisor. Please arrange to have reference letters emailed to the same address with the subject line "La Kretz Postdoc letter for (your last name)". The deadline for completed applications is December 19, 2021. Please e-mail questions to Brad Shaffer, Director of the La Kretz Center, at brad.shaffer@ucla.edu.

Gary Bucciarelli <garyb@ucla.edu>

## UCalifornia SantaCruz NatlParkEnvironmentalDNA

POSTDOC OPPORTUNITY

University of California Santa Cruz Would you like to help study environmental DNA for NPS?

- Monitor invasive species

- Do biodiversity inventories

- Develop new techniques for molecular monitoring of communities and populations

- Connect with diverse University of California researchers and managers at National Parks around the country

- Be part of the UCSC Paleogenomics Laboratory

Seeking applicants with wet lab, bioinformatics, writing experience, and strong communication skills

$55k-$60k starting salary – Open until filled

Send a cover letter and names of two references to Rachel

Meyer at uc.caledna@gmail.com

Rachel Meyer <rameyer@ucsc.edu>

## UCBerkeley Genomics

Postdoc:UCBerkeley.Genomics

Postdoctoral position on the evolution and genetics of adapatation, speciation, and extreme life-history traits in Pacific Ocean Rockfishes. This work will follow up on our recently published work "Origins and evolution of extreme life span in Pacific Ocean rockfishes" https://www.science.org/doi/10.1126/science.abg5332. A fully funded multi-year postdoctoral position is available (initial 12-month appointment). Start date is flexible within the next 6-12mo.

The Sudmant Lab at UC Berkeley is seaking a postdoc to work on the evolution of Pacific Ocean Rockfishes using genome assembly and population genetic sampling data from several species pairs. More than 120 different species of Rockfishes are found throughout the northeast and northwest Pacific Ocean and they are one of the fastest diversifying clades of rayfinned fishes. Remarkably rockfishes exhibit life spans ranging from 11 years (Sebastes minor) to >200 years (rougheye rockfish, Sebastes aleutianus). Rockfishes are thus distinctive in that while some species are among the longest-lived vertebrates known to exist, life span can widely range even among closely related taxa.

The candidate will help lead a multi-year fully funded project to study the genetics of adapatation, speciation, and extreme life-history traits in several different recently diverged rockfish species pairs. The project is part of an international collaborative effort with the Owens' Lab at the University of Victoria and Wes Larson's Group at NOAA in Alaska and includes ancient rockfish genomic data being generated in collaboration with Courtney Hofman at the University of Oklahoma and Catherine West at Boston University. The candidate should have experiencee in genetics, genomics, and using computational approaches to study genetic diversity and evolution. Our lab philosophy is firmly based on the premise that science should be fun, inclusive, collaborative, and open.

Required qualifications: Ph.D. or equivalent in genetics, genomics, biology, computer science or related fields and demonstrated record of productivity and publications. Experience with either generating or analyzing large-scale genomic data.

Please contact Peter with your CV and a brief overview of your interests. Please be prepared to provide scientific references (e.g. advisor / thesis committee members). The position is open until filled with an anticipated start date in mid-2021

Peter Sudmant Assistant Professor Department of Integrative Biology University of California, Berkeleyhttps://www.sudmantlab.orgpsudmant@berkeley.edu Peter Sudmant <psudmant@berkeley.edu>

## UConnecticut ComputationalGenomics

Postdoctoral Scholar - Computational Genomics - Deep Learning for Genome Annotation

The Plant Computational Genomics laboratory at the University of Connecticut (Storrs, CT) has an opening for a Postdoctoral Scholar. This individual will take a lead role in the development of EASEL (Efficient, Accurate, Scalable Eukaryotic modeLs), an integrated and accessible deep learning framework to improve the annotation of eukaryotic genomes. This software will provide an efficient and flexible approach, encompassing the full workflow from repeat identification through gene model annotation. EASEL will improve the accuracy of evidence-based and ab initio-derived gene models for organisms with limited or extensive external genomic evidence. The final product will be implemented as stand-alone software, within open-source community platforms, and compatible with HPC systems.

The successful candidate will work as part of an interdisciplinary team. They will also work closely with existing genome assembly and annotation projects that represent tremendous organismal diversity. EASEL will be integrated into large-scale international efforts to annotate genomes. As such, the scholar will provide high quality genome annotations for a large network of collaborators through the development cycle. The candidate should have experience with genomic/transcriptomic data, machine learning, and software development. Experience with genome annotation is ideal. The successful candidate will also be involved in training end users and leading publications.

The qualified applicant will have a PhD degree in Bioinformatics, Evolutionary Biology, Computational Biology, Genetics, or a related field. Biology/Bioinformatics

experience is essential and previous experience with software development is desired. The applicant should have experience with Linux/Unix, scripting languages (Python), R, statistics, and machine learning. The position is renewable after the first year, for up to 2.5 years. The successful candidate may be able to start work remotely.

The Plant Computational Genomics Lab (http://-plantcompgenomics.com/) is part of the Department of Ecology and Evolutionary Biology and is closely linked with the Institute for Systems Genomics. Our lab is highly collaborative, multi-disciplinary, and inclusive. Diversity, creativity, integrity, and ambition are values we affirm. We are committed to open and inclusive science. This includes transparency in data acquisition, analysis, and code.

Interested applicants, Please send the following THREE documents: cover letter, research statement (~1 page), and CV to: Jill Wegrzyn at jill.wegrzyn@uconn.edu

Applications will be accepted until the position is filled. Location: University of Connecticut, Storrs, CT, USA Start Date: ASAP Duration: Full-time

jill.wegrzyn@uconn.edu

## UConnecticut SticklebackImmunityEvolution

University of Connecticut: Postdoctoral researcher in evolutionary genomics and transcriptomics

A postdoctoral research position is available in Dr. Daniel Bolnick's research group (https://-bolnicklab.wordpress.com), in the Department of Ecology and Evolution at the University of Connecticut. The research group studies the evolution of species interactions, adaptation, and trait variation, merging expertise in ecology, genetics, and immunology, with stickleback-cestode interactions as a dominant focus. In recent years we have generated multiple large genomic and transcriptomic datasets concerning gene expression responses to cestode infection, both stickleback and cestode population differentiation, and QTL mapping. We seek an individual with experience in bioinformatics relevant to population genetic and/or transcriptomic analyses of genetic data, to contribute to analyses and publications of existing data. Opportunities exist to pursue side-projects along with the core project task.

Tasks: The postdoctoral researcher will conduct analyses of existing population genomic and transcriptomic datasets and publish peer-reviewed articles reporting results arising from these data.

Duration: The position is currently funded for one year, with extensions subject to availability of grant funds. The preferred start date is early January 2022, with some flexiblity

Qualifications: Applicants must have a PhD in evolutionary biology, genetics, computational biology, or a closely related field. Prior experience with analyses of genomic or transcriptomic data is essential. Expertise in population genetics is strongly preferred. Previous research experience and publications should demonstrate a commitment to basic research, good work ethic, computational skills, organizational ability, and publication productivity.

Applications should electronically submit a single pdf file with: 1) a Coverletter outlining research achievements, skills, and goals, 2) a copy of the applicant's CV, 3) copies of up to three publications or submitted manuscripts 4) A list of three references, with contact information (email, telephone, and mailing address). We will request letters directly from these references, after identifying top candidates. Please notify the references that they may be contacted by Dr. Bolnick for recommendations.

An initial application should be emailed to Dr. Daniel Bolnick ( daniel.bolnick@uconn.edu ). Include the subject line "Evolutionary bioinformatics Postdoc: <YOUR NAME>". Applications are accepted immediately, and will be reviewed until the position is filled.

For questions about this position, please email Dr. Bolnick (daniel.bolnick@uconn.edu). For information about the Bolnick Lab visit the lab website (https://bolnicklab.wordpress.com ), lab photostream (https://www.flickr.com/photos/98765823@N08/-albums), and Dr. Bolnick's Google Scholar page (https://scholar.google.com/citations?user=-cfwxm0AAAAAJ&hl=en ).

The University of Connecticut is an Equal Opportunity Employer. Applicants with questions about disability services can privately discuss their application with the University of Connecticut Disability Services Office. A statement of BolnickLab values can be found here: https://bolnicklab.wordpress.com/2015/10/01/-labvalues/ Dr. Daniel I. Bolnick Editor-In-Chief, The American Naturalist Professor, Ecology and Evolutionary Biology & Institute for Systems Genomics

daniel.bolnick@uconn.edu

MAIL TO: Department of Ecology and Evolutionary

Biology 75 N. Eagleville Road, Unit 3043 University of Connecticut Storrs, CT 06269-3043, USA

Office Phone: 860-486-3156 Lab Phone: 860-486-3937 Cell Phone: 512-809-6217

Office:PBB 305C Lab: PBB 317&319; ATW 232, 234, 236 Lab website: https://bolnicklab.wordpress.com "Bolnick, Daniel" <daniel.bolnick@uconn.edu>

## UExeter HostParasiteEvol

Postdoc position examining why viruses can infect some hosts and not others, testing the role pathogen genetics (relatedness) and ecology (interactions between microbes) play in pathogen emergence using an insect virus model system. Based at the University of Exeter's Cornwall campus. Full info via link below.

https://jobs.exeter.ac.uk/hrpr_webrecruitment/wrd/run/ETREC107GF.open?VACANCY_ID=312578XkIR&WVID=3817591jNg&LANG=USA Best regards,

Ben

– Ben Longdon University of Exeter Penryn Campus Cornwall TR10 9FE https://benlongdon.com/ "Longdon, Ben" <B.Longdon2@exeter.ac.uk>

## UFlorida NeuroEvoGenoCteno

Whitney Laboratory for Marine Bioscience University of Florida

A postdoctoral research position is currently available in the laboratory of Joseph Ryan, Ph.D. at the Whitney Laboratory for Marine Bioscience in St. Augustine Florida. The Ryan Laboratory applies bioinformatic, phylogenetic, and statistical techniques to genomic and single-cell transcriptomic data to address fundamental questions in animal evolution. The project is a collaboration with a neuroscience laboratory (Strother) and development laboratory (Martindale) to understand neurogenesis and neural circuits in ctenophores (comb jellies) in order to better understand the early evolution of neural circuits.

The project involves analyzing single-cell gene expression profiles across ctenophore development to understand how ctenophore neural circuits are constructed and function. In addition, the project involves applying phylogenetics and machine-learning techniques to understand the gene regulatory networks underlying ancestral neurogenesis programs and how neural circuits functioned early in animal evolution.

Candidates should have or be close to obtaining a Ph.D. or equivalent degree.

More info here: http://ryanlab.whitney.ufl.edu/hiring/ Apply here: http://ryanlab.whitney.ufl.edu/hiring/-apply We will begin reviewing applications on December 1, 2021.

Questions can be directed to joseph.ryan@whitney.ufl.edu

"Ryan,Joseph" <joseph.ryan@whitney.ufl.edu>

## UFreeState SouthAfrica PopGenomics

University of the Free State (South Africa). Population Genetics/Population Genomics

The University of the Free State (UFS) invites applications from suitably qualified candidates for a postdoctoral fellowship in the Department of Genetics. Candidates with a proved track record in Conservation Genetics, with a research interest in Conservation Genomics, are encouraged to apply. Current research in the unit is focussed on hybridization, diversity in fragmented populations and geographic patterns of genetic diversity (and the associated adaptive significance of these processes). Species of interest include ungulates, mussels and zebrafish.

https://www.ufs.ac.za/natagri/departments-and-divisions/genetics-home/research-areas/conservation-genetics The fellowship is awarded on a competitive basis, taking into account the applicants' academic achievements, publication outputs and research potential, as well as the relevance of prior experience and expertise. The fellowship is available for a period of one year, renewable for up to three years subject to satisfactory performance.

Eligibility criteria: The fellowship is open to all South African and foreign nationals for full-time research at the UFS. Graduated with a PhD degree in a relevant discipline within the last five years Successful applicants

may not hold full-time salaried employment during the fellowship Successful applicants must be able to relocate to the UFS for the duration of the fellowship. This is a residential fellowship: the successful applicant is required to spend 80% of her/his postdoctoral period at the UFS.

The successful candidate will be required to: Conduct innovative research in Conservation Genetics / Genomics. Research area should be closely aligned with current focus areas and taxa of interest in the research group. The candidate will also be required to devote a portion of research time (˜25%) to projects using the zebrafish facility in the Department. Author/co-author at least three (3) publication outputs per year in the form of DHET-accredited scholarly journal articles or books/chapters in books. The renewal of the fellowship beyond the first year depends on satisfactory performance and the submission of an annual progress report. Initiate projects and seek funding for them. Provide assistance to students and staff in the Department in the analysis of Genomic data. Register and reside as postdoctoral research fellow at the UFS and participate in relevant activities of the School of Postgraduate Studies and the Directorate of Research.

Value of the fellowship: ZAR 220,000 annual fellowship ZAR 30,000 additional research expenses fund

To apply, please email the following documentation by 30 November 2021 to groblerjp@ufs.ac.za

Motivation letter, including a 1-2 page outline of relevant expertise and experience. Full CV including a list of research publications, conference papers and other scholarly outputs demonstrating relevant experience in the field of Conservation Genetics. Full transcripts of academic record and copy of doctoral degree certificate. Copy of ID document (or copy of passport in the case of foreign applicants). Contact details of two academic referees who have taught/supervised the candidate. Closing date: 30 November 2021

Prof. Paul Grobler

Professor, Department of Genetics University of the Free State Bloemfontein, South Africa

Paul Grobler <groblerjp@ufs.ac.za>

## UGuelph Benthic eDNA

Postdoc/Research Associate position,Hajibabaei lab, Centre for Biodiversity Genomics & Department of Integrative Biology, University of Guelph, Canada.

Ecological genomics of benthic communities to assess watershed health across Canada

Postdoctoral fellow/Research Associate: A 3-year position is available as the main project coordinator and data analyst of STREAM project (www.stream-DNA.com) to conduct environmental DNA (bulk samples, water) analysis of benthic communities in Canadian watersheds.

The position involves design and coordination of sampling, genomics and bioinformatics analysis with emphasis on ecological/environmental analysis using Illumina MiSeq/NovaSeq data as well as data integration and visualization. A background in molecular ecology/evolution, familiarity with high throughput sequence analysis, ability to work at the command-line in a Linux environment, knowledge of a scripting language (ex. Python) and R is required. Experience with large-scale multi-investigator project/data management and outreach activities is an asset.

Preferred starting date: February-March 2022.

Guelph is located about one hour from Toronto. Because of its relatively low crime rates, clean environment and generally high standard of living,Guelph is consistently rated as one of Canada's best places to live.

The University of Guelph is committed to equity in its policies, practices, and programs, supports diversity in its teaching, learning and work environments, and ensures that applications for members of underrepresented groups are seriously considered under its employment equity policy. All qualified individuals who would contribute to the further diversification of our University community are encouraged to apply.

Please send a copy of your CV, a cover letter and names/contact information for three references to: Mehrdad Hajibabaei (mhajibab@uoguelph.ca). Please indicate the title of the position you are applying for in the subject line of your email. We will start reviewing applications on December 01, 2021.

Mehrdad Hajibabaei, PhD Associate Professor Centre for Biodiversity Genomics & Dept. of Integrative Biology University of Guelph Guelph, ON N1G 2W1 Canada

Phone: 519-824-4120 x52487 Fax: 519-824-5703 Email: mhajibab@uoguelph.ca http://hajibabaei.ibarcode.org/
Mehrdad Hajibabaei <mhajibab@uoguelph.ca>

## UIllinois Chicago EvolutionaryBiology

Title: Postdoctoral Research Associate- Bridge to Faculty- Department of Biological Sciences (Job ID #157208)

Department: LAS/ Biological Sciences

Category: Postdoc Res Assoc

Location: Chicago

Close Date: February 4, 2022

Description: The Department of Biological Sciences in the College of Liberal Arts and Sciences at the University of Illinois at Chicago (UIC) invites applications for a Bridges to the Faculty Postdoctoral Research Associate beginning August 16, 2022. Applicants may work in any area of biology, including but not limited to: molecular biology, cell biology, developmental biology, biochemistry, neuroscience, ecology, evolutionary biology, environmental biology, and computational biology, as well as research in the learning of biology at the college level.

Bridge to the Faculty is a UIC postdoctoral program designed to recruit underrepresented scholars with the goal of transitioning them to tenure-track faculty members after two years (https://diversity.uic.edu/engagement/-bridge-to-the-faculty/). This recruitment initiative aims to attract and retain promising scholars to UIC, as well as diversify our faculty to better serve the cultural wealth of our students, our community, and the nation. UIC is a comprehensive, urban, public, Research 1 university with state-of-the-art research facilities and a national leader among public higher education institutions in providing access to underrepresented students. We are among the nation's top five most diverse campuses and are designated as a Minority Serving Institution (MSI), Asian American and Native American Pacific Islander-Serving Institution (AANAPISI), and Hispanic Serving Institution (HSI). Seehttps://oae.uic.edu/resources/-diversity-resources/for more about Diversity at UIC.

Duties: The successful candidate will spend two years working in a lab in the Department of Biological Sciences that is closely aligned to their research interests, following a detailed mentoring plan. They are expected to develop a successful independent research program that is competitive for federal grants, and that will allow them to transition to a tenure track faculty position in the Department after two-years. The faculty position will include a competitive start-up package. Although there are no formal teaching duties, the fellow is expected to be involved in mentoring undergraduate research, as well as provide occasional guest lectures to an existing course.

Qualifications: Candidates must have received a Ph.D. in Biology or a closely related field no earlier than August 16, 2018 and no later than August 16, 2022. Although prior postdoctoral experience is preferred, all eligible candidates will be evaluated.

Applicants should submit an online application and additional materials tohttps://jobs.uic.eduby February 4, 2022 . Applications must include a cover letter and 1) a research plan, 2) statement abouttheir past, present, and future contributions to promoting equity, inclusion, and diversity in their professional career, 3) a curriculum vitae, and 4) the names and contact information of at least three references. The research plan does not require a defined faculty sponsor but should include short- and long-term research interests so that a potential mentor can be identified. Questions about this position can be sent to Alexander Shingleton (ashingle@uic.edu) or Miquel Gonzalez-Meler (mmeler@uic.edu). Review of applications will begin 1/16/2022 and will continue until the position is filled.

Final authorization of the position is subject to availability of funding.

The University of Illinois at Chicago 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.

The University of Illinois System requires candidates selected for hire to disclose any documented finding of sexual misconduct or sexual harassment and to authorize inquiries to current and former employers regarding findings of sexual misconduct or sexual harassment. For more information, visit https://www.hr.uillinois.edu/cms/-One.aspx?portalId=4292&pageId=1411899 Jacquelyn DeLaurentis Human Resource Associate Department of

Biological Sciences P:312)996 – 2213—$F$ : (312)413 –
3277$E$ : $jdelaur@uic.edu$—$W$ : $bios.uic.edu$

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## UKansas GenomicsFellowship

Center for Genomics Postdoctoral Fellowship at the University of Kansas

The Center for Genomics at the University of Kansas invites applications for a postdoctoral fellowship in any area of genomics. The fellow will receive a competitive salary, benefits and a research and travel allowance. We encourage fellows to propose an original research project that is related to, but not part of a KU Center for Genomics mentor's normal research program. Center affiliated faculty span several departments and units including Molecular Biosciences, Ecology and Evolutionary Biology, Anthropology, Engineering, Computer Science, Exercise Physiology and the Life Span Institute. Fellow applicants should therefore develop their own research program with guidance from Center for Genomics faculty (https://genomics.ku.edu/genomics-members). We strongly recommend that you contact the faculty member mentor(s) to work out potential details in advance of application materials being submitted.

Fellows will be responsible for: a) Conducting cutting edge research in genomics with Center-affiliated faculty, b) presenting research at conferences and publishing findings, c) applying for additional external funding (NIH NRSA, NSF Postdoc, private foundations), d) presenting research during our postdoctoral seminar series, e) writing an annual progress report, and f) helping to plan center activities.

The successful candidate should have experience in genomics research, but further growth in genomics-related skills should be part of the proposed project. Applicants will be assessed based on preparation, the proposed project, the candidate's ability to span disciplines, and the likelihood of improving the genomics community at KU (including DEIB and outreach efforts, https://odst.ku.edu/).

For more information, visit: https://genomics.ku.edu/ku-center-genomics-postdoctoral-fellowship. To apply, visit: http://www.employment.ku.edu/staff/20341BR. Applications include the online application materials, a cover letter (see instructions - this should include some background, the proposed project, efforts in diversity, equity and inclusion, among other things), a CV and contact information for 3 referees. Applications are due February 1st, 2022 with a flexible start date of August 2022. Direct inquiries to Rob Unckless at KUCGPostdoc@ku.edu.

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: Director of the Office of Civil Rights and Title IX, civilrights@ku.edu, Room 1082, Dole Human Development Center, 1000 Sunnyside Avenue, 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@ku.edu

## UKentucky Phylogenetics PopulationGenetics

first day of employment, the second vaccination (if applicable) must be completed following the vaccination recommended schedule to be considered fully vaccinated.

Katie Everson <kmev228@g.uky.edu>

## ULiverpool EvolutionaryGenomics

Dear all,

I'm looking for a posdoctoral researcher with an interest in transposable elements and genomics; I'm happy to train the right person in bioinformatics. The post is available for 2 years, with possibility of an extension. In addition to working in a collegial department, Liverpool is a lively city that is economical to live in.

Please note the deadline (Nov 10); and do get in touch if you have any questions.

Best wishes, Andrea Betancourt

https://my.corehr.com/pls/ulivrecruit/erq_jobspec_version_4.display_form?p_company=1&p_internal_external=E&p_display_in_iris
N&p_process_type=&p_applicant_no=&p_form_profile_detail=&p_display_apply_ind=Y&p_refresh_search=Y&p_recruitment_id=
035446 Postdoctoral Research Associate Grade 7 Evolution, Ecology & Behaviour 035446 34,805 - 40,322 pa
10-Nov-2021 23:30 We are seeking an evolutionary biologist with a background or interest in genomic analysis and/or population genetics to work on an ERC-funded project. The goal is to understand the movement of mobile elements among eukaryotic hosts. Using Drosophila as a model, we will work to understand how transposable element invade new hosts, and how their hosts evolve in response. Your primary responsibility will be bioinformatics analyses for this project.

As well as a PhD in a relevant area, you should have an interest in the topic (transposable elements, host-parasite coevolution, or genomic conflict), and in genomic analysis. You will also have opportunities to develop your career, including training in genomic analysis, opportunities to apply for further funding, and to participate in conferences and pedagogical training. You will also benefit from world-class genomic facilities at Liverpool. The post is available for 2 years, with possibility of an extension.

"Betancourt, Andrea" <A.Betancourt@liverpool.ac.uk>

## ULiverpool ModellingSpeciesDistributions

Postdoctoral Research Associate - Environmental Modelling of Species Distributions in Holocene Egypt and the Wider Sahelo-Saharan Region

Department of Evolution, Ecology & Behaviour, University of Liverpool 35,327 - 40,928 pa Deadline for applications: 03-Dec-2021 23:30

Applications are invited for an ecological modeller to join the cross-disciplinary project BEAST ('Biodiversity in Egyptian Archaeology during Societal Transitions'). BEAST is a collaboration between ecologists and archaeologists/Egyptologists aiming to understand interactions between climate, animal populations and society in Holocene Northeast Africa, with a particular focus on predynastic and pharaonic Egypt. You will model the relationship between animal populations in space and time, and changes in the climate and human ecology. This will form the basis for your contribution to a broader analysis of drivers of extinction risk, societal change and

historical events. BEAST is funded by the Leverhulme Trust and brings together the University of Liverpool (where this position is based within the Department of Evolution, Ecology and Behaviour), the Leverhulme Centre for Anthropocene Biodiversity at the University of York, and the American University in Cairo. You should have (or be about to obtain) a PhD in a relevant area and have robust experience related to modelling of species distributions and/or environmental change. Established interest in, and knowledge of historical climates, ecosystems and archaeology is advantageous. You must be able to work independently but also have the flexibility necessary to work as part of a multi-disciplinary team. The position is available for 36 months with an expected start date 1 April 2022 (negotiable). Flexible working is possible, subject to logistical constraints.

For full details and to apply online, please visit: https://recruit.liverpool.ac.uk For further information or to discuss the post informally, please contact Dr Jakob Bro-Jorgensen (bro@liv.ac.uk).

Jakob Bro-Jørgensen PhD (UCL), MSc & BSc (Copenhagen) Senior Lecturer

Mammalian Behaviour & Evolution Group Department of Evolution, Ecology & Behaviour Institute of Infection, Veterinary and Ecological Sciences University of Liverpool United Kingdom

T: +44 (0)151 794 6009 M: +44 (0)794 233 7360 E:bro@liverpool.ac.uk W:https://www.liverpool.ac.uk/integrative-biology/staff/jakob-bro-jorgensen "Bro-Jorgensen, Jakob" <J.Bro-Jorgensen@liverpool.ac.uk>

## ULyon
## AnimalMitochondrialGenomics

We are opening a two year post-doc position at the Universitï¿½ de Lyon, France.

The postdoctoral researcher will join the ANR MINIGAN project which aims to study the causes and consequences of conflicts between the mitochondrial and nuclear genomes on sexual reproduction in a hermaphroditic gastropod. Recently, the MINIGAN consortium discovered individuals in the freshwater gastropod Physa acuta with a highly divergent mitochondrial genome associated with male sterility. These male-sterile individuals constitute, together with hermaphroditic individuals, natural gynodioecious populations (coexistence of hermaphroditic individuals and only female individuals). The postdoctoral fellow will be in charge of the acquisition and comparative analysis of several hundred mitochondrial genomes from natural populations, in order to better understand the diversity, distribution and evolutionary origin of sterilizing mitochondrial genomes. He/she will also use a transcriptomic approach to characterize the functional changes associated with male sterility.

More information here: https://bit.ly/3b5nO0z Regards, – Tristan Lefï¿½bure

LEHNA, Univ Lyon1, CNRS < https://umr5023.univ-lyon1.fr >

Tristan Lefebure <tristan.lefebure@univ-lyon1.fr> Tristan Lefebure <tristan.lefebure@univ-lyon1.fr>

## UMainz
## EvolutonarySingleCellGenomics

The Institute of Organismic and Molecular Evolution at the University of Mainz, Germany, invites applications for a Postdoc position (m/f/d) in evolutionary single-cell genomics (Salary level TV-L E13, 100%)

in the group of Evolutionary Plant Science and Biotic Interactions, headed by Prof Shuqing Xu. The successful candidate may start on the 1st of April 2022. The salary will initially be provided for three years, with the

possibility of extension for another three years. Supported by other group members, the candidate will work on the evolution of gene functions and regulations at cellular level using use the state-of-the-art single-cell genomic tools. During the project, the candidate will mature his/her scientific skills and develop independence in project planning and management skills. The candidate is encouraged to apply for additional third-party funding to establish his/her own subgroup.

Requirements: We are looking for a highly motivated researcher with a doctoral degree, or an equivalent thereof, in biology, evolutionary genetics, bioinformatics or computer science. The candidate is expected to design, conduct and organize the projects independently. Experience in analysing a large amount of next-generation sequencing data, in particular, single-cell sequencing and/or comparative genomics data, with a high degree of independence. A training background in bioinformatics, evolutionary genetics and single-cell sequencing is preferred. Applicants must demonstrate experience in statistics and genomics. Experience with molecular biology, epigenetics and computational modelling are a plus. Our group consists of people of various nationalities and teamwork is essential for all projects in the group. Therefore, excellent communication skills, as well as proficiency in spoken and written English, are expected. Good knowledge of German is a plus.

Excellent infrastructure and work conditions are available at the University of Mainz. The working language of the lab is English. For further information, please contact shuqing.xu@uni-mainz.de.

The University of Mainz hosts many excellent scientific institutions (http://www.uni-mainz.de/eng/), and Mainz is a historic city located on the Rhine River with many students and a rich social and cultural life.

Applications must be in English and include:

(1) a motivation letter stating the research interests with reference to the stated requirements in no more than two pages, (2) a detailed CV including academic and extracurricular achievements, as well as details of all research experience, (3) an abstract of the PhD thesis, and (4) contact details of at least two referees.

Applicants should send their documents in one single PDF file to Prof Shuqing Xu (shuqing.xu@uni-mainz.de) with the subject line “Evolutionary Single-cell Genomics Postdoc Position - Your Name”. The application review will commence on 31st December 2021. The position will remain open until filled.

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

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

## UmeaU
## EvolutionAntibioticResistance

Postdoc position in data-driven antimicrobial-resistance research

We are looking for a postdoctoral researcher to tackle a project in antimicrobial-resistance research. The postdoc will based primarily at Umeï¿½ University's Integrated Science Lab (IceLab) and also affiliated with the Department of Molecular Biology (Umeï¿½ University). The opening is for two years (can be extended) and available immediately or as agreed.

Project: The Cava lab at the Laboratory of Molecular Infection Medicine Sweden (MIMS) and the Department of Molecular Biology (Umeï¿½ University) studies cell wall biology and genetics in bacteria. Our goal is to improve the inventory of players in cell wall biogenesis and regulation, characterize their function and interplay, and evolve our work into quantitative studies and computational modeling. As the bacterial cell wall is a major antibiotic target, this research program has a great potential in the development of novel antimicrobial strategies to combat the evolution of multidrug-resistant bacterial pathogens.

Qualifications: Candidates must hold a university degree in bioinformatics/computational biology or in microbiology/molecular biology equivalent to a European University PhD at the time of recruitment. They should be highly

motivated, possess very good communication skills, and be able to collaborate in a team. It is particularly useful if the candidate has experience in modern computer programming languages such as C++, Python, MATLAB, or R.

Application: A complete application should be sent in English to Felipe Cava (felipe.cava@umu.se) and Nathaniel Street (nathaniel.street@umu.se) and Eric Libby (eric.libby@umu.se) including: (i) a cover letter summarizing your qualifications and motives for applying, (ii) a curriculum vitae, and (iii) the names and contacts of three references. Application submitted electronically (MS Word or PDF).

About Umeï¿½ University: Umeï¿½ University provides creative environments for learning and work. It offers a wide variety of courses and programs, world-leading research, and excellent innovation and collaboration opportunities. More than 4,400 employees and 34,000 students have already chosen Umeï¿½ University.

About IceLab: IceLab promotes transdisciplinary collaborations with a focus on cutting-edge research that integrates theoretical, computational, and empirical work. We combine mathematical and quantitative modeling expertise with a deep interest in working with empirical researchers. The recruited postdoc will be part of a multidisciplinary team with complementing expertise in molecular infection biology, systems biology, and machine learning. For more information, see: www.icelab.se; www.molbiol.umu.se More information: For further information please contact Dr. Felipe Cava, felipe.cava@umu.se https://thecavalab.com/ http://www.mims.umu.se/groups/-felipe-cava.html https://icelab.se/about/team/felipe-cava/ https://kaw.wallenberg.org/en/research/unearthing-bacterial-cell-wall-diversity-search-new-antibiotics

We welcome your application!

Eric Libby <eric.libby@umu.se>

## UMissouri StLouis SpeciationPollination

Postdoctoral Researcher in Plant Speciation & Pollination

I am looking for a postdoctoral researcher to join my lab at the University of Missouri - St. Louis. The NSF-funded project involves studying pollination and diversification of the Neotropical genus Burmeistera (Campanulaceae), including the roles of various isolating barriers and introgression in the formation of new species. Candidates should have interests and prior experience with pollination biology, speciation, and/or plant molecular phylogenetics (preferably including bioinformatics analysis of next-gen data). Successful applicants will also be encouraged to carry out his or her own research projects related to work done in the Muchhala Lab (see www.umsl.edu/~muchhalan). The target start date is January 2022, with funding available for up to two years given satisfactory progress.

St. Louis is a vibrant Midwestern city that boasts an exceptional quality of life, combining a low cost of living with a variety of cultural attractions including parks, museums, and lively music and art scenes. The University of Missouri - St. Louis has strong local ties with the Missouri Botanical Garden, the Saint Louis Zoo, Washington University, St. Louis University, and the Donald Danforth Plant Science Center, and annual retreats (sleec.weebly.com) bring together ecologists and evolutionary biologists from these and other local institutions. The Department also houses the Whitney R. Harris World Ecology Center, established to promote international research, particularly in tropical regions.

Review of applications will begin on November 30th. Informal inquiries are welcome: muchhalan@umsl.edu. Submission online here < https://erecruit.umsystem.edu/psp/tamext/STLOU/HRMS/c/HRS_HRAM_FL.HRS_CG_SEARCH_FL.GBHRS_APP_JBPST_FL&Action=U&SiteId=11&FOCUS=Applicant&SiteId=11&JobOpeningId=39162&PostingSeq=1 > (Job ID # 39162). Applicants must combine application materials, including 1) a short statement (one to two pages) on previous experience, research interest, and motivation for applying, and 2) a curriculum vitae, into a single PDF or Microsoft Word document and upload as a resume attachment. Additionally, have three

recommendation letters sent to muchhalan@umsl.edu. For questions about how to apply, please call (314) 516-5258, or if you are experiencing technical problems, please email pshrsupport@umsystem.edu.

UMSL is an Equal Opportunity/Access/Affirmative Action/Pro Disabled & Veteran Employer

– Nathan Muchhala, Ph.D.

Associate Professor Department of Biology University of Missouri -St Louis One University Blvd, R428 Research Hall St Louis, Missouri 63121 (314) 516-6672 http://www.umsl.edu/~muchhalan/ muchhalan@umsl.edu

## UMuenster FlourBeetleNicheEvolution

The Institute for Evolution and Biodiversity at the University of Mï¿½nster, Germany, is seeking to fill the position of a

Postdoctoral Research Associate

(salary level TV-L E 13, 100%)

from the earliest possible date. The position is within the externally funded project SFB/TRR 212. We are offering a fixed-term full-time position until 31 December 2025 corresponding to the duration of the project.

Your tasks:

The position is part of the Collaborative Research Centre (SFB/TRR 212) entitled: A Novel Synthesis of Individualisation across Behaviour, Ecology and Evolution: Niche Choice, Niche Conformance, Niche Construction (NC3), by the German Research Foundation (DFG).

This project focuses on individualised niches in the red flour beetle Tribolium castaneum, an upcoming and genetically tractable insect model species. Flour beetles modify the microbial community of their environment (the flour), which is mediated by chemical secretions from the beetles. The successful candidate will be involved in an ongoing project that aims to experimentally study, if and how the processes of niche construction and evolutionary capacitance facilitate evolutionary adaptation. It involves testing the hypotheses that (1) chemical communication via CHC profiles provides the basis for the transfer of individual experience into a group of beetles; (2) epigenetic processes contribute to the rapid adaptation facilitated by niche construction and evolutionary capacitance; and (3) rapid adaptation to new temporal niches is facilitated by evolutionary capacitance.

The successful candidate will draw on an ongoing experimental evolution study and existing beetle lines to identify the genetic and epigenetic underpinnings of evolved phenotypes, and study the chemical ecology of beetle communication and biological rhythms of beetles in relation to cryptic genetic variation that may facilitate temporal niche adaptation.

Our expectations:

The successful candidate will be a highly motivated scientist, interested in interdisciplinary work. They will have a doctoral degree (or a comparable qualification) in biology, preferentially with a focus on evolution, behaviour, ecology, genomics or related fields. They will also have a background, and ideally some postdoctoral experience, in at least one of the following areas: practical insect work, molecular skills, genomics and bioinformatics, as well as a good understanding of statistics. They will also have excellent communication skills and be able to work both independently and as part of a multidisciplinary team. The working language of the Institute and the lab is English, and good proficiency in spoken and written English is a requirement. German language skills are not a requirement, but a willingness to learn is desirable.

Advantages for you:

The Institute for Evolution and Biodiversity provides a stimulating research environment with a number of scientific

groups researching diverse topics centred on different aspects of evolution. As a part of the Collaborative Research Centre SFB/TRR 212 (https://www.uni-bielefeld.de/fakultaeten/biologie/forschung/verbuende/sfb_nc3/), the project will involve intensive collaboration with consortium partners at the Universities of Mï¿½nster and Bielefeld. The town of Mï¿½nster itself has many students and presents a dynamic environment with many cultural and social events throughout the year (http://www.muenster.de/en/).

The University of Mï¿½nster is an equal opportunity employer and is committed to increasing the proportion of women academics. Consequently, we actively encourage applications by women. Female candidates with equivalent qualifications and academic achievements will be preferentially considered within the framework of the legal possibilities.

The University of Mï¿½nster is committed to employing more staff with disabilities. Candidates with recognised severe disabilities who have equivalent qualifications are given preference in hiring decisions.

Positions can generally be filled as part-time positions if there are no compelling work-related reasons against doing so.

Are you interested?

Then we look forward to receiving your application, written in English, in one single pdf file, by 15 December 2021. Applications should be sent to Prof Joachim Kurtz at: Joachim.Kurtz@uni-muenster.de. Please note that we cannot consider other file formats. Applications should include 1) a cover letter with a statement of research interests and motivation (max. 1 page), 2) a CV including details about research experience and publications, and 3) contact details for at least two referees.

"Kurtz, Joachim" <joachim.kurtz@uni-muenster.de>

## UNewBrunswick TreePopulationGenetics

Postdoctoral Fellow - Population Genetics/Genomics and Transcriptomics of Forest Trees

Forest Genomics Lab, Faculty of Forestry and Environmental Management University of New Brunswick, Fredericton, Canada

A postdoctoral fellow position is available from January 2022 in the Forest Genomics Lab of the University of New Brunswick to work on population genetics/genomics and transcriptomics of forest trees. The projects include studying genetic diversity and structure of populations, phylogeography, genetic and evolutionary impacts of forest fragmentation and forest management practices, evolutionary and adaptive genetic potential of central versus marginal populations of northern forest trees under climate change, and transcriptomic responses of forest trees to climate change conditions. The responsibility of the postdoctoral fellow will be to analyze the data and prepare manuscripts from some of the above completed research work as well as conduct research on evolutionary and adaptive genetic potential of central versus marginal populations of northern forest trees under climate change. The position offers excellent opportunities for many high impact publications. There will also be opportunities to participate in teaching and interacting with national and international collaborators.

Applications are invited from highly motivated, innovative and productive researchers who have excellent data analysis, writing, and leadership skills, are capable of working independently and have keen interest in population genetics and genomics and transcriptomics of forest trees. The applicant should have Ph.D. and research experience in population genetics/genomics or related areas and should have experience or capable of analyzing data on various aspects of population genetics and transcriptomics, including assembly and annotation of transcriptomes, and identification and characterization of differential gene expression.

Initial appointment will be made for one year. The position is renewable for a second year subject to availability of sufficient funds and satisfactory performance. The fellowship amount will be commensurate with the qualification

and experience of the candidate in accordance with the NSERC guidelines.

Please send your application to Prof. Om Rajora via e-mail (Om.Rajora@unb.ca), consisting of a letter of application, statement of research interests and qualifications, complete CV, and names, addresses (e-mail and postal) and telephone numbers of three referees. Evaluation of the applications will commence on 15 November 2021 and will continue until the position is filled.

Om P. Rajora, Ph.D. Professor Faculty of Forestry and Environmental Management University of New Brunswick Fredericton, NB E3B 5A3 Canada

E-mail: Om.Rajora@unb.ca Phone: (506) 458-7477; Fax: (506) 453-3538

Om Rajora <om.rajora@unb.ca>

## UOslo EvolutionaryGenomics

Postdoctoral Research Fellow in evolutionary genomics, University of Oslo

Apply here: https://www.jobbnorge.no/en/available-jobs/job/214899/postdoctoral-research-fellow-in-evolutionary-genomics Apply by: 30th November 2021

Job description Position as post doc available at Centre for Ecological and Evolutionary Synthesis, Department of Biosciences.

The position is for a period of 3 years. Starting date no later than 01.03.2022

No one can be appointed for more than one Postdoctoral Research Fellowship at the University of Oslo.

We are looking for a highly motivated candidate for a three-year post doc position as part of this exciting collaborative research project between the University of Oslo, University of Nottingham (UK) and the Netherlands Institute of Ecology (NIOO-KNAW). The researcher will help develop our understanding of the evolutionary origins of human-commensalism in Passer sparrows. The project will focus on two key questions; 1) does human commensalism have a single origin within the house sparrow? and 2) has adaptation to a human-commensal niche occurred in parallel in the tree sparrow?

We aim to combine morphological and genomic data from existing datasets, museum samples and ongoing fieldwork to address the core aims of the project. The successful candidate will be allowed to choose aspects of the larger program as best fits their skills and research interests. They will also be encouraged to develop additional, complementary avenues of research. The researcher will oversee population-level whole genome resequencing from the wet-lab to data interrogation and will be expected to be proficient in bioinformatics (R/Unix/Python) with documented skills in genomic analyses. A PhD in population genetics/genomics, evolutionary genomics, evolutionary biology or a related subject is necessary. Experience with working with birds and bird genomes would be helpful but is not a requirement. The researcher will be based at the Centre for Ecological and Evolutionary Synthesis at the University of Oslo but will also be expected to visit the University of Nottingham (UK) for additional training and support with research visits to the Netherlands. There will likely be opportunities for fieldwork in Central and Southern Asia. The working language of the research group is English.

It is becoming exceedingly clear that humans have been, and still are, drastically altering the planet. Although human activity typically has a negative effect on biodiversity, some species have rapidly adapted to novel niches opened up by human activity. The house sparrow (Passer domesticus) is a successful human commensal that thrives in human created niches. It has adapted to urban and agricultural habitats on every continent except Antarctica. Intriguingly, a number of other Passer sparrows are also human commensals having likely experienced similar selective pressures; one of the most striking is the Eurasian tree sparrow (Passer montanus), which is an obligate commensal across much of East Asia. The overarching aim of this newly funded project (Norwegian Research Council) is to determine the evolutionary causes and consequences of human commensalism in Passer sparrows using whole genome resequencing, high resolution phenotyping and extensive fieldwork.

The main purpose of a postdoctoral fellowship is to provide the candidates with enhanced skills to pursue a scientific top position within or beyond academia. To promote a strategic career path, all postdoctoral research fellows are required to submit a professional development plan no later than one month after commencement of the postdoctoral period.

Qualification requirements: The Faculty of Mathematics and Natural Sciences has a strategic ambition to be among the leading communities for research, education and innovation in Europe. Candidates for these fellowships will be selected in accordance with this, and expected to be in the upper segment of their class with respect to academic credentials.

- Applicants must hold a degree equivalent to a Norwegian doctoral degree in evolutionary biology/genetics/genomics. Doctoral dissertation must be submitted for evaluation by the closing date. Only applicants with an approved doctoral thesis and completed defence are eligible for appointment. - Fluent oral and written communication skills in English is required

Desirable qualifications:

- Experience in bioinformatics including in Unix, python and/or R - Experience with population genomic analyses and reconstructing evolutionary histories - Experience in using high-powered computer clusters and resources - A demonstrated record of published scientific research in population genomics, evolutionary biology, evolutionary genetics

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## UOttawa FungalHostInteractions

Postdoctoral position in Fungal-Host genomic-interactions

A Postdoctoral Fellow position is available in the laboratory of Dr. Nicolas Corradi at the University of Ottawa (ON, Canada).

The position is initially funded for two years, and possibilities to extend the contract via external Fellowships will be strongly encouraged and supported (e.g. Human Frontiers, Marie-Curie, Banting or NSERC Postdoctoral Fellowships). The successful applicant will join a fun and inclusive lab supervised by Dr. Nicolas Corradi located in the Department of Biology at the University of Ottawa (Ottawa, Ontario, Canada.

The Postdoctoral Fellow will continue push boundaries in understanding the complex genetics and genomics of multinucleate plant symbionts called Arbuscular Mycorrhizal Fungi (AMF). In particular, the candidate's work is expected to further highlight the intricate relationships between AMF genetics and those of their hosts. For recent breakthroughs in this area, see representative publications below and on our website (https://-corradilab.weebly.com/).

Application Process: Applicants are expected to have a good background in at least one of the following areas: Transcriptomics, Comparative genomics, Phylogenomics and/or Programming skills for the Life Sciences. Generally, we seek someone who is excited about tackling complex genetic systems and willing to learn new methods.

A complete application package includes 1) a CV , 2) Cover Letter with a short (half a page) description of past research accomplishments/future goals and 3) the names and e-mail addresses of at least two references. Complete applications can be sent to Dr. Nicolas Corradi: ncorradiATuottawa.ca. Incomplete applications will not be reviewed.

Starting date and eligibility: August 2022 (earlier date is possible). Evaluation of applications starts immediately until a suitable candidate is found. The position is open to all Canadian residents and International applicants.

Location: The University of Ottawa is a large, research-intensive university, hosting over 40.000 students and located in the downtown core area of Canada's capital city (https://www2.uottawa.ca/en). Ottawa is a vibrant, multicultural city with a very high quality of life.(http://www.ottawatourism.ca/fr/)

Representative Publications:

1. Yildirir G., Sperschneider J., Malar M. C., Chen E.C.H., Iwasaki W., Cornell C., and Corradi N.. Long reads and Hi-C sequencing illuminate the two-compartment genome of the model arbuscular mycorrhizal symbiont Rhizophagus irregularis. New Phytologist 2. Malar M.C. , Krüger M., Krüger C.*, Wang Y., Stajich J.E., Keller J., Chen C.H., Yildirir G., Villeneuve-Laroche M., Roux C.R., Delaux P.M. and Corradi N. The genome of Geosiphon pyriformis reveals ancestral traits linked to the emergence of the arbuscular mycorrhizal symbiosis. Current Biology. 31, 1570-1577.e4 3. Kokkoris V., Chagnon P.L., Yildirir G., Clarke K., Goh D., MacLean A.M., Dettman J., Stefani F. and Corradi N. Host identity influences nuclear dynamics in arbuscular mycorrhizal fungi. Current Biology. 31, 1531-1538.e6 4. Vasilis V., Dettman J., Dalpé Y., Stefani F. and N. Corradi. Nuclear Dynamics in the Arbuscular Mycorrhizal Fungi. 2020. Trends in Plant Science 25 p. 41-48. 5. Yildirir G., Malar M.C., Kokkoris V. and N Corradi. 2020. Parasexual and Sexual Reproduction in Arbuscular Mycorrhizal Fungi: Room for Both. Trends in Microbiology 28 (7), 518-520 6. Ropars J., Kinga SÄdzielewska Toro K. Noel J., Pelin A., Charron P., Farinelli L., Marton T., Krüger M., Fuchs J., Brachmann A., and N. Corradi. Evidence for the sexual origin of heterokaryosis in Arbuscular Mycorrhizal Fungi. Nature Microbiology 1(6): 16033, 2016.

Nicolas Corradi

University Chair in Microbial Genomics

Associate professor - Professeur Associé Department of biology - Département de biologie Université de Ottawa - University of Ottawa

Bureau/Office: GNN257 - Tel : 613 5625800 - ext 6563 Website: http://corradilab.weebly.com/ Nicolas Corradi <ncorradi@uottawa.ca>

## UOulu PopulationGenomicsAnts

Postdoctoral researcher, Genetic basis of convergent evolution We, at the University of Oulu, Ecology and Genetics Research Unit, are seeking a postdoctoral researcher to work on an Academy of Finland funded project investigating genetic underpinnings of convergent evolution of multi-queen colonies (polygyny) in ants.

The successful candidate will focus on analyzing genomic architecture and selection across the genomes of monogynous and polygynous ant species using whole-genome sequence data. Other tasks include supervision of Ph.D. and M.Sc. students and teaching at most 5% of working time. The project includes a two-month research visit to Uppsala University to work with Prof. Matthew Webster.

Qualification requirements:

* Ph.D. in biology, obtained within the last 10 years * Experience in population genomics and bioinformatics * Fluency in written and spoken English

Salary The salary will be in accordance with the Finnish universities salary system (for teaching and research personnel): level 5-6. In addition, a salary component based on personal work performance will be paid (maximum of 50% of the job-specific component). Starting gross salary will be 3400-3500 euro per month. A trial period of six months is applied in the position. Occupational health care is included.

How to apply Applications, together with all relevant enclosures, should be submitted using the electronic application form (https://bit.ly/3EwEIlg) by 30th of November 2021. The application should be written in

English and include the following: 1) A motivation letter (max. 1 page) summarizing applicant's professional experience and describing why applicant is interested in this position. Information on personal research interests, experience and career plan may also be provided here 2) Curriculum vitae (max. 4 pages) 3) List of publications based on the guidelines of the Academy of Finland: https://www.aka.fi/en/research-funding/apply-for-funding/-how-to- apply-for-funding/az-index-of-application-guidelines2/list-of- publications/ 4) Certificates/Diplomas: Scanned copy of the original doctoral degree certificate and transcript of records and, when necessary, official translations to Finnish or English 6) Contact information of two senior/experienced researchers who may be asked to give a statement on the candidate

Only applications containing all relevant appendices and submitted through the online recruitment system (https://bit.ly/3EwEIlg) will be considered. Top candidates will be invited to an on-site or remote interview.

Further information The position is for 3 years, and the start date is negotiable (preferably spring 2022). A trial period of 6 months is applied in the position.

Please contact Dr. Lumi Viljakainen (lumi.viljakainen@oulu.fi) with any questions.

Find out more about city of Oulu: https://www.oulu.fi/university/living-in-oulu

## USalford PrimateGenomics

Suggested headline: USalford.PrimateGenomics

Dr Robin Beck, Prof Jean Boubli, and Dr Ian Goodhead at the University of Salford, UK, are currently undertaking a three year (September 2020-August 2023) NERC-funded grant for a project entitled "Rise of the Continent of the Monkeys". This project aims to reveal the genomic changes underlying phenotypic adaptations, the major drivers of diversification, the role and relative importance of abiotic and biotic factors, and the processes that have shaped the adaptive radiation of a highly diverse (170 living species) clade of South American mammals, the New World primates, since their origin ~35-45 million years ago. As part of this grant, we are able to a bioinformatics/genomics-focused postdoctoral position for 18 or 19 months, depending on start date (preferred start date is early January 2022). The purpose of the genomics-focused role is to investigate the phylogenetic relationships, diversification, and trait evolution of New World primates through time using a range of genomic/bioinformatic approaches.Specifically, the role will comprise the following major research objectives:

Using new whole genomes representing every NWP genus to i) identify positive selection, inactivation and/or changes in copy number in genes known to be associated with diet, activity pattern and body size in mammals; ii) reconstruct likely ancestral phenotypes; iii) determine number, direction and timing of transitions between phenotypic traits Accurate resolution of the number of living NWP species and their phylogeny using coalescence-based methods for phylogeneticanalysis and species delimitation Production of a total evidence phylogeny that combines our phylogenomic dataset with an existing morphological dataset that includes both extant and fossil taxa using "tip-and-node" dating and the Fossilised Birth-Death model Comparative analysis of phylogenies to: i) identify major shifts in diversification rate through time; iii) determine whether diversification rate shifts are synchronous with major geological, climatic or other environmental change; iii) determine whether the inclusion of fossil taxa has a major impact on identification of rate shift.

Full advert and details on how to apply are here:

https://universityofsalford.tal.net/vx/lang-en-GB/mobile-0/appcentre-1/brand-4/xf-e21501c16e08/candidate/so/-pm/1/pl/3/opp/340-Post-Doctoral-Research-Associate-comparative-genomics/en-GB For more information, email Robin Beck: r.m.d.beck@salford.ac.uk

Robin Beck <R.M.D.Beck@salford.ac.uk>

## USouthampton UK
## ModellingEvoTransitions

Postdoctoral Senior Research Fellow in Theoretical Biology/Computer Science (1573721FP)

Project: Connectionist Approaches to Modelling Evolutionary Transitions in Individuality (evo-ego)

Application Deadline: **23rd Nov 2021** Salary: 39,739 to 44,706 GBP*

We welcome applications for a postdoctoral researcher to build computational models of evolutionary processes, at the lab of Richard Watson at the University of Southampton. The position is available, for a duration of up to 25 mths, starting Jan 2022 or as soon as possible thereafter.

About the project:

This project (funded by the John Templeton Foundation) investigates the evolutionary transitions in individuality, such as the transition from unicellular life to multicellular organisms. The approach will build on recent developments unifying evolutionary theory with learning theory (Watson & Szathmary, 2016, TREE, 31(2), 147-157). This work converts (connectionist) models of distributed learning and cognition, already well-developed in computer science/neural networks/machine learning, to deepen and expand our understanding of natural evolution. The candidate will use computational modelling to explore the evolution of network structure and its effect on ecological/developmental organisation and evolutionary capabilities. This will characterise the type of relationships and organisation that is needed to convert a collection of (previously) independent evolutionary individuals into a new level of organisation that functions and evolves at a new, higher level of individuality. In particular, we will explore the hypothesis that the conditions that enable evolution to exhibit a transition in individuality are predicted by the conditions that enable learning systems to induce and exploit deep models, a.k.a. deep learning.

The successful candidate, based in Southampton, will also work with co-investigators Chris Buckley (University of Sussex, UK.) and Mike Levin (Tufts University, USA). As a part of this team, the candidate will also work closely with PhDs and another post-doc dedicated to this project and on related projects.

The candidate:

Appropriate skill sets include computational modelling of gene-regulation networks, ecological dynamics/community network modelling, theoretical population genetics, mathematical modelling of biological evolution, social evolution theory, adaptive dynamics, evolutionary game theory, computational individual-based modelling, complex adaptive systems, algorithmic/functional modelling of evolutionary adaptation.

Applicants must be capable of building bridges that link between evolutionary biology and computer science and have a PhD or equivalent professional qualifications and experience in either evolutionary theory (e.g. adaptation, selection, evolutionary systems biology, mathematical biology, social evolution theory), with strong mathematical skills and experience in simulation modelling/programming, OR —a PhD in computer science/maths/physics (e.g. algorithms, machine learning, complex systems/dynamical systems modelling, optimisation) with strong knowledge/experience of working on applications in theoretical evolutionary biology.

Applications must include a CV, publications list, the names of three referees and a covering letter explaining your current interests and relevant background.

Equality, diversity and Inclusion is central to the ethos in the School of Electronics and Computer Science. We particularly encourage women, Black, Asian and minority ethnic, LGBT and disabled applicants to apply for this position. We are committed to improving equality for women in science and have been successful in achieving an Athena SWAN bronze award in April 2020. — We give full consideration to applicants that wish to work flexibly including part-time and due consideration will be given to applicants who have taken a career break. The University has a generous maternity policy*, onsite childcare facilities

—The University of Southampton is in the top 1% of world universities and in the top 10 of the UK's research-intensive universities. The University of Southampton is committed to sustainability and being a globally responsible university and has recently been awarded the Platinum EcoAward. —Our vision is to embed the principles of sustainability into all aspects of our individual and collective work, integrating sustainable development into our business planning, policy-making, and professional activities. —This commits all of our staff and students to take responsibility for managing their activities to minimise harm to the environment, whether this through switching off non-essential electrical equipment or using the recycling facilities. — —*subject to qualifying criteria — Links: Further information: https://www.richardawatson.com/positions-open

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## USouthCarolina Aiken PopulationGenomics

Post-Doctoral Fellow, UofSC Aiken, Department of Biology & Geology

The Ramstad Lab < https://www.usca.edu/biology-geology/research/faculty-labs/ramstad-lab > at the University of South Carolina Aiken is seeking applicants for a full-time, one-year postdoctoral position with a preferred start date of 1 May 2022. Research in the Ramstad lab focuses on conservation genomics of diverse vertebrate systems. The successful candidate will participate in genomic studies to understand the genetic basis of migration in the federally threatened American wood stork and red body color in sockeye salmon. Primary duties will include bioinformatic analyses (including GWAS with whole genome sequences), genomic data management (including using Rmarkdown and Git) and preparation of peer-reviewed manuscripts. The position will be excellent training for those considering a career that balances research and teaching. The successful candidate will participate in teaching undergraduate courses (BIOL 350 - Population Genomics and BIOL 352 - Fundamental Genetics), organizing and teaching a Bioinformatics Workshop and mentoring undergraduate researchers.

UofSC Aiken is consistently ranked as the #1 Regional Comprehensive Public College in the South by U.S. News & World Report and has been designated a 'Best Place to Work' by The Chronicle of Higher Education. The city of Aiken has been ranked as the 'Best Small Town in the South' by Southern Living Magazine. Numerous beaches, the Blue Ridge Mountains and Smoky Mountain National Park are all within a three-hour drive of Aiken.

Education Requirement: Candidates must have a Ph.D. in Biology, Bioinformatics, or related area with a focus on conservation or population genomics. Demonstrated proficiency in bioinformatic techniques, including processing of next generation sequencing data (e.g., WGS, GWAS, RADCap), is required. Strong candidates will have experience in computer programming, including writing and troubleshooting code, and a publication record from their graduate or other work (papers published, in press, or submitted).

Application process: Applications will be accepted until position is filled. Interested applicants should apply online at https://uscjobs.sc.edu/postings/108463 and submit: a) cover letter describing your research interests and motivation, how your skills are aligned with the needs of the position and your future research interests/plans and b) current curriculum vita. Finalists will be asked to submit three letters of recommendation. Women and minorities are encouraged to apply. UofSC Aiken is an AA/EOE.

Dr Kristina M Ramstad

Associate Professor Department of Biology and Geology University of South Carolina Aiken 471 University Parkway Aiken, SC 29801

Kristina Ramstad <KristinaR@usca.edu>

## USouthernCalifornia HumanPopulationGenetics

With the recently funded R35 and anticipated R01 funding, we are looking to hire 1-2 postdocs who are interested in research at the intersection of human and population genetics, taking place in the lab of Dr. Charleston Chiang at Keck School of Medicine, University of Southern California in Los Angeles, California.

The positions are made possible with funding from an R35 MIRA (https://reporter.nih.gov/search/wtQod7yC-0-Dqqmy5-RxGg/project-details/10275367), and an anticipated R01 to start in early 2022. Broad descriptions of the projects include:

* The R01 focuses on investigating the demographic history, genetics of metabolic traits, transferability of risk stratification models, and community outreach in Pacific Island populations (Native Hawaiians, Samoans). * The R35 broadly investigates the consequence of natural selection on present day human phenotypes, including method developments infusing principles of population genetics into statistical genetic applications (for example, see our latest preprint: Fan et al. bioRixv, https://www.biorxiv.org/content/10.1101/2021.08.18.456747v1 and Chen et al. AJHG, https://www.sciencedirect.com/science/article/pii/S0002929720301610).

It is also possible to fund the postdoc position partly with unrestricted funds such as start-ups, and therefore there is room for postdocs to explore research topic broadly consistent with the research direction of the lab. For example, we have access to Taiwan Biobank genetic and phenotypic data, as well as whole genome sequencing data from Saudi populations, that we can freely explore.

The position is for at least 2 years, starting at scale 5 of the NIH postdoc scale at minimum (~$62K USD per year), and further scale with relevant experience. Because of the various ways the position can be funded, start date is flexible. Candidates should have a Ph.D. in genetics, computer science, bioinformatics, computational biology, or a related field. Proficiency in one or more programming languages (e.g. python, perl, C++, R, etc.) and in Unix-based computing environment is essential. Experience in conducting human genetics or population genetics research and analyzing large genetic datasets is a plus, but not required. Applications will be reviewed as they are received, but by December 1st, 2021, at the latest. Position will remain open until filled.

To learn more about our lab, please visit http://chianglab.usc.edu Inquiries and application should be submitted to Dr. Charleston Chiang directly via email: charleston.chiang@med.usc.edu. The application asks for a CV, cover letter, and contact information (not letters) for 2-3 references.

Charleston W. K. Chiang, Ph.D. Assistant Professor of Population & Public Health Sciences Center for Genetic Epidemiology Keck School of Medicine Assistant Professor of Quantitative & Computational Biology University of Southern California http://chianglab.usc.edu Twitter: @CharlestonCWKC

“Chiang, Charleston” <Charleston.Chiang@med.usc.edu>

## UStAndrews UK EvoDevoPlasticityModelling

Postdoctoral Research Fellow in Theoretical Biology/Computer Science (AR2609SB)

Project Title: How Exploratory and Selective Developmental Mechanisms Generate facilitated variation, confer agency on organisms and impose purpose on evolution.

Application Deadline: **11th Nov 2021**

Applications are invited for a full-time, fixed-term (2-year) Postdoctoral Research Fellow to work with Professor Kevin Laland (Biology, University of St Andrews) and Professor Richard Watson (Computer Science, Southampton University). The successful candidate will develop computational models of adaptation and evolvability in biological systems that exhibit complex forms of adaptive plasticity (exploratory behaviour). The successful candidate will have a good degree in biology or computer science and a relevant PhD, with a demonstrated ability: to build computational models, to reason about evolutionary process in a computational framework, to produce high-quality scientific publications and... for independent thinking.

The applicant will be based at the University of St Andrews (UK) with Kevin Laland, and also working with Richard Watson (University of Southampton, UK).

The post is available for 24 months starting January 2022 or as soon as possible thereafter.

Informal enquiries can be directed to Professor Kevin Laland, knl1@st-andrews.ac.uk or Linda Hall, lnh1@st-andrews.ac.uk. Or Richard Watson (DrRichardAWatson@gmail.com)

The project is funded by The John Templeton Foundation (The Science of Purpose funding initiative).

Working Hours: Full time Grade/Salary Range: Grade 6/ï¿½34,304 per annum Please quote ref: AR2609SB Closing Date: 11 November 2021 Interview Date: Early December 2021

Links: Further Particulars: tinyurl.com/AR2609SB-FPs Advert: https://www.jobs.ac.uk/job/CJV505/post-doctoral-research-fellow-in-theoretical-biology-computer-science-ar2609sb Further info: https://www.richardawatson.com/-positions-open=0AApply here: https://www.vacancies.st-andrews.ac.uk/ – Dr. Richard A. Watson Associate Professor Institute for Life Sciences/Electronics and Computer Science, University of Southampton www.richardawatson.com Dr.Richard.A.Watson@gmail.com

"R.A.Watson@soton.ac.uk" <R.A.Watson@soton.ac.uk>

## UTexas Austin Biodiversity

DESCRIPTION Recent Ph.D.s are invited to apply for distinguished postdoctoral positions to study the diversity of life and/or organisms in their natural environments at The University of Texas at Austin (UT), one of the top campuses in the country for this area of research.

Funded by the Stengl-Wyer Endowment, the Stengl-Wyer Scholars Program provides up to three years of support for talented postdoctoral researchers in the broad area of the diversity of life and/or organisms in their natural environments. Scholars may study any groups of organisms, at levels from genes to populations to communities to ecosystems, and may use any combination of approaches. Scholars will: - conduct cutting-edge research over three years; - have access to the outstanding core facilities at UT, including field stations, natural history collections, computational, imaging, and biomolecular facilities; - reside locally and have a regular work space and presence on the main UT campus; - primarily focus on research, but in one of the three years, also implement a teaching or outreach effort related to their interests and career goals; - participate in biweekly meetings (luncheons) with other Stengl- Wyer Scholars, Fellows or guests; and - receive career mentorship.

Scholars are expected to be independent and propose their own research project. Applicants should identify one or more faculty members from UT's College of Natural Sciences (CNS) who will provide laboratory space and serve as mentor. Scholars will be encouraged to interact broadly and collaborate with other faculty, postdocs, and graduate students at UT. 2022 Scholar recipients will receive the following: - $68,000 annual salary plus UT benefits - $10,000 annual allowance for research and travel expenses - Up to $3,000 relocation expenses

ELIGIBILITY

Eligible applicants must have completed a Ph.D. or equivalent degree by the projected start date and must not

have exceeded 18 months in a postdoctoral position at the time of application deadline. Preference will be given to applicants whose proposed projects broaden the scope of research in CNS and are relevant to the Stengl-Wyer Endowment's mission to explore the diversity of life and organisms in their natural environments. Additionally, preference will be given to applicants not already in residence at UT. Applicants who are non-US citizens or permanent residents must be eligible for J-1 Scholar visa status; the Stengl-Wyer Scholars program cannot support H-1B visa applications. CNS particularly encourages applications from individuals within populations traditionally underrepresented in our disciplines. Our goal is to provide all Scholars with an inclusive and supportive environment in which they may realize their intellectual potential. The project start date at UT should be between June 1, 2022 and May 31, 2023.

APPLICATION COMPONENTS

All application documents should be formatted using 1-inch margins and no smaller than 11-point font. Recommended fonts are Arial, Georgia, Helvetica and Times New Roman. The following documents are all required and must all be submitted by the application deadline:

1. Lay Summary: In 200 words or less describe for a general audience the proposed project and its potential impact on the understanding of the diversity of life and interactions between organisms and their natural environments.

2. Curriculum Vitae: Provide a current CV including academic background and research experience.

3. Research Plan (4 pages maximum; including figures and excluding citations): Describe the independent project that the applicant wishes to develop or implement at UT. The Research Plan should be innovative but feasible and should be developed independently by the applicant. The applicant is encouraged to consult with the proposed mentor(s) about relevant UT facilities and infrastructure. Preliminary data are not required.

4. Bibliography/References (no page limit): List sources in a document separate from the Research Plan.

5. Scientific Impact Statement (1 page maximum): Describe the novel aspects and significance of the proposed project with respect to applicant's prior work and the ongoing work in the potential faculty mentor's lab. Describe how this work will make a substantial contribution addressing a major unresolved scientific question.

6. Letter(s) of Support: Submit letter(s) of support from one or more potential faculty mentor(s) within CNS (Integrative Biology, Marine Science, Molecular Biosciences, Neuroscience, Statistics and Data Science, Computer Science, Physics, Astronomy and other departments with programs relevant to the

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## UToronto Mississauga EvolutionaryNeurobiology

Title: UniverisityofTorontoMississauga.EvolutionaryNeurobiology

A postdoctoral research position is available in the Senatore Lab at the University of Toronto Mississauga to study the evolutionary origins and deep phylogenetic properties of protein-protein interactions involved in synapse formation and function. These interactions serve to recruit and form complexes with ion channels, neurotransmitter receptors, exocytotic proteins, and signaling molecules at pre- and post-synaptic locations. The candidate will utilize cutting-edge equipment available in the lab and on campus, integrating a broad range of techniques including genomics, phylogenetics, high-throughput protein interaction screening, protein biochemistry, fluorescence microscopy, immunohistochemistry, and patch-clamp/sharp electrode electrophysiology.

The position is full time (40 hours per week), for a period of one year, with the possibility of extending up to two

additional years based on need for the position and satisfactory performance in the role.

We are seeking a highly motivated individual (domestic or international) who has defended their PhD, has demonstrated success in research including first authored publications and strong letters of reference, and who is interested in mentoring and collaborating with other members of the lab.

Individuals who identify with underrepresented groups in the fields of science, technology, engineering, and mathematics (STEM) are especially encouraged to apply.

The Senatore lab is in the William G. Davis Building at the University of Toronto Mississauga. We are part of the Department of Cell and Systems Biology, comprised of a vibrant, diverse, and energetic group of researchers across all three University of Toronto campuses (St. George, Mississauga, and Scarborough). The University of Toronto Mississauga campus backs onto the Credit River, with quick access to beautiful hiking trails along the river. The campus is 33 kilometers west of the University's St. George campus in downtown Toronto, with easy access via university shuttle buses and public transportation.

Those wishing to apply should email their CV, a one-page statement of research interests, and a list of three professional references (name, title, and contact information) to adriano.senatore@utoronto.ca.

https://senatorelab.com/ https://csb.utoronto.ca/faculty/adriano-senatore/ Adriano Senatore <adriano.senatore@utoronto.ca>

## UVirginia CytonuclearCoevolution

Seeking Postdoctoral Research Associate to evaluate the contribution of cytonuclear coevolution to reproductive isolation. The Research Associate will help design and carry out studies to dissect the architecture of genetic incompatibility of an annual plant both range-wide and in a natural hybrid zone using crossing studies as well as genomic and bioinformatic analyses.

The Research Associate will be based in Laura Galloway's lab at the University of Virginia (https://gallowaylab.weebly.com) and will interact frequently with Karen Barnard-Kubow's group at James Madison University (https://-sites.google.com/virginia.edu/karen-barnard-kubow/home), an hour away by car. The Research Associate will be encouraged to develop additional projects that complement the main study or are related to ongoing research in either lab.

The Biology Department at UVA (http://bio.as.virginia.edu/) is an excellent training environment for curious, highly motivated scientists. The successful applicant can expect to interact frequently with the department's strong, collegial group of evolutionary ecologists and geneticists (https://www.eebvirginia.org/).

See this site for a full description of the position and to apply: https://uva.wd1.myworkdayjobs.com/en-US/-UVAJobs/job/Charlottesville-VA/Research-Associate-in-Biology_R0030661-1 Please contact Laura Galloway at lgalloway@virginia.edu with any questions including to discuss the project, the lab and the work environment. For questions about the application process, please contact Richard Haverstrom, Faculty Search Advisor, at rkh6j@virginia.edu

– Laura Galloway

lg8b@virginia.edu

## UWisconsin Madison
## EvolutionTranslation

KACAR LAB: Postdoctoral Researcher

Requirements: PhD. in Biochemistry, Molecular Biology or related discipline with demonstrable experience in molecular cloning, gene mutagenesis, bacterial genome editing, gene/protein expression, protein purification (western and northern blot). Good organizational skills are a must. Familiarity with computational tools is a plus.

Job Duties: The Kaï¿½ar Astrobiology Group (ancientbiology.org) at the University of Wisconsin-Madison in the Department of Bacteriology is looking to hire a Postdoctoral Researcher to study the evolution of the translation machinery in bacteria. Our lab works at the interface of molecular evolution, synthetic biology, genome engineering, biochemistry, molecular biology and origins of life and is host to one of the NASA centers dedicated to understanding early Earth biology and evolution. (https://www.nasa.gov/feature/nasa-selects-new-science-teams-for-astrobiology-research)

The successful candidate will focus on the study the evolution of translation machinery proteins building on in-vivo and in-vitro systems and will participate in an on-going collaboration with the Landick Lab at the UW-Madison Biochemistry (landick.wisc.edu).

On campus, the candidate would be joining an outstanding community of microbiologists in which the basic and applied sciences blend. UW-Madison offers a historical and cutting-edge setting to explore the transcription and translation mechanisms and is home to world-class Bacteriology, Biochemistry and Genetics departments. Additionally, UW-Madison has a vibrant Origins of Life community centered around the Discovery Institute.

Located 2.5 hours by car from downtown Chicago, Madison is the capitol of Wisconsin and home to the University of Wisconsin-Madison (UW-Madison). UW-Madison and the city of Madison co-occupy an isthmus between two large, beautiful lakes revered by the native Ho-Chunk Nation, creating a unique and lively atmosphere. The University and Madison offer a thriving diverse environment with ready access to cultural activities, outdoor pursuits, and stimulating neighbors and colleagues.

To Apply: Interested individuals should email their 1) CV (2 pages max); 2) Research interest statement (with relevant experience); and 3) Contact information for up to three references in a single PDF file to Maria Katsoulidis (katsoulidis@wisc.edu).

Deadline to apply: 1/1/2022 Begin Date: TBD Salary: TBD Percent Time: 100%

MARIA S KATSOULIDIS <katsoulidis@wisc.edu>

## UWisconsin Milwaukee 2
## Microbiome

Two postdoctoral positions are available to join a collaborative research team funded by an NSF Microbiome Theory and Mechanismsgrant that includes investigators at Boise State Universityas well as the Universities of Florida, Wisconsin-Madisonand Wisconsin-Milwaukee. The post-doctoral positions will be based at UW-Milwaukee and UW-Madison but both will work within the larger team investigating successional processes in the microbial communities associated with carnivorous pitcher plants. The plants host diverse microbial communities as part of a detrital food web of invertebrates. The project will employ interdisciplinary approaches including

molecular genetics, biochemistry and ecological modeling to characterize the succession of microbial communities, functions and interactions with the plant host in this fascinating model system.

One Postdoctoral Research Associate position is available in the lab of Dr Erica Youngin the Department of Biological Sciences at UW-Milwaukee https://uwm.edu/biology/people/young-erica/. The researcher will contribute to intercontinental comparison of microbiome succession in field populations, but also run manipulative field experiments at the UW-Milwaukee field site at Cedarburg Bog to examine host effects on microbial community composition and functions using genetic analysis, hydrolytic enzyme activities and community metabolic profiling. The ideal candidate will have experience in microbial ecology, fieldwork and expertise in microbial diversity analysis including bioinformatics. Some experience in biochemical assays or chemical analysis, metacommunity transcriptomics analysis, or food web ecology is highly desirable. For more information, email Erica Young: ebyoung@uwm.edu

Another Postdoctoral Research Associate position is available in the lab of Dr. Zac Freedmanin the Department of Soil Science at UW-Madison https://freedmanlab.soils.wisc.edu/. The incumbent will contribute to fieldwork as part of a multi-site, intercontinental comparison of microbiome succession in field populations, as well as lead an effort to consider the data generated in this project in the context of microbial succession in other plant-associated and soil systems. In this way, we will target the question: can patterns of succession in pitcher plants and other soil and plant-associated microbiomes uncover general rules of microbiomes? To address this question, the post-doc will explore the succession of bacterial community composition and functions across systems using cutting-edge modeling techniques. The ideal candidate will have experience in microbial ecology and fieldwork. Some experience in ecological modeling is highly desirable. For more information, email Zac Freedman: zfreedman@wisc.edu

DrErica B. Young (she/her) Professor,Department of Biological Sciences

University of Wisconsin Milwaukee, USA http://uwm.edu/biology/people/young-erica/ Erica B Young <ebyoung@uwm.edu>

## UWyoming
## AvianEvolutionaryGenomics

I am seeking a postdoc with experience in Avian Evolutionary Genomics to join my lab group at the University of Wyoming. The postdoc will receive a competitive salary, full U Wyoming benefits, and an allowance for research, travel costs, etc. Successful candidates will contribute to on-going research projects in the lab, including work on divergence patterns within and among Passerina bunting species, hybridization dynamics between Indigo and Lazuli Buntings, and adaptation and hybridization between Black-capped and Carolina Chickadees. The postdoc will also be able to develop independent research projects related to speciation and adaptation in birds.

Essential duties include: contribute to the analyses of large-scale genomic datasets, including whole-genome resequencing data, GBS data, and possibly RNAseq data; contrite to the analyses of other large-scale dataset (e.g., eBird, climate data); prepare and submit scientific manuscripts; assist in mentoring of graduate and undergraduate students; and be an active member of the ecology and evolutionary biology community at the University of Wyoming.

The minimum qualifications include: A PhD in Biology or a related field; experience in avian evolutionary biology; evidence of a strong publication record.

Other desired qualifications include: Experience with bioinformatic tools for analyzing large-scale molecular datasets; experience and interest in mentoring.

Require application materials include: An online application (https://eeik.fa.us2.oraclecloud.com/hcmUI/-CandidateExperience/en/sites/CX_1/job/212823), a cover letter, CV, contact information for 4 work-related references, and a 2-3 page statement on previous research experience and future research goals.

The start-date is flexible, but the successful candidate could start as early as 1 February 2022.

The position will remain open until filled, but applications will begin to be reviewed on 10 December 2021 and all applications received by that date will receive full consideration.

Hiring statement: U Wyoming is an Affirmative Action/Equal Opportunity Educator and Employer. We are committed to a multicultural environment and strongly encourage applications from women, minorities, veterans, and persons with disabilities. In compliance with the ADA Amendments Act (ADAAA), if you have a disability and would like to request an accommodation to apply for a position, please call 307-766-2377 or email jobapps@uwyo.edu

About Laramie: The University of Wyoming is located in Laramie, a town of 30,000 in the heart of the Rocky Mountain West. The state of Wyoming continues to invest in its university, helping to make it a leader in academics, research, and outreach. The university has state-of-the-art facilities in many areas and the community provided the advantages of a major university. Located in a high mountain valley near the Colorado border, Laramie offers both outstanding recreational opportunities and close proximity to Colorado's Front Range, a bustling group of metropolitan cities including Denver, Boulder, and Fort Collins. This beautiful mountain landscape offers outdoor enjoyment in all seasons, with over 300 days of sunshine annually. For more information about the region, please visit http://visitlaramie.org Please contact me, mcarling@uwyo.edu, for more information or with any questions.

Matt Carling, PhD Department of Zoology & Physiology Berry Biodiversity Conservation Center University of Wyoming

www.carlinglab.com 307.223.1762 mcarling@uwyo.edu

Pronouns: he, him, his

"Matthew D. Carling" <mcarling@uwyo.edu>

## VrijeU Amsterdam ProteomicsSeminalFluidSnails

Post-doc position in Amsterdam for snail seminal fluid proteomics Do you have experience with proteomics, and would you like to work on hermaphroditic snails? Please apply at Vrije Universiteit Amsterdam: https://werkenbij.vu.nl/ad/postdoc-snail-proteomics/qdccih/en Job description We are looking for an early-career postdoc researcher to join our on-going project investigating the evolution of seminal fluid proteins in freshwater snail species (funded by Dutch Research Council, NWO). The position is for 1 year and full-time. The aim of this project is to comprehensively identify seminal fluid proteins in the great pond snail Lymnaea stagnalis, as part of our goal to examine whether seminal fluid proteins evolve rapidly in hermaphroditic species. The candidate is expected to have a strong background in proteomics, be able to conduct lab work and data analyses independently, as well as be able to communicate and collaborate with other members in this project (and our research group). Although experience and knowledge of evolutionary genetics is not required, the willingness to exchange knowledge is essential.

Your duties - extract and identify seminal fluid proteins for proteomics - analyse and interpret proteomics data - describe (transferred) proteome of the great pond snail's prostate gland

Requirements - PhD in Biology with relevant research experience - knowledge of and experience with proteomics - affinity for experiments with invertebrates - proficiency with statistical approaches and use of R - English language proficiency both in speech and in writing

What are we offering? A challenging position in a socially involved organization. On full-time basis the remuneration amounts to a minimum gross monthly salary of euro 2,836 (scale 10) and a maximum euro 4,474 (scale 10), depending on your education and experience. The job profile: is based on the university job ranking

system and is vacant for 1 FTE. The initial employment contract will affect a period of 3 months.

Additionally, Vrije Universiteit Amsterdam offers excellent fringe benefits and various schemes and regulations to promote a good work/life balance, such as: - 8% holiday allowance and 8.3% end-of-year bonus - discount on (and occasionally exclusive access to) theatre performances and courses at the Griffioen Cultural Center - a wide range of sports facilities which staff may use at a modest charge - discounts on collective insurances (healthcare- and car insurance)

About Vrije Universiteit Amsterdam The ambition of Vrije Universiteit Amsterdam is clear: to contribute to a better world through outstanding education and ground-breaking research. We strive to be a university where personal development and commitment to society play a leading role. A university where people from different disciplines and backgrounds collaborate to achieve innovations and to generate new knowledge. Our teaching and research encompass the entire spectrum of academic endeavour - from the humanities, the social sciences and the natural sciences through to the life sciences and the medical sciences. Vrije Universiteit Amsterdam is home to more than 26,000 students. We employ over 4,600 individuals. The VU campus is easily accessible and located in the heart of Amsterdam's Zuidas district, a truly inspiring environment for teaching and research.

Diversity We are an inclusive university community. Diversity is one of our most important values. We believe that engaging in international activities and welcoming students and staff from a wide variety of backgrounds enhances the quality of our education and research. We are always looking for people who can enrich our world with their own unique perspectives and experiences.

The Faculty of Science The Faculty of Science inspires researchers and students to find sustainable solutions for complex societal issues. From forest fires to big data, from obesity to medicines and from molecules to the moon: our teaching and research programmes cover the full spectrum of the natural sciences. We share knowledge and experience with leading research institutes and industries, both here in the Netherlands and abroad. Working at the Faculty of Science means working with students, PhD candidates and researchers, all with a clear focus on their field and a broad view of the world. We employ more than 1,250 staff members, and we are home to around 6,000 student.

About the Amsterdam Institute for Life and Environment You will join the new Amsterdam Institute for Life and Environment (A-LIFE) in the Faculty of Science of the Vrije Universiteit. Starting 1 January 2022, A-LIFE brings together the groups of Molecular Cell Biology, Environment & Health, and Ecological Sciences, with the aim to advance the fundamental understanding of the interplay between life and its environment. A-LIFE seeks to connect properties and emergent behaviours

— / —

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

## YaleU HumanEvolutionaryGenomics

The Reilly Lab in the Genetics Department of the Yale School of Medicine is seeking postdoctoral researchers for funded projects to understand how genetic variants impact human health, evolution, and disease. We seek to answer a fundamental question remaining in biology: "how do genetic changes lead to functional changes at the molecular, cellular, and phenotypic level?"

We're especially interested in understanding the role of non-coding, cis-regulatory elements (CREs) in the genome, with a focus on variation within them. Genome-wide association studies have identified hundreds of thousands of genetic variants associated with human health and disease, but mechanistic traction has been limited. Similarly, natural selection is a powerful driver of human genetic variation between populations and may still impact modern traits or disease (e.g. height, sickle cell anemia).

The lab has three main foci: - Developing new, large-scale experimental screens to perturb CREs, and new computational tools to model their function - Identifying evolutionary adaptive alleles likely impacting modern human phenotypes - Applying these functional genomic tools to phenotypically interesting loci important for human disease and evolution.

We're looking for inquisitive, creative, and passionate researchers to join our team. We're a multi-disciplinary group with a variety of backgrounds including genomics, math, biochemistry, machine-learning, and population genetics. Similar backgrounds are a good fit, but many PhD or MDs interested in human evolution, building new genomic tools, or analyzing complex data would find a project in our lab. The lab prides itself on building an inclusive, supportive, and collaborative environment, deeply committed to the tailored professional development of all of the lab's trainees.

Find the job posting here: https://www.reilly-lab.com/news/hiring-postdoc-positions. Interested applicants should email Steve (contact info: reilly-lab.com), briefly describing your scientific interests, how they intersect with our lab's interests, and include your CV. Post-doctoral applicants should also submit a Diversity, Equity, and Inclusion statement and include copies of their major manuscripts.

Ava Mackay-Smith (she/her/hers) Research Associate & Lab Manager, Reilly Lab < https://www.reilly-lab.com/ > Yale School of Medicine, Department of Genetics

Ava Mackay-Smith <amackays@wellesley.edu>

## YorkU BeeEcologyEvolution

*Behavioural Genomics and Molecular Ecology Positions (2 postdoc positions)*

The Rehan Lab (www.rehanlab.com) is hiring 2 postdoc positions to study 1) behavioural genomics of maternal care and 2) molecular ecology using museomics. The Rehan lab is a collaborative group of researchers, staff, and students focusing on bee behaviour, ecology and evolution. The candidates will join a vibrant team of integrative biologists passionate about social evolution and wildlife conservation.

*Behavioural Genomics Position*

This postdoc will examine existing data on time course transcriptomics to determine the effects of maternal care on offspring developmental plasticity. The candidate will have the opportunity to develop additional research projects on molecular evolution and behavioural genomics. The successful candidate will have a strong background in comparative genomics and bioinformatics. Analytical and writing skills as well as familiarity with transcriptomic and network analyses are highly desirable.

*Molecular Ecology Position * The bee holobiome incorporates species' population genomics, microbiomes and environmental DNA. This postdoctoral researcher will examine wild bee DNA to document species ranges, isolation by environment and ecological stressors. This postdoc will examine wild bee symbioses and potential pathogens in their environments using combined landscape ecology and museomics approaches. The candidate should have experience with bioinformatics and analysis of genomic data. Experience with bees, microbiome, and/or population genetics would be an asset.

York University is an Equal Opportunity Employer and encourages applications from women and underrepresented groups. If interested, please send a CV, names of three references, and a short statement of interests to Sandra Rehan *sanrehan@y <sandra.rehan@unh.edu>orku.ca* by Dec. 17, 2021. The Postdoctoral positions are available for two years (with flexible start dates able to start as soon as January 2021) and renewable up to three years with successful progress and performance. – Sandra Rehan, FLS, FRES | Associate Professor of Molecular Evolution Department of Biology | Faculty of Science | York University 4700 Keele Street | 203D Lumbers Building | Toronto ON | M3J 1P3 Email: sanrehan@yorku.ca | Web: www.rehanlab.com | Tel: 905-598-0125

Sandra Rehan <sandra.rehan@gmail.com>

# WorkshopsCourses



## BangaloreIndia PopGen Jan17-28

Dear Colleague, We are happy to announce the fifth edition of the Bangalore School on Population Genetics and Evolution.https://www.icts.res.in/program/-popgen2022 The school aims to expose students and researchers from diverse backgrounds including biology, computer science, mathematics and physics to the basics and forefront of current research in evolution.

Note that there is no registration fee for participating in this program.

Dates: January 17-28, 2022Venue: ICTS Bangalore, India (Hybrid)Application deadline: November 21, 2021

Lecturers:Daniel Bolnick Michael LynchSusanna Manrubia Guillaume MartinDavid NelsonOrganizers: Deepa Agashe, Kavita Jain

jain@jncasr.ac.in

## MNHN Paris BigDataTaxonomy Mar21-25

The course “Integrative taxonomy in the ”big data“ era” will be from the 21st to the 25th of March, 2022 at the MNHN of Paris, France.

The course is in English. To register, please fill the form on the website of the course (https://sites.google.com/-site/coursbarcode/home) before the 10th of January, 2022.

If you have any question, please contact: Nicolas Puillandre (puillandre@mnhn.fr) Sarah Samadi (sarah@mnhn.fr)

Nicolas PUILLANDRE <nicolas.puillandre@mnhn.fr>

## Online AdvancedProgrammingInR Jan17-21

Dear all,

the 4th edition of the Physalia course on “Advanced programming in R for biologists” will be held online in January, 17th-21st.

Course website: ( https://www.physalia-courses.org/-courses-workshops/course47/ )

Instructor: Dr. January Weiner 3rd (Staff scientist, Berlin Institute of Health, Germany).

This is a very practical course that aims at giving the students abilities in R programming that go beyond basic R usage. This includes both learning important frameworks as well as tips and tricks and coding style.

Participants will learn:

1) how to import, clean, reshape and visualize their data in R using tidyverse

2) create complex/customized graphics in R

3) how to code in R (good coding practices and common fails)

4) create their own R packages

5) build reproducible reports with RMarkdown

6) create their Github page to share your code & materials with others.

For more information, please see: https://www.physalia-courses.org/courses-workshops/course47/ Our other online courses: https://www.physalia-courses.org/courses-workshops/ Should you have any questions, please feel free to contact us: info@physalia-courses.org

All the best,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR info@physalia-courses.org mobile: +49 17645230846 Follow us on ( https://twitter.com/Physacourses )

"info@physalia-courses.org" <info@physalia-courses.org>

## Online DNABarcoding Jan17-Mar13

Introduction to DNA Barcoding

January 17 - March 13, 2022

Online

Instructor: Dr. Dirk Steinke

Shara Shara Inotay | Manager, Program Development Open Learning and Educational Support lUniversity of Guelph Room010 Johnston Hall l 50 Stone Road E lGuelph ON N1G 2W1

T: 519-824-4120 ext.52913 | E: sinotay@uoguelph.ca | www.opened.uoguelph.ca Shara Inotay <sinotay@uoguelph.ca>

## Online EcoPhylogenetics Feb7-11

Introduction to eco-phylogenetics and comparative analyses using R (ECPH01)

https://www.prstatistics.com/course/introduction-to-eco-phylogenetics-and-comparative-analyses-using-r-ecph01/ Please feel free to share!

7th - 11th February 2022

Course overview:

In this five day course, we provide an introduction to eco-phylogenetics and comparativeanalyses using R. We begin by providing an overview on the use of phylogenies as a tool forevolutionary biologists and modern techniques to deal with large phylogenies and to incorporate phylogenetic uncertainty in the analyses (day 1). We then cover some of themost relevant eco-phylogenetic analyses and provide examples from the community to the macro-ecological scale (day 2-3). Finally, we introduce a diversity of classic and modern phylogenetic comparative methods to consider the historical relationship of lineages ineco-evolutionary research, including models of trait evolution, analysis of cladediversification and the use of phylogenies in spatial distribution models among others (day 4-5).

email oliverhooker@prstatistics.com with any questions

Course program

Monday 7th - Classes from 08:00 to 16:30

- Introduction and a brief phylogenetic primer. Basic terminology for non- phylogeneticists, phylogenetic inference (quick overview), phylogenies aevolutionary hypotheses.

- Working with phylogenies. Newick format and structure of the R phylo object. Elementary operations on phylogenies (pruning, resolving polytomies, sticking species). Visualizing large phylogenies.

- Building purpose-specific mega-trees from extant trees and incorporating phylogenetic uncertainty. Software phylocom, V.PhyloMaker, SUNPLIN and randtip R package.

Tuesday 8th - Classes from 08:00 to 16:30

- Introduction to the eco-phylogenetic framework, classical conception and posterior modifications.

- Phylogenetic alpha diversity (how much? how different? how regular?). Community data matrices, null models, applications to biodiversity conservation.

- Phylogenetic beta diversity. The turnover and nestedness component of beta diversity.

Wednesday 9th - Classes from 08:00 to 16:30

- Incorporating the exact branching pattern of phylogenies into eco-phylogenetic analyses.

- Spatial phylogenetics. RPD, RPE and CANEPE analysis.

- Overview of functional trait ecology. Functional richness, evenness and divergence.Community weighted means.

- Phylogenetic imputation of trait datasets. Bounding prediction uncertainty using evolutionary models.

Phylogenies as a null model in ecology.

Thursday 10th from 08:00 to 16:30

phylogenetic comparative method, from independent contrasts to sophisticated modelling.

of phylogenetic signal and models of evolution: rationale, common- practice, and new trends.

evolution and ancestral trait reconstruction.

of diversification, speciation and extinction rates in a geographic context.

Friday 11th - Classes from 08:00 to 16:30

need to account for phylogenetic relationships in models.

common phylogenetic modelling approaches: PGLS, PGLMM, BayesianPMM.

phylogenies in the geography: how to combine phylogenies with species distribution models.

Oliver Hooker PhD. PR statistics

Oliver Hooker <oliverhooker@prstatistics.com>

## Online EnvironmentalMetagenomics Apr4-8

Dear all,

registrations are now open for the 2nd edition of the Physalia course on Environmental Metagenomics, which will take place ONLINE in April, 4th-8th: ( https://www.physalia-courses.org/courses-workshops/-environmental-metagenomics/ )

Instructors: Dr. Antti Karkman and Dr. Igor S Pessi (University of Helsinki, Finland).

During this one week course you will learn state-of-the-art bioinformatic approaches to analyse metagenomic data. We will cover both read- and assembly-based methods, focusing on the strenght of each of these methods depending on the research question. We will use data from both short- (e.g. Illumina) and long-read (e.g. Nanopore) sequencing platforms, as it improves dramatically metagenome-assembled genomes (MAG) assembling and binning compared to short-read-only methods.

By completing this course, participants will:

- Understand the basics of metagenomic sequencing and bioinformatic approaches to the analyis of metagenomic data

- Be able to plan and execute a metagenomic sequencing project

- Have an up-to-date knowledge on the bioinformatic tools and best practices for the analysis of metagenomes

- Be able to choose the right tools and approaches to answer your specific research question

- Have confidence to learn new methods needed to answer your research question

Program: https://www.physalia-courses.org/courses-workshops/course55/curriculum55/ The full list of our online courses can be found here: ( https://-www.physalia-courses.org/courses-workshops/ )

All the best,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR info@physalia-courses.org mobile: +49 17645230846 Follow us on ( https://twitter.com/Physacourses )

“info@physalia-courses.org” <info@physalia-courses.org>

## Online EvolutionBehaviour

Hello,

We are organizing an online course, which is free of charge, is offered to students and young researchers (Master students, PhD students, Post docs) in behavioural sciences and related disciplines. It will consist of six plenary talks by international senior researchers.

http://leec.univ-paris13.fr/images/IFE.2021.html
Cédric Zimmer

MaÃtre de conférences / Associate professor Laboratoire d’Ethologie Expérimentale et Comparée, UR 4443

UNIVERSITÃ SORBONNE PARIS NORD

Institut Galilée, bâtiment C, 4Âº étage Campus de Villetaneuse 99, avenue Jean-Baptiste Clément - 93430 Villetaneuse, France

cedriczimmer.weebly.com

cedric.zimmer@univ-paris13.fr

## Online GettingTheMostOutOfR Feb7-10

Dear all,

we still have a few places left on the Physalia course "Getting the most out of R", which will be held online in February (7th-10th).

Many scientists start using R for very specific purposes with little training in computer science, data organization, and software development. Even advanced users may bypass important tools and abstractions which can ultimately lead to bad habits and wasting time. Get the most of R by exploring topics that usually fall outside of data analysis and visualization curricula. This course will cover blind spots in existing materials by working through the intermediate steps in various pairs of problems and solutions that often get overlooked because of assumed knowledge.

R users in scientific fields with a moderate amount of R and RStudio experience, for the most part self-taught, overwhelmed by the amount of resources, and interested in becoming more efficient.

Course website: ( https://www.physalia-courses.org/-courses-workshops/gmr/ )

The full list of our online courses can be found here: ( https://www.physalia-courses.org/courses-workshops/ )

All the best,

Carlo

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"info@physalia-courses.org" <info@physalia-courses.org>

## Online IntroMacroevolUsingPhylogenies Jan17-21

Dear colleagues,

You can register now for the 9th edition of Transmitting Science course "Introduction to Macroevolutionary Analyses Using Phylogenies"

Format: Live Online (synchronous). Places are limited to 15 participants.

Dates and schedule: January 17th-21st, 2022 from 15:00 to 19:00 (Madrid time zone). 20 hours of online live lessons, plus 20 hours of recorded classes and assignments.

Instructor: Dr. Juan L. Cantalapiedra (Universidad de Alcalá, Spain)

More information and registration: https://-www.transmittingscience.com/courses/evolution/-introduction-macroevolutionary-analyses-using-phylogenies/ Course Overview Phylogenetic trees have changed the way we study and understand life on Earth. Taking phylogenetic information into account in our analyses is critical to account for the non-independence of biological data. Also, phylogenies allow us to get a deep-time perspective of the processes that have shaped the evolutionary history of groups, including diversification and trait evolution. This course will introduce participants to the use, modification and representation of phylogenetic trees. Also, we will focus on the use of phylogenetic information to reconstruct ancestral characters and biogeographic histories, using different phylogenetic comparative methods. This course will also tackle trait evolution modelling and the assessment of phylogenetic signal. Finally, we will learn about the shape of phylogenetic trees and its evolutionary causes, and how to estimate the rates of diversification throughout the history of groups. Participants are encouraged to bring their data sets to use in the practical classes. The course includes an optional first introductory day to basic R. Important note: Please bear in mind that this course is not about reconstructing (building) phylogenetic trees. Software: Mesquite, FigTree, R (ape, TreeSim, TreePar, Geiger, OUwie, BioGeoBEARS).

Best wishes

Sole

– Soledad De Esteban-Trivigno, PhD. (she/her) Scientific Director www.transmittingscience.com Twitter: @soledeesteban Instagram: @soledaddeesteban Researchgate: https://www.researchgate.net/-profile/Soledad_De_Esteban-Trivigno ORCID: https://-/orcid.org/0000-0002-2049-0890 Soledad De Esteban Trivigno <soledad.esteban@transmittingscience.com>

## Online LandscapeGenetics Jan12-May4

Online Landscape Genetics Graduate Course Jan 12 - May 4, 2022, Wed 8:30 - 10:30 PST (also can be taken at any time using taped lectures) Cost $500 individuals, $1000 Groups

Course Organizers: Helene Wagner, Nusha Keyghobadi, Melanie Murphy, and Lisette Waits

Co-Instructors: Jeff Bowman, Katalin Csilléry, Cassidy D'Aloia, Marie-Josee Fortin, Caren Goldberg, Stephanie Manel, Yessica Rico, Sean Schoville, Travis Seaborn, Steve Spear, Kathy Zeller

Course description This course on Landscape Genetics provides a unique opportunity for interdisciplinary training and provides an overview of the field of landscape genetics. The course caters to students in basic and applied ecology, conservation and population genetics, landscape ecology, evolutionary biology and conservation biology. A key objective of landscape genetics is to study how landscape modification and habitat fragmentation affect organism dispersal and gene flow across the landscape. Landscape genetics requires highly interdisciplinary specialized skills making intensive use of technical population genetic skills and spatial analysis tools (spatial statistics, GIS tools and remote sensing). Even when students receive disciplinary training in these areas, educational programs often lack the necessary linkage and synthesis among disciplines. This linkage can only be accomplished after experts from each discipline work together to develop guiding principles for this new research area.

Landscape Genetics will be concurrently offered at multiple universities across the globe, giving students the opportunity to learn from international experts and work with peers from outside institutions. For students who are not members of the participating institutions, we are offering a web-based online course to reach a broader audience. Each course meeting will start with a live web-cast lecture (no special software required) by an expert on the topic that introduces foundations and methods and highlights points for discussion in local seminar groups. After breaking out into local course group discussion (including a discussion group for online course students), a web-based discussion across campuses will wrap up the weekly topic. Students who are unable to make it to live-cast of lectures can view taped lectures. In addition, students can choose to participate in an optional lab section using R and/or interdisciplinary group term projects with web-based collaboration across institutions. The final two options are provided to help students develop analytical skills in Landscape Genetics. Students who participate in group projects will have the option of applying to attend a project synthesis meeting in Idaho in mid to late May.

See more information here: https://sites.google.com/-site/landscapegeneticscourse/ Course Textbook: Landscape genetics: Concepts, methods, applications. 2015. Balkenhol, Cushman, Storfer, Waits, eds, Blackwell.

Registration Deadline - Jan 3, How to register?

Use this link: https://docs.google.com/forms/-d/e/1FAIpQLScw_IIpr_7x7xysH0UMzMe34N-om0iWbAtVO2AfXghQdzi2Zg/viewform?usp=sf_link Faculty who would like to add a local section of the course at their university can register as a group or multiple students at one institution can register as a group. For faculty who set up local sections, we would expect you to set up course credit at your institution, participate in the course with the students and grade assignments (we provide answer keys for assignments). For individual students or students in small groups ( <4) without a local instructor who need course credit, you can have your advisor set up an independent study course at your home institution and turn in specific assignments during the semester that will be evaluated by our online instruction team. This can be set up as pass/fail or grading on A-F scale. It is easiest for us if you pick the pass/fail option. In the US system, this would count as a 2 credit course for the lecture portion, and students who choose to do all labs or participate in a group project would receive an additional credit.

You will be invoiced for the course in early January and can pay by credit card or check.

Class Schedule:

12-Jan Week 1 Introduction Spear 19-Jan Week 2 Basics of Landscape Ecology Zeller 26-Jan Week 3 Basics of Population Genetics Waits 02-Feb Week 4 Basics of Metapopulation Genetics Keyghobadi 09-Feb Week 5 Basics of Study Design Fortin 16-Feb Week 6 Basics of Adaptation and Quantitative Genetics Csillery 23-Feb Week 7 Basics of Spatial Data Analysis Wagner 02-Mar Week 8 Simulation and Modeling Seaborn 09-Mar Week 9 Assignment and Clustering Methods Schoville 16-Mar Week 10 Resistance Surface Modeling Bowman 23-Mar Week 11 Adaptive Landscape Genetics Manel

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

## Online MetaAnalysisInR Mar7-10

Dear all,

registrations are now open for our course "Meta-analysis in R".

Dates: online, 7-10 March

Course website:https://www.physalia-courses.org/courses-workshops/metain-r/ We begin with an overview of the systematic review and meta-analysis process, including problem specification, search methods, data extraction, quality evaluation, statistical analysis, model interpretation, and critique, and results. Next, we will examine the parameter estimation approach to statistical analysis (effect sizes, confidence/uncertainty intervals) and explore how this approach can be used to quantify the results of individual studies and the whole literature. Next, we will explore how statistical artifacts, such as sampling error, measurement error, and bias, can create the illusion of inconsistency in findings across studies.

Following these basic principles, we will explore methods for statistically cumulating findings across studies to reduce biases using random-effects meta-analysis and meta-regression. We will examine methods for moderator analysis (stratified subgroups, meta-regression), interpretation of average effects and heterogeneity, and corrections for numerous statistical artifacts (sampling error, measurement error, range restriction, and selection effects). Throughout, we will consider examples for how to interpret results and present them using tables and data visualization.

Next, we will examine methods for model diagnostics and sensitivity analyses related to outliers and publication bias. We will explore modern methods for detection and quantification of publication bias, as well as consideration of problems associated with older approaches.

Finally, we discuss meta-analysis as part of the broader systematic review process and introduce principles for planning and carrying a systematic review in a reliable, transparent, and reproducible manner. Resources for planning a systematic review and extracting results from studies will be provided.

Our other online courses:https://www.physalia-courses.org/courses-workshops/ Should you have any questions, please feel free to contact us: info@physalia-courses.org

Best regards,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR info@physalia-courses.org mobile: +49 17645230846 Follow us on Twitter

"info@physalia-courses.org" <info@physalia-courses.org>

## Online PaleobiologyInR Feb21-25

Dear all,

registrations are now open for the Physalia-course "Introduction to Analytical Paleobiology: Fossil Record Biases, Diversity, & Biogeography"

Dates: online, 21st-25th February

This course will provide a complete guide to basic analytical techniques for examining macroevolutionary and biodiversity patterns using online databases (primarily The Paleobiology Database), from instruction on data collection, handling, and curation, to plotting and publishing results.

Course website: https://www.physalia-courses.org/courses-workshops/paleobiology-in-r/ Best regards,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR info@physalia-courses.org mobile: +49 17645230846 Follow us on Twitter https://twitter.com/Physacourses

"info@physalia-courses.org" <info@physalia-courses.org>

## Online VariantDetection Dec6-9

The University of Connecticut's Computational Biology Core is offering a workshop on short variant detection focused on whole genome sequencing data. We will introduce both short read and long read approaches for

detecting short variants (i.e. SNPs and small indels). The workshop will take place over 4 days for three hours each day (3.5 on the first day).

Dates: December 6 - 9 (4 days)

Time: Monday: 8:30am - 12:00pm EDT Tuesday-Thursday: 9:00am - 12:00pm EDT

Location: Online

Cost: UConn affiliates: $350 External: $483

Workshop schedule

Day 1: Introduction to Linux, High performance computing

Day 2-4 : Introduction, reference genome preparation, download and QC of sequence data, sequence alignment, QC and post-processing, short variant detection using four pipelines with both short and long reads, filtering and comparing variant sets, functional annotation, visualization.

Registration

To register, please follow this link: https://forms.gle/-QWuyXZkUPDWiq1Z16 Workshop FAQ

Who should attend?

Anyone with keen interest and desire to learn how to detect genetic variation in high throughput sequencing data. Prior course participants have included faculty, post docs, grad students, advanced undergraduates, staff, and industry researchers.

What are the prerequisites?

Prior bioinformatic experience is not required. We have dedicated the first day of workshop to the basics of Linux and high performance computing.

What do I need?

You will need your own laptop to use, have a recent version of R, RStudio installed, and some other applications. We will send you details of software and installation instructions with your registration acknowledgement email.

Can I bring my own data?

We will provide experimental datasets for use during the workshop, as this helps to keep the workshop moving. There will be time, however, to discuss your own datasets and how you might work with them outside of the workshop.

How much does it cost?

The registration fee is $350/$483 for UConn affiliates/External participants. It is payable at the time of registration with credit card or KFS (for UConn affiliates).

Where is the workshop?

It will be held on Zoom, and will run from 9:00am (8:30am on day 1) to 12:00pm EDT on the date indicated.

How do I apply?

All registration is "first-come, first-served." There is no application process. Sign up as soon as possible to ensure your place in the workshop.

Questions?

If you have any questions, please don't hesitate to contact us at cbcsupport@uconn.ed

noah.reid@uconn.edu

## UNorthCarolina Raleigh GenomeAssemblyAnnotation May23-25

Basic Assembly and Annotation of Genomes workshop for May 2022.

This workshop is designed for individuals who would like to learn how to use DNA sequence data to generate an annotated genome. We invite post-baccalaureates, post-doctoral students, other academics and non-academic-track individuals. We anticipate that students from a broad array of disciplines will participate. This includes, conservation biologists, phylogeneticists, evolutionary biologists, human and plant pathologists, participants in many health professions.

This workshop will be largely hands on training with Teaching Assistants working with you in small groups. There will be 4 sessions, each preceded by a few short lectures by experts in the field. Tuition and boarding fees are not yet set but it will be affordable. You may leave your contact information at our website: https://-tarheels.live/baags/ Important: The dates of our workshop are May 23 to May 25, 2021.

Limited seating ; sign up early!

"Jones, Corbin D" <cdjones@email.unc.edu>

# Instructions

Instructions: To be added to the EvolDir mailing list please send an email message to Golding@McMaster.CA. At this time provide a binary six letter code that determines which messages will be mailed to you. These are listed in the same order as presented here — Conferences; Graduate Student Positions; Jobs; Other; Post-doctoral positions; WorkshopsCourses. For example to receive the listings that concern conferences and post-doctoral positions this would be 100010. Messages are categorized on the basis of their subject headings. If this subject heading is not successfully parsed, the message will be sent to me at Golding@McMaster.CA. In addition, if it originates from 'blackballed' addresses it will be sent to me at Golding@McMaster.CA. These messages will only be read and dealt with when I have time. The code 000000 has all channels turned off and hence gets only a once monthly notifcation of the availability of a monthly review pdf file.

To be removed from the EvolDir mailing list please send an email message to Golding@McMaster.CA. Note that 'on vacation', etc, style messages are automatically filtered and should not be transmitted to the list (I hope), but should you wish to avoid the e-mail's your code can be temporarily changed to 000000.

To send messages to the EvolDir direct them to the email evoldir@evol.biology.McMaster.CA. Do not include encoded attachments and do not send it as Word files, as HTML files, as LaTeX files, Excel files, etc. ... plain old ASCII will work great and can be read by everyone. Add a subject header that contains the correct category "Conference:, Graduate position:, Job:, Other:, Postdoc:, Workshop:" and then the message stands a better chance of being correctly parsed. Note that the colon is mandatory.

The message will be stored until the middle of the night (local time). At a predetermined time, the collected messages will be captured and then processed by programs and filters. If the message is caught by one of the filters (e.g. a subject header is not correctly formated) the message will be send to me at Golding@McMaster.CA and processed later. In either case, please do not expect an instant response.

# Afterword

This program is an attempt to automatically process a broad variety of e-mail messages. Most preformating is collapsed to save space. At the current time, many features may be incorrectly handled and some email messages may be positively mauled. Although this is being produced by LaTeX do not try to embed LaTeX or TeX in your message (or other formats) since my program will strip these from the message.