
E v o l D i r

January 1, 2025

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

Foreword

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

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

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



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Conferences

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Beijing Hybridization Jul20-24

dear EvolDir Community,

We are inviting abstract submissions for our symposium, "The roles of hybridization and introgression in evolution" (Symposium #14) at the 2025 Annual Meeting of the Society for Molecular Biology & Evolution, July 20-24 in Beijing China.

Details are below:

SMBE 2025 - Annual Meeting of the Society for Molecular Biology & Evolution, 2025

<http://www.smbe2025.org/> https://smbe2025.scimeeting.cn/en/web/index/25070_2131033

The roles of hybridization and introgression in evolution

Organizers

Jun Chen, Zhejiang University
Martin Lascoux, Uppsala University

Invited Speaker

James Mallet, Harvard University

The last decades have witnessed an increase interest about introgression and its role in evolution and it is today clear that introgression has had a significant influence on many species' evolutionary trajectories by introducing large numbers of mutations into the genome of the host species. Most of these mutations are deleterious or neutral but a few are beneficial and may contribute to adaptation. Estimating introgression levels along the genome remains a difficult task and various methods have been, or are being, developed based on phylogenetic conflicts between gene trees and species tree, or,

more recently, based on the ancestral recombination graph. A first aim of the symposium will be to review recent progress in the estimation of the amount and distribution of introgression along the genome. A second aim of the symposium will be to present recent advances in our understanding of the molecular mechanisms contributing to the insertion of the introgressed fragments and their maintenance, including adaptation. Finally, gene flow is generally perceived as a homogenizing force that prevents populations from diverging and speciation to occur. Nonetheless, extensive hybridization and introgression have been detected between hundreds of animal and plant species. Hence, a final aim of the symposium will be to evaluate the relationship between introgression and speciation.

Best regards,

Ruirui Fu

Plant Ecology

College of Life Sciences

Zhejiang University

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Zhejiang Province

China

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**Beijing SMBE
GenomeArchitectureEvolution
Jul20-24**

Dear Colleagues,

We are inviting abstract submissions for our symposium, “Novel Insights on Genome Architecture Evolution” (Symposium #8)

at the 2025 Annual Meeting of the Society for Molecular Biology & Evolution, July 20-24 in Beijing China.

Details are below:

SMBE 2025 - Annual Meeting of the Society for Molecular Biology & Evolution, 2025 smbe2025.scimeeting.cn < https://smbe2025.scimeeting.cn/en/web/index/-25070_2131033 >

Novel Insights on Genome Architecture Evolution

Organizers: Carol Eunmi LEE, University of Wisconsin-Madison, USA Sean Chun-Chang CHEN, Taipei Medical University

Invited Speaker: Chris Jiggins, University of Cambridge

The rapid expansion of genomic data is revolutionizing our ability to make unprecedented discoveries regarding patterns, mechanisms, and consequences of genome architecture evolution. With comprehensive genome sequencing across diverse taxa, we can now address fundamental questions on how large-scale structural variation in genomes arise and how they might impact adaptive potential and speciation. For instance, we are only beginning to uncover how chromosomal rearrangements, such as fusions, fissions, and inversions, contribute to adaptation and speciation. In addition, we are gaining new insights into how allopolyploid hybridization in plants results in novel genome architectures and potentially leads to highly invasive species. Moreover, we can now explore how genome architecture evolution leads to morphological and functional innovations, such as the evolution of animal body plans. Thus, this symposium will assemble researchers who investigate the dynamics of genome architecture evolution in multicellular organisms. We especially welcome talks that focus on large scale genomic comparisons that delve into mechanisms underlying genome structural variation and evolution and impacts of that variation on responses to selection or the evolution of novelty. Conceptual and theoretical talks that provide novel perspectives are also welcome.

As such, this symposium aims to highlight the importance of genome architecture in shaping evolutionary trajectories and adaptive potential.

Carol Eunmi LEE <carollee@wisc.edu>

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**BroadInst Boston Mutations
Apr23-25**

Dear Colleagues,

The 2025 Mutations in Time and Space conference will be taking place over 23-25 April, this time at the Broad Institute of MIT and Harvard in Boston, USA.

We'll be focussing on mutational processes across various biological scales and already boast a stellar line up of speakers- you can find out more here: <https://broadinstitute.swoogo.com/mits2025/-5970756?uid=6731f58c42a65> The deadline for abstract submission is 17th January 2025, and there are plenty of platform presentations available to those submitted.

See you there,

Craig Anderson MRC Human Genetics Unit Institute of Genetics and Cancer University of Edinburgh, UK <https://www.ed.ac.uk/profile/craig-anderson> Confirmed Speakers:

Melissa Davis, Morehouse School of Medicine Mike Stratton, Wellcome Sanger Institute Kelley Harris, University of Washington Dimitri Petrov, Stanford University Martin Taylor, MRC Human Genetics Unit, University of Edinburgh Molly Przeworski, Columbia University Dan Landau, New York Genome Centre Vijay Sankaran, Boston Children's Hospital N oria L pez-Bigas, Institute for Research in Biomedicine Jimmy Bennett, Seattle Children's Hospital Elinor Karlsson, Broad Institute of MIT and Harvard Kamila Naxerova, Harvard University Alex Cagan, Cambridge University Tim Coorens, Broad Institute of MIT and Harvard Bob Handsaker, Broad Institute of MIT and Harvard

Organisers: Tim Coorens, Broad Institute of MIT and Harvard Kristin Ardlie, Broad Institute of MIT and Harvard Craig Anderson, University of Edinburgh Michelle Trenkmann, Nature Kamila Naxerova, Harvard Medical School Raheleh Rahbari, Wellcome Sanger Institute Martin Taylor, University of Edinburgh John Grey Monroe, University of California, Davis Brady Walker, Broad

Institute of MIT and Harvard

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Craig Anderson <Craig.Anderson@ed.ac.uk>

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Granada Spain
MathematicalComputationalBiol
May12-16

Mathematical and Computational Evolutionary Biology (MCEB) Granada (Spain), May 12-16th, 2025

<https://mceb2025.sciencesconf.org/> MCEB will take place in Granada, Spain for its 2025 edition. The meeting will put the emphasis on methods and models for phylogenomics and population genomics. Beyond this year's themes, general concepts, models, methods and algorithms will be presented and discussed, just as in the previous editions of MCEB. As usual, the meeting will bring together researchers originating from various disciplines: mathematics, statistics, computer science, phylogenetics, population genetics, molecular epidemiology, biodiversity and macroevolution... Keynote speakers will introduce a field of research and discuss their own work in this field. Afternoon will be for short presentations and posters, with plenty of time for discussions. We will stop early every day, thus leaving time for other activities.

KEYNOTES:

** Sophie Abby - Evolution of biosynthetic pathways in Bacteria

** Richard Durbin - Population genome variation - going beyond SNPs

** Lisa Pokorny Montero - Genomic approaches to the study of plant evolution

** Harald Ringbauer - Advanced ancient DNA analysis

** Kristina Wicke - Inference of phylogenetic networks

PRACTICAL INFORMATION

** Place: "Carmen de la Victoria" and "Corrala de Santiago", Granada, Spain.

** Dates: May 12-16th, 2025. The conference will begin Monday evening and will end at about 3pm on Friday.

** Fees: Between 650 euro to 850 euro . Fees will vary depending on the type of room, shared (for students) or individual. They include accommodation for four nights with breakfast, lunches, coffee breaks, two dinners and drinks around posters from Monday night until Friday lunchtime included.

** Deadline for abstract submission: February 21, 2025.

** Notification of acceptance: March 15, 2025.

Olivier GASCUEL <olivier.gascuel@mnhn.fr>

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Montpellier EvolutionaryEcol
Aug11-15

english below -

Bonjour Ã— toutes et Ã— tous,

Nous sommes ravis d'annoncer la 17e édition du colloque international Ecology & Behaviour (E&B), qui se tiendra au Centre d'Ãcologie Fonctionnelle et Ãvolutive (CEFE) Ã— Montpellier du 11 au 15 aoÃ»t 2025.

Ce colloque permet aux jeunes chercheur.se.s (masters, doctorants, post-docs) de présenter leurs travaux (présentation orale ou poster) devant un large public, tout en favorisant les échanges et les connexions au sein de la communauté scientifique internationale.

Particularité du colloque : il est gratuit (aucun frais d'inscription, de logement ou de restauration la journée) ! Seuls les frais de transport et les repas du soir sont Ã— votre charge.

Les thématiques de cette année incluent :

Ãcologie du mouvement

Ãcologie évolutive

Ãcologie fonctionnelle

Ãcologie comportementale

Ãcologie de la conservation

Ãcologie et société

Chaque session sera introduite par des chercheur.se.s invité.e.s de renom.

La soumission des abstracts pour une présentation orale (10 min) ou un poster ouvrira du 15 janvier au 28 mars 2025 sur notre site : <https://ecobhvr2025.sciencesconf.org>. Assurez-vous de vous inscrire seulement si vous êtes certain.es de pouvoir être présent.es.

Pour rester informé.e.s :

Suivez-nous sur Bluesky : @ecobhvr2025

Inscrivez-vous à la liste de diffusion : <https://listes.services.cnrs.fr/wws/subscribe/eco.bhvr> Site web : <https://ecobhvr2025.sciencesconf.org> Pour toutes questions : eco.bhvr.orga@services.cnrs.fr

Et n'hésitez pas à partager cette annonce autour de vous !

Bonne nuit, L'équipe d'organisation d'E&B

Dear all,

We are pleased to announce the 17th edition of the international conference Ecology & Behaviour (E&B), to be held at the Centre d'écologie Fonctionnelle et évolutive (CEFE) in Montpellier from August 11 to 15, 2025.

This conference offers young researchers (master's students, PhDs, post-docs) the opportunity to present their work (oral presentation or poster) to a broad audience, fostering exchanges and connections within the international scientific community.

Why join us? The conference is entirely free of charge (no registration fees) only your travel expenses and your dinners are required.

Themes for this year:

Movement Ecology

Evolutionary Ecology

Functional Ecology

Behavioral Ecology

Conservation Ecology

Ecology and society

Each session will be introduced by renowned invited speakers.

Abstract submissions for 10-minute oral presentations or posters will open from January 15th to March 28th via our website: <https://ecobhvr2025.sciencesconf.org>. Stay updated:

Follow us on Bluesky: @ecobhvr2025

Subscribe to our mailing list: [https://-](https://listes.services.cnrs.fr/wws/subscribe/eco.bhvr)

listes.services.cnrs.fr/wws/subscribe/eco.bhvr

For questions or more information: eco.bhvr.orga@services.cnrs.fr

Feel free to share this announcement with your network!

We look forward to welcoming you, The E&B Organizing Team

Laurine MATHIEU <laurine.mathieu@cefe.cnrs.fr>

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Online ESEB InternalConflictsSTN Dec12

Dear colleagues,

We would like to invite you to the next online seminar for the "Internal Conflicts and Organismal Adaptation" Special Topic Network (STN) funded by the European Society for Evolutionary Biology, which will take place on December 12th at 16:00 UTC. Our speakers for this seminar are:

Michelle Hays (Stanford University): Learning to live with a killer: how coevolved *Saccharomyces cerevisiae* become toxin resistant

Bryan Gitschlag (Cold Spring Harbor Laboratories): Levels of conflicts: within cells and across tissues

We expect the meeting to take approximately 1.5 hours.

Meeting details:

Link: <https://georgetown.zoom.us/j/92886325329>

Date: December 12th, 2024

Time: 16:00 UTC

If you would like to get on our mailing list and take part in our upcoming events, please visit our website (<https://internalconflictsstn.wordpress.com/>) for more information.

Sincerely,

Manus Patten, Arvid Ågren, Martijn Schenkel, and Nina Wedell

The Internal Conflicts and Organismal Adaptation STN ESEB-funded Special Topic Network "Internal Conflicts and Organismal Adaptation" <https://internalconflictsstn.wordpress.com/> <https://eseb.org/prizes-funding/special-topic-networks/> internalconflictsstn@gmail.com

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golding@mcmaster.ca<mailto:golding@mcmaster.ca>)

Sheffield UK FisherMemorialLecture Jan8

The 42nd Fisher Memorial Lecture will be delivered at the Population Genetics Meeting in Sheffield at 5pm on January 8, 2025

The speaker is Dr Charles Rotimi of the National Human Genome Research Institute.

His title is: The complex and dynamic evolutionary history of African genomes in health and disease.

The lecture will be live streamed and recorded.

To register for online attendance, please use the online form <https://forms.gle/uvgtoszqPsTwUvha7>

For further information, see: <http://www.senms.uk/FisherWeb.html> and <https://mlindner0.github.io/PopulationGenetics58Website/>
Brian.Charlesworth@ed.ac.uk

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Brian Charlesworth <Brian.Charlesworth@ed.ac.uk>

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Tubingen SMBE BiologicalNoise Jun3-5

An SMBE satellite meeting entitled “The Origin, Maintenance and Evolution of Biological Noise” will take place in Tübingen, Germany, June 3 - 5, 2025.

Details can be found here: <https://pallareslab.github.io/bionoise2025/index.html> Noise is a fundamental, yet long understudied, aspect of biology. The goal of this symposium is to bring together researchers working on noise from different fields (e.g., theoreticians, molecular biologists, population geneticists, system biologists, philosophers) in order to establish the common principles guiding the origin, maintenance, and evolution of biological noise at distinct organization levels, from molecules, to transcriptional networks, to higher-order phenotypes, to populations.

After a plenary talk by the philosopher of science Francesca Merlin, we plan four sessions, each with an invited keynote talk, contributed talks, posters and discussion. There will be no concurrent events at this meeting.

1. Non-genetic inheritance of phenotypic noise (keynote: Maria Carmo-Fonseca)
2. The genetic basis of phenotypic noise (keynote: TBD)
3. The organismal implications of phenotypic noise (keynote: Patricia Wittkopp)
4. The population genetics of phenotypic noise (keynote: Daniel Weinreich)

Abstracts are due February 28, 2025, and acceptance decisions will be made March 15, 2025. Please note that the meeting is capped at 40, meaning that it may not be possible to accept all applications. Acceptance decisions will seek to maximize intellectual diversity as well as the diversity of participants. Special attention will be paid to individuals from historically underrepresented groups, as well as to early career investigators. Stipends may be available in cases of need.

Details can be found here: <https://pallareslab.github.io/bionoise2025/index.html> Please feel free to forward this message to interested individuals in your research group and wider community.

Ignacio Bravo (CNRS, Montpellier) Julien Dutheil (MPI, Pfü¹n) Luisa Pallares (MPI, Tübingen) Daniel Weinreich (Brown University)

google.com/view/weinreichlab/home < <https://sites.google.com/view/weinreichlab/home> >

daniel_weinreich@brown.edu

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UBordeaux EvolutionOfMulticellularity Dec16

Aurora Nedelcu (University of New Brunswick, Canada) **“Cancer and the Evolution of Multicellularity: Limitations of Current Views and Paradigms”**
 December 16th, 2024, 5pm (French time, UTC+1)
 PhilInBioMed Seminar Series, organized by the University of Bordeaux, France

Abstract The evolution of multicellularity requires the integration of single cells into new functionally, reproductively and evolutionary stable multicellular individuals. As part of this process, a change in levels of selection occurs, with selection at the multicellular level overriding selection at the cell level. The stability of multicellular individuals is dependent on a combination of mechanisms that control within-group evolution, by both reducing the occurrence of somatic mutations as well as suppressing somatic selection. Nevertheless, mutations that, in a particular microenvironment, confer mutant cell lineages a fitness advantage relative to normal somatic cells do occur, and can (but not always) result in cancer. This talk will highlight several views and paradigms that relate the evolution of multicellularity to cancer. Cancer is generally understood as a disease of multicellularity, and is interpreted in different frameworks: (i) a breakdown of cooperative behaviors (i.e., cheating) underlying the evolution of multicellularity, (ii) a disruption of molecular networks established during the emergence of multicellularity to impose constraints on single-celled units, or (iii) an atavistic state resulting from reactivating primitive programs that originated in the earliest unicellular species. Several assumptions are common in all the views relating cancer as a disease to the evolution of multicellularity. For instance, cancer is considered a reversal to selfish unicellularity, and cancer cells are thought to resemble unicellular organisms and benefit from ancestral-like traits. I will discuss potential limitations of current views and paradigms and show how different perspectives can provide novel insights with potential therapeutic implications.

Zoom link: please contact Thomas Pradeu <thomas.pradeu@u-bordeaux.fr>

Detailed information:

Aurora Nedelcu (Univ. New Brunswick, Canada) (virtual), Cancer and the evolution of multicellularity: limitations of current views and paradigms < <https://www.philinbiomed.org/event/aurora-nedelcu/> > philinbiomed.org < <https://www.philinbiomed.org/event/aurora-nedelcu/> > < <https://www.philinbiomed.org/event/aurora-nedelcu/> >

Sincerely,

Thomas Pradeu CNRS Research Director in Philosophy of Science Immunology Unit ImmunoConcept, UMR5164, CNRS & University of Bordeaux Presidential Fellow, Chapman University, CA, USA Team Leader Conceptual Biology and Medicine Team < <https://immunoconcept.cnrs.fr/conceptual-biology-medicine/> > Coordinator of the Philosophy in Biology and Medicine Network < <https://www.philinbiomed.org/> > (PhilInBioMed)

Thomas Pradeu <thomas.pradeu.list@gmail.com>

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UNeuchatel HolocentricChromosomes Apr25-26

Dear Colleagues,

I have the pleasure to announce the first conference dedicated to holocentric chromosomes held at the University of Neuchatel in Switzerland from the 25th to the 26th of April 2025.

You can find all details here: <https://holocentricity.ch>

Our aim is to bring together the holocentric community working on plants, arthropods and worms and to provide new perspectives, bridging between cell biology and macroevolution!

We will host the following keynote speakers:

Ines Drinnenberg, Institut Curie, France Marcial Escudero, University of Seville, Spain Joana Meier, Sanger Institute, UK Andrij $\frac{1}{2}$ Marques, Max Planck Institute, Germany

With kind regards

Kay

Prof. Dr. Kay Lucek Biodiversity Genomics Laboratory
University of Neuchatel rue Emile-Argand 11 2000
Neuchatel Switzerland

LUCEK Kay <kay.lucek@unine.ch>

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GradStudentPositions

AuburnU BehaviorEvolution 8	UBritishColumbia PopulationGenomics20
BangorU Salmonid eDNA 9	UCL London EvolutionaryEcolMemory20
BielefeldU AvianFitness10	UEdinburgh Two PlantEvolution21
Czechia BCCAS ProtistViruses11	UGlasgow EvoReproStrategies22
Edinburgh UK MegaPhaseGenomeData12	UGroningen PlantIslandBiogeography23
JamesMadisonU Virginia Two InsectPlantEvolEcol 12	ULeeds UK HippoPopGenomics23
MasseyU NewZealand FreezeTolerantInsects13	ULeeds UK PinnipedGenomics23
MasseyU NewZealand IceMicrobiomes14	ULEicester ComputationalPopulationGenomics24
NiabCambridge ExperimentalEvolutionFungi14	ULiverpool ClimateAdaptation25
NorthCarolinaStateU PlantEvolution15	ULiverpool ConservationGenomics26
NorthernMichiganU FishEvolution16	ULiverpool Two MarineAdaptation27
NorthernMichiganU SquirrelLifeHistory16	ULodz FishEcoEvo28
QMUL London Two BayesianPhylogenetics17	UMainz LifeHistoryEvolution28
QueenMaryLondon PopGen18	UYork UK Two ButterflyEvoDevo29
TexasStateU FishMacroevolution18	WashingtonStateU RapidAdaptation30
UBasel EvoDevoEmbryonicGeneRegulation19	
UBern PopGenDogsDisease19	

AuburnU BehaviorEvolution

The Mizumoto Lab is recruiting one graduate student (master's level). The student is expected to develop a research question on the diversity/evolution of *Reticulitermes* spp in Southeastern US region, compared with species in other regions. Research topics include e.g., tunneling behavior, tandem running behavior, and termitophile interactions. This research involves field-work, behavioral observations, video tracking, and computational data analysis. Graduate students are fully funded through research assistantships and will conduct research under the guidance of Dr. Nobuaki Mizumoto. Students are expected to present their research at national and international conferences, publish papers in international peer-reviewed journals, and actively participate in laboratory and departmental events.

For consideration, please send the following materials to nzm0095@auburn.edu

1. CV listing relevant coursework, skills, and research experience
2. Cover letter (1-2 page) addressing research interests and research experience, mentioning at least one paper from the lab website < <https://mizumoto-lab.com/publication/> >.
3. Transcript
4. Contact information of three references (letters will be required during the formal application process)

The position starts August of 2025. Review of materials will start at the end of December and continue until the position is filled. Selected applicants will be interviewed over Zoom.

Auburn University is an R1 research university located in a beautiful college town, offering many opportunities for nature-related activities. The Mizumoto Lab is part of the Department of Entomology & Plant Pathology, known for its friendly environment and rich tradition. Auburn hosts several labs studying social insects (ants, bees, termites), providing excellent opportunities to

develop future research networks.

Auburn University is committed to an inclusive and diverse campus environment. Traditionally underrepresented groups are encouraged to apply.

Contact Nobuaki Mizumoto, Assistant Professor Department of Entomology & Plant Pathology Auburn University, Auburn, AL, US E-mail: nzm0095@auburn.edu Website: mizumoto-lab.com/

Nobuaki Mizumoto Assistant Professor Dept. of Entomology & Plant Pathology Auburn University 376A Funchess Hall Auburn, AL 36849 334-844-5032 mizumoto-lab.com

Enjoy asynchronous communication. No need to immediately respond to my messages outside your regular work hours.

Nobuaki Mizumoto <nzm0095@auburn.edu>

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BangorU Salmonid eDNA

Dear All

We are currently recruiting for a student to undertake a competitive PhD application in the area of salmonid disease and environmental DNA analyses. The FindaPhD advert is here:

<https://www.findaphd.com/phds/project/nerc-red-alert-cdt-salmon-disease-omics-saldiomics-developing-a-novel-genomic-toolkit-to-understand-the-spatio-temporal-dynamics-of-freshwater-salmonid-disease/?p176410> And links available at the MEEB website, <https://www.bangor.ac.uk/meeb> The competition is available to international students and with international fees waived by the host institutions, in our case, Bangor University. As is often the case with Doctoral Training Programs, the projects will be awarded to the most competitive students and so please share with any relevant students or colleagues that you feel would be interested. Links also available for sharing on BlueSky and Twitter.

<https://bsky.app/profile/profsicreer.bsky.social> <https://x.com/SiCreerProf> Thanks and have a great Christmas!

Cheers and best wishes,

Si Creer

Mae croeso i chi gysylltu gyda'r Brifysgol yn Gymraeg neu Saesneg. Ni fydd gohebu yn Gymraeg yn arwain at oedi.

You are welcome to contact the University in Welsh or English. Corresponding in Welsh will not lead to delay.

Rhif Elusen Gofrestredig 1141565 - Registered Charity No. 1141565

Gall y neges e-bost hon, ac unrhyw atodiadau a anfonwyd gyda hi, gynnwys deunydd cyfrinachol ac wedi eu bwriadu i'w defnyddio'n unig gan y sawl y cawsant eu cyfeirio ato (atynt). Os ydych wedi derbyn y neges e-bost hon trwy gamgymeriad, rhowch wybod i'r anfonwr ar unwaith a dilewch y neges. Os na fwriadwyd anfon y neges atoch chi, rhaid i chi beidio a defnyddio, cadw neu ddatgelu unrhyw wybodaeth a gynhwysir ynddi. Mae unrhyw farn neu safbwynt yn eiddo i'r sawl a'i hanfodd yn unig ac nid yw o anghenraid yn cynrychioli barn Prifysgol Bangor. Nid yw Prifysgol Bangor yn gwarantu bod y neges e-bost hon neu unrhyw atodiadau yn rhydd rhag frysau neu 100% yn ddiogel. Oni bai fod hyn wedi ei ddatgan yn uniongyrchol yn nhestun yr e-bost, nid bwriad y neges e-bost hon yw ffurfio contract rhwymol - mae rhestr o lofnodwyr awdurdodedig ar gael o Swyddfa Cyllid Prifysgol Bangor.

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“Simon Creer (Staff)” <s.creer@bangor.ac.uk>

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BielefeldU AvianFitness

Subject: PhD position in Bielefeld University

We are looking for a PhD student to study the impact of anthropogenic noise on fitness-related behaviours, gene expression profiles, and gut microbiota in birds

Location: Department of Behavioural Ecology, Bielefeld University, Germany Start Date: 01.06.2024 Duration: 3 years Application Deadline: 03.01.2025

Background

Anthropogenic noise has become an ever-present pollutant across ecosystems, posing significant threats to wildlife. Birds are especially vulnerable due to their dependence on acoustic cues for communication, navigation, and mate selection. Despite the widespread impacts of noise pollution, our understanding of the exact physiological, behavioural, and molecular mechanisms through which it affects bird populations remains limited. This project aims to bridge this gap by examining how anthropogenic noise influences fitness-related behaviours, gene expression profiles, and gut microbiota in birds.

Job Description

We are seeking a highly motivated, passionate PhD candidate to investigate how anthropogenic noise affects avian species, employing a comprehensive approach, integrating physiological, behavioural, and molecular analyses. This highly collaborative project requires frequent, reciprocal interactions and exchanges among partner institutions, fostering a vibrant, stimulating environment that supports the growth and development of early-career researchers. PhD students will have the opportunity to work at the intersection of multiple disciplines, including molecular biology, ecophysiology and animal behaviour.

The successful candidate will work on:

Conducting behavioural and physiological experiments on captive zebra finches Employing multi-omic analyses, including transcriptomics and microbiome profiling

Qualifications

- A Master's degree (or equivalent) in Biology, Ecology, Animal Behavior, or a related field - Strong interest in behavioural ecology, molecular biology - Proficiency in data analysis and a strong command of R - Excel-

lent written and verbal communication skills in English - Strong organisational and communication skills and commitment to the research goals are essential,

Strong motivation, critical thinking, and an ability to work independently

Ability to work as a part of an international, multidisciplinary team

Preferable qualifications

Previous experience with molecular techniques, behavioural experiments

Papers in peer-reviewed international journals Previous experience in working with animals and/or attendance of animal experimentation course (Felasa or similar) is an advantage

What We Offer

- Access to state-of-the-art research facilities and resources for laboratory work - Training in cutting-edge multi-omic technologies and behavioral ecology techniques - Salary according to Remuneration level 13 TV-L (65%) - Fixed-term employment limited to three years - A stimulating, open and pleasant working atmosphere - The opportunity to contribute to cutting-edge research with implications for animal conservation - Funding for travel, conference attendance, and publication costs

The student will be supervised by Dr. Maraci and Prof. Barbara Caspers. The working language is English.

Application Procedure: We look forward to receiving your application via our application portal: https://jobs.uni-bielefeld.de/job/apply/3865/research-position-phd-candidate?page_lang=en For further information about our department, please see the webpage: https://www.uni-bielefeld.de/fakultaeten/biologie/-forschung/arbeitsgruppen/behav_eco/index.xml Do not hesitate to contact Maraci regarding your questions about the position, working group and Bielefeld via email: oncumaraci@uni-bielefeld.de

Bielefeld is an equal-opportunity employer. We particularly welcome applications from people from underrepresented groups, including but not limited to women and people with disabilities. Given equal suitability, qualifications and professional achievement, people from underrepresented groups will be given preference unless particular circumstances apply.

Oncu Maraci <oncumaraci@gmail.com>

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Czechia BCCAS ProtistViruses

Open PhD student position at the Department of Aquatic Microbial Ecology, Institute of Hydrobiology, Biology Centre CAS, ĀĀeskĀĀ BudĀĀ, Czech Republic

A PhD position is open to study viruses of protists, with an emphasis on Giant Viruses and Polinton-like viruses, using high-throughput isolation methods, genomics, transcriptomics, proteomics, and experimental approaches.

Protists are susceptible to infection by viruses just like all cellular life forms. However, little is known about their defense systems. Polinton-like viruses (PLVs) exist both as transposon-like elements in protist genomes and as bona fide DNA viruses that parasitize protist-infecting Giant Viruses (GVs), limiting their spread and safeguarding protist populations. Despite their remarkable abundance in some aquatic environments and expansions in certain protists, how PLVs infect cells, interact with the GV replication machinery, and the conditions under which they might reactivate from their host's genome remains obscure. To address these knowledge gaps, we propose to combine state-of-the-art genomics, transcriptomics, and proteomics to track individual infection stages in model protist-GV-PLVs systems. To achieve this, we will first isolate freshwater protists and subsequently their GV and PLVs. The anticipated outcomes will enhance our understanding of antiviral defense systems in microeukaryotes and microbial interactions at large.

About the employer: The Department of Aquatic Microbial Ecology (Institute of Hydrobiology, Biology Centre of the Czech Academy of Science) is an internationally recognized high-class institution for studying freshwater microbes. There are five well-equipped microbiological laboratories: a general wet-lab, two labs for bacterial and eukaryotic cultivation, and two for molecular biology. Instrumentation: A fully automated fluorescence microscope with image analysis for high-throughput evaluation of CARD-FISH stained samples, three fluorescence microscopes equipped with image analysis systems, inverted microscopes, a micromanipulator and microinjector, a spectrofluorometer, basic equipment for cultivation and molecular biology, ultra-low temperature freezers, a flow cytometer. Full equipment for lake sampling is available. Seven Linux servers and five Network-attached storage (NAS) units (total 1216

threads, 9 TB RAM, ca. 1000 TB of storage) are available with all relevant software installed for omics data analyses. One MinION (Oxford Nanopore) machine is available for performing long-read sequencing of DNA. Two Nvidia Tesla T4 graphics processing units (GPU) are integrated on servers for performing base calling of long reads, including calling of modified bases for epigenomics analyses.

Requirements: Min. education level: Master's degree

Field of education: Microbiology, Biotechnology, Molecular Biology, Bioinformatics

Applicants for the PhD position must have, or are expected to receive by July 2025, an M.Sc. degree in Biological Sciences (e.g. Microbiology, Biotechnology, Molecular Biology, Bioinformatics) and must show a strong interest in virus biology and eukaryotic genomics. Work is expected to be 60% computational and 40% laboratory based. Prior experience in Linux/Perl/R/Python programming might be favourably considered but is not a prerequisite for selection. Minimum practical experience with basic molecular biology methods is highly desirable. Candidates must be proficient in English.

How to apply: Please submit a detailed CV (including your grades), a brief statement of your research interests and work performed (max. 1 page), and the name and contact information for at least one referee via the REPLY button below. Preferably combine all this information into a single PDF file.

The position will remain open until a suitable candidate is found, applications will be evaluated monthly starting December 20, 2024. The target starting date is July 2025, with a later (1-2 months) date being negotiable.

For more information about this position, please contact Dr. Paul-Adrian Bulzu (bulzupaul@gmail.com) or follow the link: <https://jobs.bc.cas.cz/en/detail/233>

Paul-Adrian Bulzu, PhD

Laboratory of Microbial Ecology and Evolution Department of Aquatic Microbial Ecology Institute of Hydrobiology Biology Centre CAS Na Sadkach 7 370 05 Ceske Budejovice Czech Republic Tel: 00420 38777 5819 twitter: @SmallThingsLab

bulzupaul@gmail.com

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Edinburgh UK MegaPhaseGenomeData

Hi,

Exciting PhD opportunity to join us at Roslin/Edinburgh and work with the largest whole-genome sequencing dataset in selective breeding.

See details about the post and how to apply at: <
<https://t.co/6p0zwcwmC8> >

With regards!

University of Edinburgh Gregor Gorjanc, PhD The Roslin Institute Professor & Royal Society Industry Fellow Easter Bush @GregorGorjanc@twitter.com EH25 9RG @gregorgorjanc.bsky.social Scotland, UK www.ed.ac.uk/roslin/highlanderlab The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336. Is e buidheann carthannais a th' ann an Oilthigh Dh'èideann, cl'raichte an Alba, ?ireamh cl'raidh SC005336.

Gregor Gorjanc <Gregor.Gorjanc@roslin.ed.ac.uk>

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JamesMadisonU Virginia Two InsectPlantEvolEcol

The Hembry Lab in the Department of Biology at James Madison University (JMU) is recruiting two (2) master's students to fill paid research positions in the evolutionary ecology of insect-plant interactions, supported by an NSF BRC-BIO grant to Dr. David Hembry. I am expecting to fill 1-2 positions in Fall 2025 and the remaining position (if needed) in Spring 2026 and/or Fall 2026.

Research in the Hembry Lab (<https://hembrylab.com>) primarily focuses on the evolution and ecology of species interactions, with particular focus on brood pollination symbioses between leafflower plants (family Phyllanthaceae) and leafflower moths (genus Epicephala). This relationship is usually mutualistic, with the moths pollinating their host plants and the moths' caterpillars

eating a subset of the host's seeds. However, this mutualism has also repeatedly evolved to become parasitic, in which the moths cease to pollinate their host plants. Both open master's positions concern the biology of this mutualism-parasitism transition, and especially focus on the biology of parasitic leafflower moths found in the United States.

We are recruiting applicants to work on the following two projects: - One MS student will conduct research on the population genomics and phylogeography of leafflower moths and their host plants in the southern United States. This student will examine host-associated population divergence of an undescribed leafflower moth species on its three host plants (native leafflowers *Phyllanthus evanescens* and *Moeroris abnormis* and the recently introduced *Moeroris frater-nus*) in Texas, Louisiana, and Florida. This student will have a training visit to the laboratory of Dr. Katrina Dlugosch (University of Arizona). This project will involve a roughly equal mixture of fieldwork, labwork, and computer-based analyses. - One MS student will conduct research on the bacterial microbiomes of leafflower moths, examining variation in microbiomes among host plant genera and across the mutualism-parasitism transition. This student will be co-advised by Dr. David Hembry and Dr. Athenia Oldham (Department of Biology, University of Texas Permian Basin), and will have a training visit to the laboratory of Dr. Gordon Bennett (University of California, Merced). This project will primarily consist of labwork and computer-based analyses, with some fieldwork.

Each of the two master's projects is designed to result in a single first-authored peer-reviewed manuscript for the student.

These are paid positions for which recruited applicants will receive four semesters of stipend, two years of summer salary, and have four semesters of tuition and fees covered. Costs associated with fieldwork, labwork, and the training visits to larger institutions for each student are also covered by the grant. Each student will also have the opportunity to mentor a JMU undergraduate for at least one summer in research.

Desired qualifications: - Interest in evolution, ecology, species interactions, symbiosis, or coevolution - Undergraduate degree (received or expected) in biology or a related field - Prior research experience, especially in biology (fieldwork or labwork) or another natural science - Knowledge of statistics or programming (especially R or Python) is fantastic but neither expected nor required. - Prior field experience in the southeastern United States is beneficial for the population genomics project, but is neither expected nor required.

These are good positions for applicants interested in:
 - Evolutionary ecology, species interactions, coevolution, mutualism, parasitism, and evolution - Insects and/or native plants - Fieldwork in the southeastern United States - Pursuing a master's degree in evolution or ecology in advance of applying to a PhD program - Learning about bioinformatic methods and the use of next-generation sequence data in the lab and on the computer - Mentoring of undergraduate students in research

James Madison University is a public research university (R2 Carnegie classification) located in the city of Harrisonburg in the Shenandoah Valley of Virginia. Harrisonburg is a diverse college town that has been a beneficiary of the US State Department's Refugee Resettlement Program and is surrounded by public lands. JMU is 30 minutes from Shenandoah National Park and George Washington National Forest, two hours from Richmond, Virginia, and two and a half hours from the Washington, D.C. metropolitan area.

To apply, please send Dr. David Hembry (hembrydh@jmu.edu) the following via e-mail: (1) a short statement (1-2 paragraphs) explaining past research experiences and reasons for interest in the position; (2) an up-to-date academic CV or resume; and (3) names and e-mail addresses of two references who are prior mentors in biology or other natural sciences. For full consideration, please send these materials by January

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MasseyU NewZealand FreezeTolerantInsects

Fully-funded PhD scholarship on freeze-tolerance of endemic alpine insects in New Zealand.

Many different alpine insects in Aotearoa/New Zealand have converged on the same unusual evolutionary strategy for surviving the cold; they freeze solid and survive. Eating the right microbes can change how and when insects freeze, potentially providing benefits that are shared by unrelated host species. Alternatively this insects may have independently converged on similar species-specific solution for ice nucleation.

Read our review paper for more information: <https://www.mdpi.com/2075-4450/14/1/89> You should have a background in entomology and grounding in evolutionary biology. You will focus on New Zealand cockroaches to investigate the association between gut flora and temperature of crystallisation (T_c) by manipulating the microbiome. Antibiotic treatment and inoculation studies will be used to understand this association. You will also study ice nucleation activity of agents retrieved from the microbiome.

The scholarship: A tax-free living allowance stipend of NZ\$35,000 per annum for 3 years, plus tuition fees paid for 3 years. More information here: <https://www.massey.ac.nz/study/scholarships-and-awards/phd-scholarship-freeze-tolerant-insects-and-the-microbiome/> Start date: March 2025 or soon after.

Location: The successful applicant will be based on the Manawatu, $\frac{1}{2}$ campus of Massey University, Palmerston North, NEW ZEALAND. Massey University is a smoke-free work environment.

Lead researchers are Mary Morgan-Richards and Steve Trewick of the Te Taha Tawhiti research group: <https://evolves.massey.ac.nz> is within the Wildlife & Ecology Group.

Admission criteria & candidate requirements: You'll need a good first degree from an internationally recognised university; minimum upper second class Hons or a Master's degree in an appropriate subject. You should have a background in Ecology/Biology/Evolution/Entomology, good statistics skills (preferably experience with R) and an interest in evolution and microbiomes.

How to Apply In the first instance we encourage you to contact us by email to discuss your interest: m.morgan-richards@massey.ac.nz

M.Morgan-Richards@massey.ac.nz

Steve Trewick <S.Trewick@massey.ac.nz>

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MasseyU NewZealand IceMicrobiomes

MasseyU_NewZealand.IceMicrobiomics

Fully-funded PhD scholarship to study the extended genome of freeze-tolerant alpine insects in New Zealand

Many different alpine insects in Aotearoa/New Zealand have converged on the same unusual evolutionary strategy for surviving the cold; they freeze solid and survive. Eating the right microbes can change how and when insects freeze, potentially providing benefits that are shared by unrelated host species. Alternatively this insects may have independently converged on similar species-specific solution for ice nucleation.

Review paper here: <https://www.mdpi.com/2075-4450/14/1/89> You should have a background in molecular evolution and some programming experience would be an advantage. You will focus on bioinformatics to investigate the type and sources of ice nucleating agents that enable survival of freezing. You will generate DNA and RNA from sympatric insect taxa to compare ice+ activity of hosts and their microbiomes.

The scholarship: A tax-free living allowance stipend of NZ\$35,000 per annum for 3 years, plus tuition fees paid for 3 years. Advert here: <https://www.massey.ac.nz/-study/scholarships-and-awards/phd-scholarship-freeze-tolerant-insects-and-the-microbiome/> Start date: March 2025 or soon after.

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Lead researchers are Mary Morgan-Richards and Steve Trewick of the Te Taha Tawhiti research group: <https://evolves.massey.ac.nz> is within the Wildlife & Ecology Group.

Admission criteria & candidate requirements: You'll need a good first degree from an internationally recognised university; minimum upper second class Hons or a Master's degree in an appropriate subject. You should have a background in Ecology/Biology/Evolution/Entomology, good statistics skills (preferably experience with R) and an interest in evolution and microbiomes.

How to Apply: In the first instance we encourage you to

contact us by email to discuss your interest: m.morgan-richards@massey.ac.nz

M.Morgan-Richards@massey.ac.nz

Steve Trewick <S.Trewick@massey.ac.nz>

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NiabCambridge ExperimentalEvolutionFungi

Predicting fungicide resistance evolution: combining theoretical and experimental approaches

Closing date January 5, start date October 2025. Further details and link to application form at <https://www.ctp-sai.org/> We are recruiting a PhD student supervised by Dr Nichola Hawkins (Niab), Prof Nik Cunniffe (University of Cambridge), Dr Phil Madgwick and Dr Ariane Le Gros (Syngenta). The student will be based in Cambridge UK, as part of the Collaborative Training Programme in Sustainable Agricultural Innovation. Please note that the CTP funding covers tuition fees at the "home student" level only (in addition to stipend and research training funding), therefore applicants liable for the overseas student rate of tuition fees will need to be able to cover the difference by other means. This is a 4-year studentship including an industry placement.

The predictability of evolution by natural selection is one of the big questions in evolutionary biology. It also has enormous practical importance in crop protection. Plant pathogens have proved highly adaptable to crop protection methods, including fungicides, leading to the rapid evolution of fungicide resistance. If the evolution of resistance and the characteristics of resistant strains can be predicted in advance, more effective resistance management strategies can be developed to use fungicides more sustainably.

The fungal pathogen *Zymoseptoria tritici* causes Septoria leaf blotch, a major yield-limiting disease in wheat, and it has evolved resistance against multiple classes of fungicides. For some fungicides, a small number of major mutations have led to high levels of resistance, and resistance management is well understood. However, for the commonly- and currently-used azole and SDHI fungicides, the situation is more complex, with multiple different mutations leading to gradual shifts in sensitiv-

ity and affecting different fungicides within the affected class to different degrees. For the azole fungicide target site, CYP51, single isolates of *Z. tritici* can have up to ten mutations. Epistatic interactions between different mutations affect the overall phenotype of mutants, both in terms of resistance to different azole fungicides, and with fitness costs or compensatory effects on enzyme function. This can produce a rugged fitness landscape, making evolutionary outcomes more contingent upon selection history. *Z. tritici* can be readily cultured and fungicide resistant mutants can be generated under lab conditions, making it a useful model system for experimental studies of resistance evolution.

This project will combine theoretical and experimental approaches to investigate the evolution of fungicide resistance, working with the fungal pathogen *Zymoseptoria tritici*. Supported by a supervisory team comprising mathematical modellers and an experimental biologist, the student will develop mathematical models to generate theoretical predictions of resistance evolution, which they will test using experimental evolution and competition assays. The student will generate near-isogenic transformants with combinatorial sets of CYP51 mutations, to quantify the effects of mutations and their epistatic interactions on fungicide resistance and other fitness parameters. The student will then use these fitness parameters in population genetic and epidemiological models to discover viable evolutionary trajectories through the rugged fitness landscape as shaped by selection and stochasticity. Potential resistance management strategies can be compared in terms of how they manipulate the fitness landscape to delay resistance evolution. To test these predictions, competition assays will be run under the different selective conditions of alternative resistance management strategies, and DNA tests such as qPCR will be developed to quantify the mutations after selection.

The student will be able to address fundamental questions in evolutionary biology, while also contributing towards finding solutions to a practical problem in plant protection. In testing management strategies such as mixtures or alternations of fungicides or different dose rates, their findings will have direct impact on resistance management guidelines for *Z. tritici*, as well as having broader application to resistance evolution in other pathogens and pests.

The student will have the opportunity to develop skills in experimental biology and mathematical modelling. Lab skills will include microbiological culturing and phenotyping; cloning and transformation; mutagenesis and experimental evolution; and molecular diagnostics to detect and quantify resistant genotypes. Modelling skills will include mapping a complex biological system to a

parsimonious model; and methods for simulating and fitting stochastic population dynamic/genetics models. This project would suit a student with a background in molecular,

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North Carolina State U Plant Evolution

Candidate review will begin on December 20 and close on January 15 Starting Date Fall 2025

The VanLab at North Carolina State University (Raleigh, NC, USA) is aimed at understanding the genetics of rapid evolution in plants using field, greenhouse, lab, and bioinformatic approaches. We use weeds and invasive species as models with the twin goals of developing basic evolutionary understanding and improving weed management. More info about the lab: avanwal-lendael.github.io.

We aim to recruit a talented and curious graduate student (Master's or PhD level) with a background in plant biology, weed science, evolutionary biology, plant breeding, and/or genomics. Our lab is relatively new, but we are building a dynamic, diverse, and interactive team. The lab and the NCSU graduate community as a whole is dedicated to both personal support and scientific excellence.

Grant funding in support of this position is tied to the PopuWeed project, a multi-year effort started in 2024 to monitor genomic changes in agricultural weed populations. Inspired by long-term eco-evolutionary research projects such as the *E. coli* LTEE, Project Baseline, and the Park Grass experiment, PopuWeed will use pooled whole-genome sequencing to evaluate factors that determine the rate, direction, and parallelism of weed evolution over multiple species, sites, and years. The successful candidate for this position will be expected to work toward goals within the PopuWeed project, but will have the freedom to design and pursue additional projects of their interest. Examples may include questions focused on weed genetics such as: Do different species of weedy grasses exhibit similar resistance mechanisms to paraquat? Or evolution-focused questions

such as: ???Does dioecy confer an adaptive advantage in weedy amaranths???? Another major focus of the lab is on crop-related weeds, so a student may consider projects related to diverging adaptive pressures on weediness and domestication in systems such as millet, rice, sorghum, and sweet potato.

The lab is based primarily in the Horticulture Department, but students may apply to the Crop Science or Genetics Graduate programs. Students may also consider the Genetics and Genomics Scholars program, which provides project-based training in genomics in the first year of grad school. For any of these options, however, the first step will be to send your CV and a short letter of interest or cover letter to Acer VanWallendael at avanwal@ncsu.edu. Graduate students in NCSU???s College of Agriculture and Life Sciences typically complete a Master???s degree before proceeding to a 3-4 year PhD.

Graduate School Application Deadlines: Horticultural Sciences: January 15 Crop Science: March 1 (USA applicants up to June 25) Genetics: December 31 Genetics and Genomics Scholars: January 15 Acer VanWallendael

Assistant Professor Horticulture/Crop and Soil Sciences Departments

North Carolina State University [avanwallendael.github.io](https://github.com/avanwallendael)

Acer VanWallendael <avanwal@ncsu.edu>

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NorthernMichiganU FishEvolution

Graduate Position in Freshwater Fish Evolution

The Mandeville Lab at Northern Michigan University is recruiting a MS student to work on the evolutionary genomics of freshwater fish (start date fall 2025).

Research in our lab group focuses on how evolutionary processes shape freshwater fish biodiversity. Specific focus areas include hybridization, effects of anthropogenic disturbance, population connectivity, and the evolution of fish sex determination mechanisms. Specific project topic will depend on the interests of the successful candidate. Ongoing work in the lab includes evolution of hybrid unisexual dace lineages, leuciscid minnow hybridization or demography in response to anthropogenic change, and genetic diversity or population connectivity

of lake whitefish.

Candidates interested in evolution, fish biology, ecology, genetics, conservation, or related fields are encouraged to apply. Desired qualifications include the ability to balance working independently and collaboratively, excellent work habits, and strong writing skills. Projects will involve analysis of high resolution genomic data, requiring computational approaches and high performance computing. No prior computational experience is required, but applicants must be enthusiastic about building their computational skills. The Mandeville Lab aims to promote equity, diversity, and inclusion in the sciences, and encourages applications from students who are members of historically excluded or marginalized groups.

NMU is located in Marquette, Michigan, in the Upper Peninsula of Michigan. Marquette is a small but vibrant city on the southern shore of Lake Superior, located close to beautiful natural areas. It's a great place to live and work, and the proximity to many of our field sites enables us to do satisfying work integrating ecological and evolutionary questions.

To apply, please send a letter of interest, CV, transcript (unofficial is fine), and contact information for three references to Dr. Liz Mandeville, lmandevi@nmu.edu. Review of applications will begin immediately and continue until a suitable candidate is identified (official admissions procedures to follow). All applications received by December 20, 2024 will receive full consideration.

Liz Mandeville (she/her) Assistant Professor Biology Department Northern Michigan University 1401 Presque Isle Ave Marquette MI 49855 lmandevi@nmu.edu

Liz Mandeville <lmandevi@nmu.edu>

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NorthernMichiganU SquirrelLifeHistory

Dear everyone -

Interested in a Graduate Assistantship?

The Energetics Lab < <https://www.energetics-lab.com/> > (Giroud) is now accepting applications for a motivated individual interested in obtaining a Master in Biology at Northern Michigan University starting in the Fall of 2025. The project aims at studying the effects of

microclimates on hibernation and life-history traits in the Thirteen-Lined Ground Squirrel. More information about the Laboratory and about the position can be found at: <https://www.energetics-lab.com/in-the-news>

Applications received until January 13th, 2025 will receive full consideration!

Looking forward to your motivated applications!

Sylvain GIROUD, PhD Habil Assistant Professor of Animal Physiology

Northern Michigan University Department of Biology | Weston 2107

+1 (906) 227-2145 sgiroud@nmu.edu

<https://nmu.edu/biology/sylvain-giroud> <https://www.energetics-lab.com> International Hibernation Society Board Member <https://hibsoc.com> Sylvain Giroud <sgiroud@nmu.edu>

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QMUL London Two BayesianPhylogenetics

Two graduate position opportunities at the dos Reis lab at Queen Mary University of London to work on Bayesian phylogenetics.

Start: October 2025. Application deadlines for both projects: January 2025.

The first project is sponsored by NERC (UK) and is part of the new London Doctoral Landscape awards:

INTEGRATING MORPHOLOGY AND GENOMES TO INFER EVOLUTIONARY TIMESCALES

Large biological datasets are accumulating at a fast pace, such as genome sequences from the EarthBiogenome project or 3D scan data from museum specimens. These datasets can be integrated to resolve evolutionary timelines and relationships among species, in turn allowing the testing of precise hypothesis about patterns of species diversification through time and their relationship to the past climatic and geological history of the planet, including extinction events. In this project, the student will work in the development and application of Bayesian MCMC methodologies for analysis of genomic and morphological data to resolve evolutionary timescales. The new methodologies will be applied to case studies on the diversification of plant and animals,

allowing a deeper understanding of how biodiversity on Earth arose, and inform studies of the potential impacts of climate change on future biodiversity.

Deadline: 20th January 2025.

Further info and application procedure: <https://www.trees-dla.ac.uk/projects/integrating-morphology-and-genomes-infer-evolutionary-timescales> The second project is sponsored by the China Scholarship Council.

DEVELOPING EFFICIENT BAYESIAN SAMPLERS FOR EVOLUTIONARY ANALYSIS IN THE TREE OF LIFE

Application of high-throughput sequencing technologies is leading to the generation of vast genomic datasets, from to the collection of cells in a tumour to the millions of species in the Tree of Life. These large datasets can be analysed to understand patterns of molecular evolution, to work out the evolutionary relationship between species/cells, and to calibrate evolutionary trees to geological time. Bayesian statistical methods have become the state-of-the-art for such analyses but are computationally expensive. In this project, the student will develop new computational implementations of Bayesian MCMC samplers (such as Metropolis-Hasting and Hamiltonian Monte Carlo) for evolutionary studies, with emphasis on methods to determine diversification timings. The new methodologies can be applied to understand diversification patterns in case studies such as cancer cells, mammals, birds, and flowering plants, among others, helping to answer fundamental questions about evolutionary patterns. The project is suited for a student with background in any relevant areas such as computational biology, genomics, statistical modelling, Hamiltonian dynamics, and computer science.

Deadline: 25th January 2025 (this is the QMUL deadline, successful applicants can then apply to CSC around March).

Further info and application procedure: <https://www.findaphd.com/phds/project/developing-efficient-bayesian-samplers-for-evolutionary-analysis-in-the-tree-of-life/?p176899> Mario dos Reis

Reader in Statistical Phylogenetics Queen Mary University of London <https://dosreislabs.github.io> Mario Dos Reis Barros <m.dosreisbarros@qmul.ac.uk>

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QueenMaryLondon PopGen

The Queen Mary Faculty of Science and Engineering is inviting applications for Doctoral Research Studentships from UK candidates from underrepresented groups (e.g., Black, Asian, Minority Ethnic) in research in the UK with priority this round to Black, Black British, Caribbean, or African candidates.

Studentships will be awarded for a full-time or part-time PhD programme starting in autumn 2024. Awards are tenable for up to 3.5 years, and cover tuition fees and a maintenance stipend at the UKRI London rate (c.21,237 p.a. full-time, 10,619 part-time; 2025/26 rates tbc).

In order to be considered for an award, applicants should have (or expect to have by the end of the 2024/25 academic year) a master's degree or equivalent in an appropriate field. You must be a UK permanent resident from an underrepresented group in research, e.g., Black, Asian and other Minority Ethnic, with the priority for this round given to those from Black origin, and eligible to pay home student fees.

Further information are available at <https://www.qmul.ac.uk/sbbs/postgraduate/phd-programmes/studentships/s-e-underrepresented-group-doctoral-research-studentships/> If interested in pursuing a project on population genetics and machine learning, please contact me m.fumagalli@qmul.ac.uk with a CV and a couple of paragraphs of personal statements before January 9th 2025.

Matteo Fumagalli (he/him) Senior Lecturer in Genetics School of Biological and Behavioural Sciences Queen Mary University of London <https://mfumagalli.github.io/> Matteo Fumagalli <m.fumagalli@qmul.ac.uk>

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TexasStateU FishMacroevolution

The Borstein Lab at Texas State University is recruiting MSc and PhD students for Fall 2025 (August). Research

in the lab focuses on determining the patterns and processes that underlie adaptive diversification in the most diverse group of vertebrates fishes. Current lab research projects include understanding the process of adaptive radiation, investigating the ecological and evolutionary consequences of key innovations, and exploring the relationship between trophic ecology and ecomorphology. The lab takes an integrative approach to research that includes genomics, phylogenetic comparative methods, micro-computed tomography, fieldwork, kinematics, and the construction of large ecological databases.

Contact: Contact Sam Borstein with questions or to discuss potential research projects in the lab at borstein@txstate.edu

About the Lab & Texas State University: The Borstein lab (<https://www.bio.txst.edu/faculty-staff/sam-borstein.html>) is housed in the Department of Biology at Texas State University. The lab is equipped with a wet lab for molecular studies as well as a high-performance computer for bioinformatics. Located in San Marcos, Texas, Texas State University is in the heart of Texas Hill Country and only a short 30-45 minutes away from both Austin, Texas and San Antonio, Texas. Texas State University is an R2 University with the goal of reaching R1 status in the next five years.

HOW TO APPLY: A BS or BA in a relevant scientific field is required. Students are supported by the department via teaching assistantships and potentially research assistantships. If interested, please email an informal inquiry and CV to borstein@txstate.edu prior to applying. The deadline to apply for admission to the Fall 2025 PhD program is January 15th, 2025. The application deadlines for the Master's programs in the Department of Biology are rolling for U.S. citizens, while for international students the deadlines are February 1, 2025, for priority consideration and June 1, 2025, if positions remain available. The steps for formally applying to our graduate program can be found here for the PhD in Aquatic Resources and Integrative Biology program (<https://www.gradcollege.txst.edu/-programs/aquatic-resources-phd.html>), M.S. in Aquatic Resources (<https://www.gradcollege.txst.edu/-programs/aquatic-resources.html>), M.S. in Biology (<https://www.gradcollege.txst.edu/programs/-biology.html>), Population and Conservation Biology (<https://www.gradcollege.txst.edu/programs/-population-conservation-bio.html>), and Wildlife Ecology (<https://www.gradcollege.txst.edu/programs/wildlife-ecology.html>).

Sam Borstein Department of Biology Texas State University borstein@txstate.edu 601 University Drive San Marcos, TX 78666

“Borstein, Sam” <borstein@txstate.edu>

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ing@mcmaster.ca)

UBasel EvoDevoEmbryonicGeneRegulation

Graduate position: UBasel.EcoEvoDevoEmbryonicGeneRegulation

A fully funded 4-year PhD position is available in the lab of Patrick Tschopp at the University of Basel, Switzerland, to study the molecular and tissue-scale dynamics during the embryonic formation of the vertebrate skeleton and compare it across different vertebrate species with distinct habitats.

We are looking for a highly motivated candidate with strong interests in developmental biology, single-cell functional genomics and bioinformatic analyses, as well as experimental embryology work with birds and fish. We offer a highly interactive, stimulating and interdisciplinary research environment, state-of-the-art research infrastructure, and a competitive salary.

The Tschopp lab (www.evolution.unibas.ch/tschopp/research/) studies the gene regulatory mechanisms of cell type specification and evolution in vertebrates. See also our preprints at <https://doi.org/10.1101/2024.03.26.586769> and <https://doi.org/10.1101/2024.11.28.625862> Applications should include a motivation letter, a CV, a list of publications, a statement about research interests, as well as the names and contact details of at least two referees. Applications (in the form of a single .pdf file) should be sent to Patrick Tschopp (patrick.tschopp@unibas.ch); review of applications will begin on January 1st 2025, and will continue until the position is filled.

Patrick Tschopp <patrick.tschopp@unibas.ch>

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UBern PopGenDogsDisease

PhD position: Population genetics of free-roaming dogs and disease

A funded PhD position is available in the group of Gerald Heckel for genomic research on the population structure and connectivity of free-roaming dogs and their viruses. This position is part of a large interdisciplinary project funded by the Swiss National Science Foundation (SNSF) aiming to determine the role of free-roaming dogs in the spread and persistence of infectious disease. The project will combine experts from veterinary and social sciences, epidemiology, mathematical modelling and population genetics to test which influence the landscape, infrastructure and human-dog relationships have on disease transmission in Africa and Asia. A postdoctoral position will open soon to work closely with the PhD candidate on the population genetics aspects, and several PhD and postdoctoral researchers from the other disciplines will collaborate. The overarching goal of the project is to formulate effective and socially accepted control strategies to reduce infection and disease burden in dogs and humans.

I am looking for a skilled, reliable and highly-motivated PhD candidate who is able to work independently and in a diverse team of different origins and educational backgrounds. The project includes periods of data collection on free-roaming dogs in Uganda, Chad, Indonesia, and India together with local and international collaborators. Experience with fieldwork in potentially physically challenging conditions is a plus. You must have a solid background in evolutionary biology, and some practical experience with bioinformatics, population genetics or evolutionary genomics. Experience with molecular laboratory work or fieldwork is advantageous but not essential. Most of your time will be devoted to the processing and analysis of genomic data sets, and the preparation of presentations and manuscripts. A Master degree in a relevant field is required. Obtaining a PhD from the University of Bern will require the writing of several manuscripts for leading scientific journals.

The position is fully funded for up to four years with an anticipated starting date of June 2025. My group is part of the Institute of Ecology and Evolution with a stimulating, multi-national research community and excellent infrastructure. English is the working language. Some knowledge of German or French is beneficial for living in Switzerland but it is not essential for the PhD project. The city of Bern and the region is a fabulous place to live.

Please send your application as a single (!!!) pdf file to Prof. Dr. Gerald Heckel gerald.heckel@unibe.ch.

To be considered, the pdf must include a letter describing your particular skills and motivation for the project and which past research experience makes you a suitable candidate (max. 2 pages), the abstract of your Master

thesis, a CV, and contact details of 2-3 referees. Review of applications will begin February 32025.

Prof. Dr. Gerald Heckel

Institute of Ecology and Evolution

University of Bern

Baltzerstrasse 6

CH-3012 Bern, Switzerland

Email: gerald.heckel@unibe.ch

“gerald.heckel@unibe.ch” <gerald.heckel@unibe.ch>

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UBritishColumbia PopulationGenomics

I am looking for multiple PhD and MSc students to join my research team at The University of British Columbia (Okanagan Campus) to take part in studies of the genomic basis of adaptation to environmental change in multiple species-at-risk. The project offers opportunities for both laboratory and field-based research, and direct collaboration with Provincial, Federal and Indigenous management agencies. Individuals with a population genetics background, bioinformatics experience and strong analytical skills are especially encouraged to apply.

Visit the Ecological and Conservation Genomics Laboratory website (<https://blogs.ubc.ca/russellolab/>) for more information on our current research directions. Additional information about our Biology graduate program at UBC can be found at the following website: <http://biol.ok.ubc.ca/graduate/biology.html> To apply, send me via e-mail (michael.russello@ubc.ca) a CV, unofficial transcripts, writing sample, and contact information for at least two references.

Dr. Michael Russello Professor, Population and Conservation Genomics The University of British Columbia, Okanagan Campus Irving K Barber Faculty of Science Department of Biology 3247 University Way, FIP346 Kelowna, BC Canada V1V 1V7 michael.russello@ubc.ca

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UCL London EvolutionaryEcolMemory

PhD position available in the research group of Prof Elli Leadbeater (<https://profiles.ucl.ac.uk/99422-elli-leadbeater>), co-supervisor Dr Flo Camus (<https://www.ucl.ac.uk/biosciences/people/flo-camus>), at University College London.

This project seeks to explore how memory evolves in response to the ecological tasks that animals face in their natural environment, using experimental evolution approaches in fruit fly models. Associative memory exists in some form in almost all animal species that have been tested, and is one of the fundamental building blocks of the animal mind. However, it is far from a singular, uniform entity that fades gradually over time. Instead, memories are stored through a complex interplay of multiple, semi-independent phases that operate in parallel, each with its own triggers, storing memories in various forms with differing levels of stability. These processes- particularly short-term memory (STM) and long-term memory (LTM)- have been hypothesized to play different roles in the ecological world, but in reality we do not understand whether selection can act on them independently. In this project, we will establish how selection on associative LTM affects STM, and more widely, performance in other tasks, using experimental evolution approaches in *Drosophila melanogaster*. Working closely within a team of researchers all of whom will be exploring different aspects of the evolution of memory, you will create *Drosophila* lines that have undergone selection for STM or LTM, and explore impacts on (a) performance in assays of the selected and non-selected trait (b) performance in different real-world tasks (c) evolutionary changes in cognitive genes and gene expression.

The project is advertised as part of the TREES Doctoral Landscape Award, and applications should be submitted via the TREES website. Details of the project can be found here: <https://www.trees-dla.ac.uk/-projects/evolutionary-ecology-animal-memory>. Information about TREES, including eligibility rules and application procedures, can be found here: <https://www.trees-dla.ac.uk>. Please direct any questions about the project itself to Ellouise.Leadbeater@ucl.ac.uk.

Elli Leadbeater Professor of Ecosystems and Biodiversity Research People and Nature Lab, UCL East Uni-

University College London

“Leadbeater, Ellouise” <ellouise.leadbeater@ucl.ac.uk>

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U**Edinburgh** Two Plant**Evolution**

Surviving extremes: genomics of plant adaptations to diverse environments

PhD offered at the University of Edinburgh

Summary Investigating the ecological genetics of adaptation to contrasting environments, focusing on sea thrift (*Armeria maritima*), a species adapted to coastal and inland montane areas.

Project background How plant species expand their ecological niche and colonise novel environments remains poorly known. While many species have limited ecological tolerances and distribution ranges, others have expanded their ranges and now thrive under novel conditions. This project investigates the ecological genetics of species that have colonised contrasting environments. The initial focus is on studying dispersal and migration of sea thrift, *Armeria maritima*, which possesses notable adaptations to coastal habitats, and is prevalent on sea-cliffs and saltmarshes, but also occurs at high elevations inland, and has spread along roads treated with salt. This work may also be expanded to genomic comparisons of other species such as the sea plantain (*Plantago maritima*) and roseroot (*Rhodiola rosea*), or to growth experiments assessing population performance under different environmental stressors. Overall, this work will lead to new knowledge that may inform predicted responses to changing climates and habitats.

The project will involve a placement with CASE partners the Botanical Society of Britain and Ireland (BSBI). This placement at the Scottish office of the BSBI will provide key training in botanical skills such as the use of species distribution databases and the opportunity to engage with plant conservation work.

Research questions 1. What is the extent of gene flow between coastal and inland populations of sea thrift?

2. Do coastal and inland populations show contrasting genomic signatures of adaptation?

Requirements An enthusiasm and interest in evolutionary biology and a working knowledge (or interest in

building skills) in bioinformatics. A driving license would be useful for fieldwork.

CASE partner: Botanical Society of Scotland

For more details please see the advert here: <https://e4-dtp.ed.ac.uk/e5-dtp/supervisor-led-projects/-project?item=1707> The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336. Is e buidheann carthannais a th' ann an Oilthigh Dh'n ?ideann, cl?raichte an Alba, ?ireamh cl?raidh SC005336.

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Whole genome duplication and the polyploidy continuum

PhD offered at the University of Edinburgh

Polyploidy-whole genome duplication-is a major mutation that leads to a doubling of the chromosome number. This process has attracted the interest of biologists for over a century because of its critical role in generating diversity, influencing genes, species, and communities. Most commonly, polyploids are separate into two categories, autopolyploidy where whole genome duplication occurs within species, and allopolyploidy where whole genome duplication occurs following cross-species hybridisation. However, polyploid diversity may be better described as a continuum, with a wide range of variation not least due to the varying effects of hybridisation in allopolyploids.

This project aims to investigate the diversity of plant genomes across the polyploidy continuum. Comparative genomics will be performed on reference genomes for plants from the Darwin Tree of Life project, which is generating high quality chromosome level genome assemblies for all British and Irish eukaryotic species. This large-scale analysis will identify the degree of divergence between polyploid subgenomes, and provide a first descriptor of polyploid genomic diversity across taxa. Further work within the project will be tailored to the interests of the applicant. This may include either: (1) bioinformatics tool development to characterise polyploid genome diversity, (2) fieldwork to sample wild populations of polyploid species for genomic characterisation.

Overall, this project will lead to important new insights into the evolutionary outcomes of polyploidy.

For more details please see the advert here: <https://www.findaphd.com/phds/project/eastbio-whole-genome-duplication-and-the-polyploidy-continuum/-?p179539> The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336. Is e buidheann carthannais a th' ann an

Oilthigh Dh?n ?ideann, cl?raichte an Alba, ?ireamh cl?raidh SC005336.

Alex Twyford <Alex.Twyford@ed.ac.uk>

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UGlasgow EvoReproStrategies

We have a fully funded PhD position available to join our team at the University of Glasgow Scotland through the competitively awarded, NERC-funded IAPETUS2 Doctoral Training Programme. IAPETUS2 DTP is a partnership between Universities in the Northeast UK, giving the student an opportunity to network with fellow PhD students and future leaders in the science of the natural environment. [Deadline is very soon, see below!]

This project will use the common lizard, *Zootoca vivipara*, to study how female oviparous (egg-laying) and viviparous (live-bearing) lizards differ in their reproductive strategies. We will be investigating how they trade-off costs and benefits across age classes, and the interaction of these individual-level decisions with evolution and demography. To do so we will leverage this powerful comparison of lizards of two different parity modes that are living in the same environment and even hybridise (see Recknagel et al. 2021 Nature Ecol Evol for background).

The research involves long-term fieldwork in the Alps, where the student will have the opportunity to join with an experienced and international team at a long-term research site. In the lab, the research involves advanced molecular biology for epigenomic and genomic approaches, which is conducted in a vibrant, well supported, and well-equipped lab environment. The project benefits from a large existing bank of samples and data, which the student will build upon.

Details of the project motivation, aims, and methodologies can be found at the IAPETUS2 website under project IAP-24-102. <https://iapetus2.ac.uk/-studentships/female-mate-choice-genetic-effects-and-the-diverse-reproductive-strategies-of-live-bearing-and-egg-laying-lizards/> Funding: The project is fully funded for 3.5 years including stipend (tax-free salary) at standard RCUK rate (i.e. $\frac{1}{2}$ 19,237 in 2024/25 with annual increases), university fees, and research contribution. You will also receive professional and transferrable skills training through the doctoral programme.

The studentship will start Oct 2025.

Eligibility: This studentship is open to UK and international students - we welcome a diversity of applicants! See details of eligibility at the IAPETUS2 website.

The successful candidate for this project is likely to be someone with a strong background in evolution and/or population ecology/genetics, who can show evidence of practical and analytical experience in an appropriate field, and demonstrates enthusiasm and aptitude for research.

You will join a collegial and motivated research team with graduate students, postdocs and technicians studying evolution and adaptation in natural environments. The studentship is based with Prof. Elmer (U Glasgow). Co-supervisor Prof. Ritchie (U St Andrews) studies evolutionary biology and evolutionary genetics with a focus on sexual selection and behavioural strategies. Co-supervisor Dr. Boonekamp (U Glasgow) is interested in life history trade-offs and reproductive decisions.

You can find more about our activities and interests here: <http://elmerlab.blogspot.com> Deadline: International applicants must contact Prof Elmer directly with a CV and statement of interest by ****Dec 11 2024****. There is a specific application route and earlier deadline for international students. UK-resident applicants are encouraged to contact Prof Elmer by Dec 16 2024 with a CV and statement of interest and/or draft of the IAPETUS2 studentship competition application form template. Informal inquiries are welcome. Final applications are through the IAPETUS2 website using their form by 3 Jan 2025.

EDI: In order to address historical imbalances in the higher education sector, Iapetus is committed to recruiting a diverse, representative community of researchers in Environmental Science. The DTP has developed an Equality, Diversity and Inclusion policy to further this. This includes the Widening Participation Scheme, which identifies Home applicants from underrepresented groups. Also, we are pleased to introduce the IAPETUS2 Diversifying Talent Scholarship Scheme, a separate competition designed for those from underrepresented groups. For more, please see the Iapetus website.

Kathryn.Elmer@glasgow.ac.uk

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UGroningen PlantIslandBiogeography

The University of Groningen, The Netherlands and Macquarie University, Sydney, Australia, invite applications for a joint PhD position exploring fundamental questions in island biogeography and evolution. See for more information: <https://www.mq.edu.au/-research/phd-and-research-degrees/how-to-apply/-scholarship-opportunities/scholarship-search/global-phd-in-island-biogeography-for-plants> . Rampal Etienne

“Rampal S. Etienne” <r.s.etienne@rug.nl>

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ULeeds UK HippoPopGenomics

Funded PhD Opportunity, University of Leeds, UK: Deadline 8th January 2025

Modelling the metapopulation of the southern African common hippopotamus

The common hippopotamus (*Hippopotamus amphibius*) is one of a handful of extant African megaherbivore species. Unlike other megafauna, hippo are relatively understudied. For example the distribution of hippo subpopulations across southern Africa is not well known, and neither is the genetic relatedness between these subpopulations or the extent of isolation. The capacity for hippo dispersal across subpopulations has not been quantified, and the genetic and demographic outcomes of subpopulation connectivity/isolation has not been modelled.

The student will use low-coverage whole genome sequencing to estimate hippo subpopulation structure, reconstruct past population demographic history and employ population models to simulate the population genetic and demographic outcomes of different conservation strategies. Together this will allow us to understand how the current genetic composition of hippo populations has been shaped by environmental processes and

anthropogenic factors, and the implications of future hippo conservation actions.

The student will preferably have a background in genetics, genomics and/or bioinformatics. The student will work closely with both Dr Traill (expertise in large mammal ecology and conservation) and Dr Goodman (expertise in population genetics and conservation), and with southern African collaborators. There may be opportunity for field work. The student will have access to skills development through the YES-DTN, and will be part of two research groups in the School of Biology at Leeds. Academic skills gained will include GIS-based spatial analysis, modeling in R and population genomics.

More info: <https://yes-dtn.ac.uk/research/modelling-the-metapopulation-of-the-southern-african-common-hippopotamus/> How to apply: <https://yes-dtn.ac.uk/-application-information/> Supervisors: Dr Lochran Traill, Dr Simon Goodman Informal inquiries: Dr Lochran Traill - l.traill@leeds.ac.uk, Dr Simon Goodman - s.j.goodman@leeds.ac.uk

Eligibility and Funding Information: Competition-funded via NERC YES-DTN starting from October 2025. UK or International students eligible to apply.

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

Tel: +44-(0)113-3432561 Email: s.j.goodman@leeds.ac.uk Web: <http://www.goodmanlab.org/> Twitter: @DrSimon_Goodman BlueSky: @phoca-sapiens.bsky.social

Sustainable Ecosystems and Adaptation Research Pillar Lead, Ecology & Evolution Research Group Lead, School of Biology Director of PGR Studies, School of Biology

Simon Goodman <S.J.Goodman@leeds.ac.uk>

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ULeeds UK PinnipedGenomics

Funded PhD Opportunity, University of Leeds, UK: Deadline 8th January 2025

The evolutionary genomics of life-history adaptations in pinnipeds

Pinnipeds (seals, sea lions, fur seals and walrus) are keystone marine predators, and sentinels for marine

ecosystem health. Advances in genomics technologies are opening up the possibility to identify and dissect the genetics and molecular evolution underlying the adaptations of pinnipeds to the marine environment and the startling variation in ecology and life history present within the family. Understanding these mechanisms not only provides fundamental insights into the process of evolution, but is also important for assessing species vulnerability and responses to potential future environmental change. Some of the unique adaptations of pinnipeds may also be of relevance to human health and therapeutics.

This project will build on rapidly growing genomic resources for pinnipeds, including de novo seal genome assemblies generated by the Goodman/O'Connell labs and other colleagues in the Pinniped Genome Consortium. These provide an opportunity to use comparative genomics to examine key aspects of pinniped ecology and evolution including physiological adaptations underpinning different life-history strategies.

For example, adult body size can range from less than 100kg in Caspian seals to more than 2000kg for male elephant seals, while weaning times vary from 4-12 days in hooded and harp seals up to 18 months in some sea lions, and 2 years in the walrus. Pinnipeds have also evolved lipid rich milk, with fat content for some species exceeding 60%. The ecological drivers of these differences appear to be related to breeding substrates and ecological feeding niche exploited by species. In previous work we have identified 100s of genes that show signatures of adaptive evolution unique to different pinniped lineages and species which may underpin these adaptations. Many of these genes are associated with key elements of lipid metabolism and milk properties.

Our next aim is to understand how these genes have evolved across the pinniped lineage, and how past environmental changes created selection pressures shaping their evolution, and the evolution of pinnipeds overall. To do this we will use a variety of genomic approaches including de novo sequencing of seal genomes, molecular evolution and phylogenomic analyses, and population genetic studies at the genomic level.

Secondly, we will also use multiomic approaches to understand the functional significance of amino acid substitutions between species in subsets of genes strongly associated with our traits of interest, and will evaluate how changes in gene expression might also contribute to evolution of traits such high fat content in pinniped milk, and tolerance of rapid fluxes of lipid in and out of blubber.

Resolving the genomic basis of such adaptations is important for understanding many aspects of pinniped

biology, but may also contribute to predicting adaptive responses of pinniped species to future climate change and loss of sea ice.

Extended project description: <https://yes-dtn.ac.uk/-research/the-evolutionary-genomics-of-life-history-adaptations-in-pinnipeds/> How to apply: <https://yes-dtn.ac.uk/application-information/> Supervisors Dr Simon Goodman, Dr Ian Carr (University of Leeds) Dr Kimberley Bennett (Abertay University) Prof Mary O'Connell (University of Nottingham)

Informal inquiries: Dr Simon Goodman - s.j.goodman@leeds.ac.uk, <https://goodmanlab.org/> Eligibility and Funding Information: Competition-funded via NERC YES-DTN starting from October 2025. UK or International students eligible to apply.

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

Tel: +44-(0)113-3432561 Email: s.j.goodman@leeds.ac.uk Web: <http://www.goodmanlab.org/> Twitter: @DrSimon_Goodman BlueSky: @phoca-sapiens.bsky.social

Sustainable Ecosystems and Adaptation Research Pillar Lead,

Ecology & Evolution Research Group Lead, School of Biology

Director of PGR Studies, School of Biology

Simon Goodman <S.J.Goodman@leeds.ac.uk>

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ULeicester ComputationalPopulationGenomics

How can we understand how bacterial pathogens evolve? Current sequencing techniques allow us to receive high-quality genomes from samples within and between hosts. Typically, the pathogens will amass their genomic changes within the host. Thus, to understand pathogen evolution, we need to understand within-host evolution.

However, present-day inference tools for evolutionary parameters (selection, demography) are often designed for other species (for instance humans) and work on large evolutionary timescales (many generations) and thus are not automatically suited for analysing within-host

samples, as these are operating on relatively short(er) timescales.

Your task will be to simulate various evolutionary scenarios of within-host evolution of bacterial pathogens, understand what drives changes in genetic diversity of within-host populations, assess whether current methods allow to infer population genetic parameters and, if not, design your own inference methods using a machine-learning approach - as well as observing the limits what we can infer from a sample of a given size.

Now equipped with a suitable approach to inference, you will assess the within-host evolution of several (previously sequenced and available) within-host data sets from *Helicobacter pylori* and *Streptococcus pneumoniae*.

Sounds interesting as your PhD thesis? Want to come to Leicester (UK) for this? Then, have a look at the full description here: <https://le.ac.uk/study/research-degrees/funded-opportunities/bbsrc-mibtp>, which also shows other very interesting projects of my colleagues in Leicester you can apply for.

The studentship is part of the BBSRC Midlands Integrative Biosciences Training Partnership, whose 4-year studentships are open to UK and international applicants and come with tuition and a project budget. Please see https://warwick.ac.uk/fac/cross_fac/mibtp/phd/ for more information (and even more interesting projects at other Midlands universities).

Deadline for application is January 16th 2025.

Any more questions? Feel free to send me an email: ff95@leicester.ac.uk.

Fabian Freund, Lecturer for Population Genomics Department of Genetics and Genome Biology, University of Leicester, UK

ff95@leicester.ac.uk

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ULiverpool ClimateAdaptation

PhD position available to candidates worldwide at the University of Liverpool, UK:

Assessing the Effects of Heatwaves on Specialised Ecological Interactions.

Zoom information session on December 11th 2024 15:00-

GMT register https://docs.google.com/forms/d/e/1FAIpQLScIagzsj7ga_1HBjJaJmytEg9yJT176dxdpHolzbbM-JVb-kiA/viewform?usp=send_form here to attend.

About the Project

Background: Climate change is amplifying the frequency and intensity of extreme weather events, with heatwaves (HWs) being a significant stressor for ecological systems. Specialised plant-herbivore-predator interactions, shaped by the dynamics of chemical defences of plants and the physiological traits of herbivores and predators, are particularly vulnerable. Heatwaves may increase the production of plant defence compounds, potentially altering herbivore development, toxicity, and predator-prey dynamics through temperature-dependent toxicity. Understanding these interactions under HW conditions is critical for predicting and mitigating climate change impacts on ecosystems.

Research Focus: The PhD candidate working on this project will investigate how heatwaves affect ecological interactions between plants, herbivores, and predators. The focus will be on the chemical defences of plants, the physiological responses of specialised herbivores, and predator behaviour. The goal is to determine the mechanisms of organismal responses to heatwaves and how those responses drive ecological interactions.

Objectives: Examine the effects of heatwaves on herbivore performance by measuring herbivore growth, colouration, toxicity, and physiological responses in relation to plant chemical defences. Investigate physiological mechanisms driving heatwave effects on herbivores and predator through measuring or manipulating biomarkers of stress. Quantify predator-prey outcomes by assessing insect survival under variable HW conditions with different predator guilds. Evaluate the broader ecological implications of heatwaves for plant-insect interactions and ecosystem functionality, providing insights into the effects of extreme climatic events.

Interdisciplinary Training and Techniques You will work within a cross-disciplinary team with expertise spanning plant and insect chemical and evolutionary ecology, with skills in molecular evolution, biochemical physiology, and animal behaviour.

Training opportunities include: Experimental Design: Conducting controlled temperature experiments on ecological interactions and insect performance to simulate HW conditions. Multispectral imaging and computational psychophysics: objectively measuring colouration and modelling colour perception in different guilds of visual predators. Physiological and Biochemical Assays: Assessing insect and plant biomarkers of stress and cellular health; colourimetric toxicity assays. Quantitative

Analysis: Applying ecological data analysis and visualisation tools with an emphasis on reproducible research practices. **Scientific Communication:** Preparing manuscripts for peer-reviewed journals and delivering presentations at conferences and public forums.

Research Environment: You will join Dr. Hannah Rowland's team [www.hannahrowland.co.uk], which focuses on toxin-mediated biotic interactions in insects and vertebrates. We have characterised toxins produced by hostplants [1], the toxins sequestered by specialised herbivores [2], the effects of sequestration on antipredator colour development [3], and the effect of toxins on predators [4]. You will be part of a dynamic research environment within the Department of Evolution, Ecology, and Behaviour, with access to international collaborations, excellent research facilities and training, and opportunities to present your findings at international conferences. More broadly, the university offers several essential facilities for this research programme including the avian Egg Facility, the Centre for Metabolomics Research together with the Analytical Services in the Department of Chemistry.

Why Apply? This project offers a unique opportunity to contribute to research on climate-induced stress in ecological systems. Ideal candidates will have a background in chemical or behavioural ecology, biochemistry, or a related discipline, with interests in plant-insect, predator-prey, or other ecological interactions. The training provided will equip the candidate for diverse career paths in research, ecological consulting, and science communication/education, amongst others. The findings will inform efforts to predict and mitigate the impacts of extreme weather events on biodiversity.

How to Apply Please see the ACCE website for all details of how to apply to the

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ULiverpool Conservation Genomics

Exciting PhD Opportunity in Conservation Genomics! Join our innovative team at the University of Liverpool and CEFAS for a fully funded CASE partnership PhD project, supported by NERC. We're seeking passionate

individuals ready to tackle climate change challenges through genomics, bioinformatics, and climate projections.

“Adapting to Change: Integrating Climate Projections and Genomic Tools to Future-Proof Fisheries Management”

What You'll Do: - Develop cutting-edge genomic tools to predict fish population responses to climate change. - Collaborate with leading experts in genomics, evolutionary biology, and climate science. - Create real-world applications for marine conservation and fisheries management.

Why Apply? - Work with a dynamic and supportive team, including Tarang Mehta and Stewart Plaistow (University of Liverpool), David Murray, Louise Rutherford, and Adam Ciezarek (CEFAS). - Gain access to advanced sequencing data and computing resources. - Train in advanced bioinformatics, data science, climate projection, and transferable skills. - Present your research at international conferences and contribute to high-impact publications.

Who Should Apply? Enthusiastic candidates with a background in biology, genetics, bioinformatics, or related fields.

Don't miss this chance to make a significant impact on fisheries management and marine conservation. You can find more information on the project here:

<https://www.findaphd.com/phds/project/accedla-programme-adapting-to-change-integrating-climate-projections-and-genomic-tools-to-future-proof-fisheries-management/?p178435> Check out the webinar: https://drive.google.com/file/d/1owIpckWt-rBLkzwoPqjOuUVVuM62qwnQ/view?usp=drive_link Project FAQ here: https://docs.google.com/document/d/1rTwW7NnU08XqNxG5crxsdZFvVmSnuc.g/-edit?usp=drive_link&ouid=-101074401770750557026&rtopof=true&sd=true

Please contact Tarang Mehta (Tarang.Mehta@liverpool.ac.uk) if you have any direct queries but otherwise, apply now and help shape the future of sustainable marine resources: <https://accedtp.ac.uk/how-to-apply/> Best wishes, Dr Tarang K. Mehta (He/Him) Lecturer in Bioinformatics Institute of Systems, Molecular and Integrative Biology Dept. of Biochemistry, Cell and Systems Biology Room B350, Biosciences Building Crown Street Liverpool L69 7BE Office Phone: 0151 795 4566

Web profile: <https://www.liverpool.ac.uk/-systems-molecular-and-integrative-biology/staff/-tarang-mehta/> Study for an MSc Bioinformatics with us: <https://www.liverpool.ac.uk/->

courses/2024/bioinformatics-msc “Mehta, Tarang”
<Tarang.Mehta@liverpool.ac.uk>

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ULiverpool Two MarineAdaptation

ACCE+ DLA programme: Ecological and evolutionary consequences of nanoplastic pollution in the water flea, *Daphnia magna*

Wednesday, January 08, 2025 Competition Funded PhD Project (Students Worldwide)

About the Project Background Plastic pollution is one of the most urgent global environmental challenges, with 60% of all plastic ever produced ending up in the environment. Over time, this waste breaks down into microplastics (particles smaller than 5mm) and nanoplastics (1-1000nm), which pose significant risks to both ecosystems and human health when ingested. Nanoplastics are particularly concerning because their size enables them to penetrate tissues that microplastics cannot, even crossing cell membranes. While advances in nanomedicine have revealed that nanoparticle properties (size, shape, charge, and polymer type) significantly impact their biological effects, the specific dangers posed by nanoplastics remain unclear. To date, most studies have used laboratory-based 'model' polystyrene nanoparticles, which may not accurately reflect real-world nanoplastic pollution.

Objectives This exciting PhD project invites you to explore the cutting-edge field of nanoplastic pollution. Your key aim will be to synthesize and characterize nanoplastic particles derived from common everyday plastics. These particles will then be used to test how their properties influence toxicity, bioaccumulation, and transmission across generations in living organisms. Using *Daphnia magna* a model aquatic species you will investigate how various biological and environmental factors modify nanoplastic behaviour and toxicity. In the final phase, you will take your research from the lab to the field, utilizing our state-of-the-art mesocosm facility to study the long-term ecological and evolutionary effects of nanoplastic exposure in whole, replicated ecosystems.

Throughout the project, you'll receive support from our CASE partner, Steve Morris from Defra's Water Quality Evidence & Policy team, and Dr Tom McDon-

ald from the Henry Royce institute ensuring that your research stays aligned with policy needs and industry applications.

Research Environment, Skills, and Training You will join a vibrant, interdisciplinary research environment that promotes collaboration between environmental science, ecotoxicology, evolutionary biology, analytical chemistry and nanotechnology. You'll develop a range of sought-after skills, including nanoparticle synthesis and characterization, toxicological assays, experimental design, statistics, microscopy, image analysis and fieldwork. Moreover, you'll gain hands-on experience with state-of-the-art equipment, such as our mesocosms, providing invaluable insight into ecosystem-level research. There will be opportunities to work with industry and policy experts, enhancing your understanding of the real-world implications of your research.

Regular team meetings, seminars, and collaborative partnerships will enhance your professional development. You will also present your work at international conferences and contribute to high-impact publications.

Novelty and Timeliness With nanoplastic pollution emerging as a critical threat to biodiversity and human health, this project offers a unique opportunity to address knowledge gaps in the field. By synthesizing realistic nanoplastic particles and studying their effects in ecologically relevant species, your work will generate novel data with significant implications for water quality management, conservation strategies, and industrial policies. This research is not only timely but critical in shaping future environmental policies and safeguarding ecosystem health.

Applicant suitability We are committed to fostering an inclusive research environment that values diversity and promotes equity. We therefore encourage applications from all backgrounds. We are looking for enthusiastic individuals with a strong background in biology, environmental science or a related field. Experience in working with micro/nanoplastics and *Daphnia* is desirable, but not essential as full training will be provided. Most importantly, we seek candidates who are curious, creative, and passionate about the plastic pollution problem.

How to Apply Please see the ACCE website for all details of how to apply to the programme at each ACCE+ institution: <https://accedtp.ac.uk/how-to-apply/>. All applicants to ACCE+ must complete the ACCE+ personal statement proforma. This is instead of a personal/supporting statement or cover letter. The proforma is designed to standardise this part of the application to minimise the difference between those who are given support and those who are not. Candidates should also submit a CV and the contact details of two

referees.

Part-Time Study Options All ACCE+ PhDs are available as part time or full time, with part time being a minimum of 50% of full time. Please discuss potential part time

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ULodz FishEcoEvo

PhD Position available in the Department of Ecology & Vertebrate Zoology, University of Lodz, Poland

We are recruiting a PhD student to research the eco-evolutionary dynamics of three-spined stickleback populations on the island of North Uist in Scotland. The project is based in Lodz, Poland, but will involve regular fieldwork in North Uist. The candidate will receive training in field sampling and data collection, laboratory experimental work, diet analysis, and data analysis. The position is available immediately and is supported with a stipend and research funding.

If interested, email Carl Smith (carl.smith@biol.uni.lodz.pl) with a 2-page CV.

Carl Smith <carl.smith@biol.uni.lodz.pl>

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UMainz LifeHistoryEvolution

University Professor of Life History Evolution beginning at the earliest date possible.

Salary grade W 3 LBesG | Civil servant (tenured)

We are seeking an internationally renowned scientist in the field of life history evolution. The successful candidate's research shall bridge empirical and theoretical approaches and may focus on the evolution of reproductive strategies, life span or aging. Our new

colleague should work with our recently established international community of evolutionary biologists at the iomE and play a major role in a planned collaborative research initiative on the genetic basis and evolution of life histories.

The successful candidate will receive departmental positions and start-up funds and will be expected to establish an independent and internationally visible research program sustained by third party funding. Examples of further cooperation opportunities include: Institute of the Institute of Quantitative and Computational Biosciences iqcb.uni-mainz.de, the Institute of Molecular Biology (IMB) as well as collaborative research centres (e.g. CRC 1361 DNA Repair & Genome Stability; CRC 1551 Polymer Concepts in Cellular Function), the Research Training Group GenEvo (Gene regulation in Evolution), and profile areas such as ReALity (Resilience - Adaptation - Longevity) or the Centre of Healthy Aging (further details here). The Senckenberg Biodiversity and Climate Research Centre and the LOEWE Centre for Translational Biodiversity Genomics offer further collaboration opportunities within the Rhine Main region.

Finally, the successful candidate will teach courses in evolutionary and quantitative biology at JGU, including in the newly established master's program in Evolutionary Biology. We seek to increase the number of courses taught in English. Participation in academic service is expected.

In addition to the general requirements according to public services law, applicants must meet the recruitment requirements stipulated in Section 49 of the Hochschulgesetz of Rhineland-Palatinate. In addition to the doctorate, a demonstration of excellent academic achievements is required.

Please upload your complete application information and documents (CV, references, diplomas and certificates, as well as lists of publications and teaching activities, funding record, current research and future research plans, teaching concept) no later than January 10 2025 via our portal with the following link:

<https://berufungsportal.uni-mainz.de/datenabfrage/-LifeHistoryEvolution> The interview symposium is tentatively planned for March/April 2025. For questions and further information, please contact the chairperson of the search committee Prof. Hanna Kokko (hkokko@uni-mainz.de).

Prof. Meret Huber Plant Evolutionary Ecology Institute of Organismic and Molecular Evolution University of Mainz Johann-Joachim-Becher-Weg 7 55128 Mainz Germany

Phone: 0049 (0)6131 39 302 60 meret.huber@uni-mainz.de <https://plant-evolutionary-ecology.uni-mainz.de/> Meret Huber <meret.huber@uni-mainz.de>

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UYork UK Two ButterflyEvoDevo

Genetic and developmental basis of transparency in butterflies

Exciting EvoDevo PhD Opportunity!

We are looking for someone with a background in evolutionary biology and/or developmental biology to join our team at the University of York for a fully funded PhD project.

This is an exciting multidisciplinary project that has a high training value as you will use a range of techniques to understand the genetic underpinning of transparency in glasswing butterflies. The project will involve fieldwork at IKIAM in Ecuador, microscopy to characterise scale morphology, genome sequencing and genome-wide association to discover candidate genes, RNAseq analysis to characterise differential gene expression and create gene regulatory networks, and CRISPR to validate candidate genes.

About the Project The wings of most butterflies and moths are covered in tile-like scales which make them opaque, with scale pigmentation responsible for their intricate colourful patterns. Many species of Lepidoptera have evolved transparent wings, and this is common in some groups like the glasswing butterflies that are found in South and Central America. Wing transparency in Lepidoptera can be achieved in different ways, such as by changing the scale morphology, size, opacity and density. While we now have some understanding of the optical properties causing transparency, the genetic and developmental basis of this trait has to date not been established.

Our data show that in glasswing butterflies, wing transparency is achieved by converting the scales from tile-like to hair-like structures. The aims of this project are to i) identify the genes and developmental pathways controlling transparency in glasswing butterflies, and ii) establish if the same genes and networks are conserved across other close and distantly related butterfly species.

For informal enquiries about the project, please

contact Prof Kanchon Dasmahapatra kanchon.dasmahapatra@york.ac.uk.

Lead supervisor: Prof Kanchon Dasmahapatra (<https://www.york.ac.uk/res/dasmahapatra/>) Co-supervisors: Dr Daphne Ezer (York), Dr Nicola Nadeau (Sheffield), Dr Caroline Bacquet (Universidad Regional Amazonica IKIAM, Ecuador)

The application deadline is 6th January 2025.

For further details about the project, how to apply, and link to a webinar, please visit: <https://www.findaphd.com/phds/project/york-ybdtproject-genetic-and-developmental-basis-of-transparency-in-butterflies/?p178668> New publications : Hoffman JI, Vendrami DLJ, Hench K, Chen RS, Stoffel MA *Dasmahapatra KK* (2024) Genomic and fitness consequences of a near-extinction event in the northern elephant seal. *Nature Ecology & Evolution*, 2024; DOI: <https://doi.org/10.1038/s41559-024-02533-2> Rosser N, Seixas F, Queste LM, Cama B *Dasmahapatra KK* (2024) Hybrid speciation driven by multilocus introgression of ecological traits. *Nature* <https://doi.org/10.1038/s41586-024-07263-w> —

Genetic consequences of climate change-induced range shifts in *Aricia* butterflies

Exciting PhD Opportunity in Conservation Genomics!

Join our team at the University of York for a fully funded PhD project.

We are looking for someone with a background in evolutionary biology and/or conservation to explore the poorly understood evolutionary consequences of global change. A particular area that needs further investigation is what happens when historically geographically separated but related species come into contact due to climate-driven shifts in their distributions.

The project will involve fieldwork in Britain, lab work, and the bioinformatic analysis of genome sequences and has high training potential for the applicant. You will benefit from using high quality genome assemblies from the Darwin Tree of Life Project and ecological data from the UK Biological Records Centre. You will be situated at two of York's $\frac{1}{2}$ euro s dynamic research centres, the Leverhulme Centre for Anthropocene Biodiversity and the Stockholm Environment Institute.

CASE Partners and placement opportunities: The project involves two non-academic partner organisations, Natural England and Butterfly Conservation, who offer additional funding and resources to support the project. Natural England also provides the opportunity of a research placement allowing a direct link between the research and policy makers. The project therefore

suit someone looking for opportunities to engage with conservation NGOs and policy makers.

Lead supervisor: Prof Kanchon Dasmahapatra (<https://www.york.ac.uk/res/dasmahapatra/>)

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WashingtonStateU RapidAdaptation

PhD and MS positions: Genomics and ecological impacts of rapid adaptation

Description The Rudman Lab (<https://sites.google.com/view/rudmanlab/home>) seeks applicants interested in conducting thesis research on the genomics and ecological impacts of rapid adaptation.

Research Topics Current work in the lab is investigating

Whether and how rapid adaptation allows populations to persist in rapidly changing environments ('evolutionary rescue') How to slow the evolution of insecticide resistance in crop pests Determining the predictability of the genomic basis of rapid evolutionary change Measuring the contribution of the microbiome to rapid host adaptation Understanding the genetic factors that promote and constrain rapid adaptation

Details The lab is part of the School of Biological Sciences at Washington State University and is located in Vancouver, Washington (Portland, OR metro area).

Starting annual salary is \$34,000 for MS students and \$36,000 for PhD students with schedule raises.

Application deadline: January 15th, 2025

Position start date: Summer or Fall 2025

To Apply Interested applicants should complete this form: https://docs.google.com/forms/d/e/1FAIpQLSf0cG_KnheLewsGZBAqLxPXpvh-EfoKk7jluVGuS9dgug60g/viewform?usp=sharing

Seth (seth.rudman@wsu.edu) will then contact applicants to arrange a time to discuss motivations and mutual research interests.

"Rudman, Seth" <seth.rudman@wsu.edu>

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ArizonaStateU DirectorOfBiocollections

Arizona State University is seeking a Director for the Biocollections, which comprise ASU Natural History Collections and the ASU NEON Biorepository. The first paragraph of the job description is below, and here's the link to the application page: <https://apply.interfolio.com/159166> The School of Life Sciences (SOLS) at Arizona State University (ASU) invites applications for the Director of the ASU Biocollections with a concurrent appointment as a tenured associate or full professor. The anticipated start date for this position is July 1, 2025. The successful candidate will provide inspirational vision, quality leadership, and sound management for one of the fastest-growing biological collections in the US. The unique partnership between ASU's Natural History Collections and the NSF-funded National Ecological Observatory Network (NEON) Biorepository offers unprecedented opportunities for innovative research, education, and outreach.

For questions about the position please reach out to chair of the hiring committee, Dr. James Collins, at jcollins@asu.edu.

Sincerely, Dakota Rowsey

Dakota M. Rowsey, Ph.D. (he/his) Vertebrate Collections Manager Portal Manager, Consortium of Small Vertebrate Collections Arizona State University Natural History Collections 734 W Alameda Dr. Tempe, AZ 85282 (480)727-5870

I acknowledge that I reside and work on the ancestral territories of the Akimel O'odham (Pima) and Piipaash (Maricopa) Indian Communities and am grateful for their care of the Salt River Valley that enables me to live and work here.

Dakota Rowsey <drowsey@asu.edu>

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BowdoinC Maine 1yr PopulationGenomics

The Biology Department at Bowdoin College is looking for a one-year visiting professor to teach a core undergraduate course in population genomics, and two other courses related to the Ecology, Evolution, and Marine Biology concentration in Biology. See details below. While we are interested in folks with experience in marine systems, terrestrial or freshwater research programs will also be considered. This person will cover my sabbatical leave during 2025/2026.

If you have additional questions about this position, feel free to contact me.

Dave Carlon, PhD. Professor of Biology Bowdoin College 2 Polar Loop Brunswick, ME 04011 Phone: (207) 798-4364 <https://research.bowdoin.edu/carlon-lab/> Title Visiting Assistant Professor of Biology

Posting Number F00259JP

Department Biology

Position Summary

The Biology Department at Bowdoin College invites applications for a full-time, benefits-eligible visiting assistant professor position for the 2025-2026 academic year. The appointment is for one year and begins July 1, 2025. The teaching load is two courses per semester. In the fall semester, the visiting professor will teach a lab course on Population Genomics, with the assistance of a lab instructor, alongside a non-majors biology course of their choosing. In the spring semester the professor will offer a 3000-level seminar that contributes to the Ecology, Evolution, and Marine Biology concentration, and a non-majors course. The subfield is open; we are especially interested in candidates specializing in using population genetics data, marine sciences, or bioinformatics. A PhD in Biology or a related field is expected by the date of appointment.

Bowdoin College offers opportunities for professional development including robust programming and resources for establishing and enhancing mentoring networks. The College also offers support for teaching, scholarship, publication, digital initiatives, computing software, conference travel, and community partnerships in courses.

Bowdoin embraces diversity in all forms, and the College is home to talented students, faculty and staff with a

variety of racial, ethnic, cultural, and socioeconomic backgrounds; religious beliefs; and gender identities, among other factors. We encourage applications from candidates committed to the inclusive instruction and support of a diverse student population and those who will enrich and contribute to the College's multifaceted diversity. Accessibility during the application and interview stages, as well as once employed, is a priority of the College: <https://www.bowdoin.edu/accessibility/index.html>. In addition, visa sponsorships for faculty hires are available.

At Bowdoin, we also embrace inclusive excellence, an ongoing collective practice that honors our institutional commitment to provide an outstanding liberal arts education and serve the common good. We practice inclusive excellence when we build capacity to engage with and learn from differences, leverage resources to disrupt inequities, and foster belonging so that all members of our community can thrive.

Bowdoin College accepts only electronic submissions. Please visit <https://careers.bowdoin.edu> to submit: 1) a cover letter that includes a summary of your scholarly focus; 2) a curriculum vitae; 3) a teaching statement that includes a description of your teaching philosophy and experience, and a description of how your approach demonstrates a commitment to inclusive excellence in teaching; and, 4) the names and contact information for three references who have agreed to provide letters of recommendation. Letters will be automatically requested from the references of candidates invited for interviews.

Review of applications will begin on January 15, 2025, and continue until the position is filled. The targeted hiring salary range for this appointment based on the position requirements is \$71,000 - \$75,000.

Founded in 1794, Bowdoin has maintained its commitment to the liberal arts for well over 200 years. Bowdoin's reputation as a preeminent liberal arts college rests on the excellence of its faculty, students, and staff; intimate size; strong sense of community; and connections to the people, history, and natural beauty of Maine. Bowdoin's campus is situated in a beautiful natural setting. Located in Brunswick, Maine, a town of approximately 20,000, the College is a short drive from the Maine coast, twenty-five miles from Portland and 120 miles from Boston. Bowdoin College complies with applicable provisions of federal and state laws that prohibit unlawful discrimination in employment, admission, or access to its educational or extracurricular programs, activities, or facilities based on race, color, ethnicity, ancestry and national origin, religion, sex, sexual orientation, gender identity and/or

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City College New York QuantitativeEvol

Assistant or Associate Professor - Quantitative Ecologist
(Tenure Track) - Biology

FACULTY VACANCY ANNOUNCEMENT

The Department of Biology at The City College of New York (CCNY) seeks a Quantitative Ecologist (full-time tenure-track Assistant or Associate Professor) with a research program at the population and/or community levels and the potential for field-based studies in eastern North America. CCNY is the flagship campus of the City University of New York (CUNY), a public university system in New York City. CCNY offers BS and MS degrees in Biology and co-grants PhDs in collaboration with the CUNY Graduate Center. CCNY serves a broad range of students and has an exemplary record as an engine of social and economic mobility.

The candidate's research should be conducive to interactions with the Department's highly collaborative biodiversity researchers, including existing strengths in biogeography, population genetics, and species interactions. Opportunities for collaboration exist with colleagues throughout CUNY, the American Museum of Natural History, and the New York Botanical Garden. The candidate's research program at CCNY will include advising undergraduate and graduate students. They will also contribute to the Department via service and teaching (for example, in different semesters rotating through a course in the undergraduate core Biology curriculum, teaching a local field-based course, and offering a graduate class in their specialty).

QUALIFICATIONS

Minimum Qualifications:

The successful candidate will hold a Ph.D. (or foreign equivalent) and have conducted postdoctoral research in a relevant field.

Preferred Qualifications:

Demonstrate the potential to maintain an extramurally funded research program in the stated area

Prior experience mentoring student researchers is highly desirable

Able to contribute to service and teaching

COMPENSATION

Salary Range:

Assistant Professor: \$90,375 - \$99,532

Associate Professor: \$90,375 - \$117,805

CUNY offers faculty a competitive compensation and benefits package covering health insurance, pension and retirement benefits, paid parental leave, and savings programs. We also provide mentoring and support for research, scholarship, and publication as part of our commitment to ongoing faculty professional development.

HOW TO APPLY

Only applications submitted through CUNY first will be considered

If you are viewing this job posting externally, please apply as follows:

Go to <https://cuny.jobs/> Search for Job Opening ID number: 29319

Click on the "Apply Now" button and follow the instructions.

Applications, including the following items must be uploaded to the CUNYfirst job application website as a single PDF document:

- (1) Cover Letter
- (2) Curriculum Vitae including Publication List
- (3) Research Statement (maximum 2 pages)
- (4) Teaching Statement (maximum 2 pages)
- (5) Statement of commitment to diversity and Inclusion (maximum 2 pages)
- (6) Names and contact information of three references

Should you encounter any issues submitting your application or uploading the required materials, for troubleshooting tips, please visit the CUNY-first Job System Instructions page at <https://www.cuny.edu/employment/search-jobs/cunyfirst-job-system-instructions/#1686680422706-afe867ce-9e11>

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CLOSING DATE

January 25, 2025

JOB SEARCH CATEGORY

CUNY Job Posting: Faculty

EQUAL EMPLOYMENT OPPORTUNITY

CUNY encourages people with disabilities, minorities, veterans and women to apply. At CUNY, Italian Americans are also included among our protected groups. Applicants and employees will not be discriminated against on the basis of any legally protected category, including sexual orientation or gender identity. EEO/AA/Vet/Disability Employer.

Job ID

29319

Location

City College of New York

On behalf of the search committee

Mike Hickerson

Michael J Hickerson

Professor, City College of New York - Biology Department;

Chair, Ecology, Evolution, and Behavior PhD sub-program; City University of New York and the Graduate Center

New York, NY

Research Associate - Division of Invertebrate Zoology

American Museum of Natural History

mhickerson@ccny.cuny.edu

Michael Hickerson <mhickerson@ccny.cuny.edu>

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Frankfurt LabManager Environmental Genomics

The Senckenberg Biodiversity and Climate Research Centre in Frankfurt am Main invites applications for a Laboratory manager (m/f/d) in Functional Environmental Genomics

(reference #11-24010)

(full time / part time options available)

The B??lnt Group at the Senckenberg Biodiversity and Climate Research Centre is seeking a highly motivated laboratory manager to support our work in molecular biodiversity research.

Our group investigates the structural and functional patterns of biodiversity change across space and time, and the impacts of human activities on these patterns. We are particularly interested in time series of biodiversity derived from sedimentary ancient DNA and spatial patterns described with environmental DNA. We use molecular data to infer traits and functions in ecological communities. We are currently extending research activities to the tropics, especially to sub-Saharan Africa. Work in the group includes community ecology, whole genome sequencing, DNA- and RNA-based community analyses, and application of statistical tools to link changes in biodiversity to the environment [1].

The group is part of the Senckenberg Biodiversity and Climate Research Centre (SBIK-F) within the Senckenberg Leibniz Institution for Biodiversity and Earth System Research, located close to the city center of Frankfurt am Main. In addition to our dedicated laboratories, we have access to cutting-edge facilities, including robotics, ancient DNA, and computational infrastructure. SBIK-F is an internationally renowned research hub covering interactions among biodiversity and the climate system. The group is interacting with a diverse network of researchers including geologists, bioinformaticians, ecologists, paleo ecologists, paleoanthropologists, etc. from Germany and beyond. The primary working language of the group is English.

Your tasks

Management of the laboratories of the Biont Lab, including the acquisition of tools and consumables Implementation of molecular biology protocols in the laboratory or in the field (including tropical field sites), adaptation of protocols, development of new protocols Management of the laboratory and sample database Instruction of employees / students (f/m/d) in the use of laboratories / laboratory methods, and performance of organisational tasks, including the booking of laboratory facilities Instruction, training and control of safety measures in the Biont Laboratory (initial safety training will be provided) Management of the Frankfurt aDNA laboratory

Your profile

We encourage you to apply if you meet all obligatory, and at least two of the optional criteria.

Obligatory

Degree in biological sciences or a related discipline Experience with DNA extractions Experience with optimizing PCR reactions Excellent written and spoken English Experience with working as part of research teams Experience supporting scientists and students in the laboratory Optional

Good written and spoken German Experience with environmental DNA Experience with ancient DNA or forensic DNA Experience with library preparations Experience with qPCR Experience with RNA extractions or RT-PCR Experience with molecular laboratory procedures under field conditions Managing sample and supply databases Experience with instructing students What is awaiting you?

Flexible working hours ??? leave of absence due to family reasons (audit berufundfamilie) ??? parent-child-office ??? annual special payment ??? company pension scheme ??? Senckenberg badge for free entry in museums in Frankfurt ??? leave of 30 days/year Frankfurt is a vibrant and highly international city at the heart of Europe that combines a skyscraper skyline with ample park and green areas

Place of employment: Frankfurt (Main)

Working hours: full time / part time options are available

Type of contract: the contract shall start in early 2025 and is (initially) limited for 2 years

Salary: according to the collective agreement of the State of Hesse (pay grade E 11, TV-H)

Senckenberg is committed to diversity. We benefit from the different expertise, perspectives and personalities of our staff and welcome every application from qualified candidates, irrespective of age, gender, ethnic or cultural origin, religion and ideology, sexual orientation and identity or disability. Women are particularly encouraged to apply, as they are underrepresented in the field of this position; in the case of equal qualifications and suitability they will be given preference. Applicants with a severe disability will be given special consideration in case of equal suitability. Senckenberg actively supports the compatibility of work and family and places great emphasis on an equal and inclusive work culture.

You would like to apply?

We kindly request that you send us your complete and informative application documents, which should contain

Your CV, Contact information for at least two references, A summary of your

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IndianaU LabManager AvianMolecularEcol

Job: IndianaU.LabManager.AvianMolecularEcologyEvolutionBehavior

The Rosvall Lab in the Department of Biology at Indiana University, Bloomington is seeking a Research Associate/Lab manager. Our department is a large, unified department with world-class research spanning all levels of biological organization and diverse experimental systems. Our lab in Evolution, Ecology, and Behavior investigates the genomic and physiological bases of behavior. Our research uses conceptual and analytical tools from animal behavior, neuroendocrinology, evolutionary ecology, physiology, and genomics. We spend up to four months of the year doing fieldwork with wild birds, and the rest of the year we process samples and data in the lab. The overarching goal for this position is to make timely progress on our NSF grant (https://www.nsf.gov/awardsearch/showAward?AWD_ID=2411741), which explores how cavity-nestling birds use behavior to mitigate negative effects of heat. We are excited about science and looking for another positive, curious person to join our team. All members of our team contribute to the projects of other team members - this may include assistance with a research protocol, feedback on seminars, edits on manuscripts, and so on. My philosophy is that a collaborative and supportive research environment benefits everyone involved. You play a key supporting role in achieving these goals.

Core job duties include: (1) Supervising undergrads as the leader of the field research team (March to July). Field work is generally local (southern Indiana), though there are also occasional domestic field trips too. (2) Leading our research compliance, IACUC, lab safety, permits, and associated documentation. (3) Management and analysis of longitudinal data. (4) Learning, conducting and teaching other lab members our key research protocols. In the lab, this may include: EIA, RNA extraction, cDNA synthesis, qPCR, and various statistical analyses in R. In the field, this will include both observational and hand-on skills with birds. (5) Writing up research (e.g. for our annual reports or for manuscripts) or presenting findings (e.g. at lab meeting).

Other general responsibilities include: testing lab or field equipment, collecting data using established proto-

cols, managing general lab operations, troubleshooting problems in the field and lab, and participating in lab meetings.

Education and Experience Required: Bachelor's degree and 2 years of experience in a research setting OR Master's degree that includes research experience.

Required skills:

* Demonstrates mastery of time management * Main-
tains high degree of professionalism * Ability to work effectively as a team * Ability to be organized and detail-oriented * Proficient communication skills, written and oral * Anticipates and solves problems * Highly dependable * High degree of initiative * Flexibility for research tasks that vary seasonally and include bouts of intense work

Preferred skills

* Hands on research experience with birds * Experience with field research * Proficiency in working with large datasets * Proficiency in one or more molecular or endocrine lab skills

Working conditions/demands: The role frequently requires the ability to move about the work environment, in the lab and in remote, rural areas. Access to research sites will require an active driver's license and seasonal use of a personal vehicle, with gas mileage to be reimbursed. The role requires the ability to move objects weighing up to 20 pounds

To apply, please submit (1) a cover letter describing your research and educational background, your career goals, why you are interested in this position, and the date you are available to start, (2) a CV or resume, and (3) the names and contact info of two references. This can be submitted at the following link: <https://indiana.peopleadmin.com/postings/27167>. For questions about the position, contact Kim (krosvall@iu.edu).

Timing and Compensation: Review of applicants will begin December 31 and continue until the position is filled. Ideal start date is Jan 15, 2024. The initial appointment is for 1 year, and reappointment for up to 4 years is contingent upon satisfactory performance. Salary is commensurate with experience and starting at \$43,888. Full benefits are included.

More about the department, campus, and town: The department of Biology is a large, unified department with strong undergraduate degrees, nationally-ranked graduate programs, and world-class research spanning the breadth of biological questions and experimental systems - from ecosystems to microbiology and developmental biology, from evolution to cell biology, from molecular biology to systems biology, bioinformatics,

and genomics. It is always an exciting

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

North Carolina State University Plant Evolutionary Biology

NC State University

College of Agriculture and Life Sciences

Department of Plant and Microbial Biology

PLANT EVOLUTIONARY BIOLOGY

Rank: Assistant Professor

Split: 70% Research, 30% Teaching

Duties: Research and teaching in plant evolutionary ecology/biology

The Department of Plant and Microbial Biology < <https://cals.ncsu.edu/plant-and-microbial-biology/> > at North Carolina State University invites applications for an Assistant Professor position in Plant Evolutionary Biology. This position is a 9-month, tenure-track position with responsibilities divided between research and teaching. We seek an individual who uses innovative approaches to understand molecular mechanisms underlying plant evolution and adaptation. Areas of emphasis may include but are not limited to comparative biology, speciation, phylogeography, phylogenetics, evolution of form and function, and systematics. Priority will be given to candidates who bridge molecular to organismal understanding of evolution and thus will benefit from/contribute to existing programs in the Department of Plant and Microbial Biology < <https://cals.ncsu.edu/plant-and-microbial-biology/about/> > and the N.C. Plant Sciences Initiative < <https://cals.ncsu.edu/psi/> >. The successful candidate will be expected to develop a productive, extramurally-funded research program that enhances and complements existing programs in the department and college.

Initial teaching expectation will be 1-2 courses per year. Teaching will depend on the individual's areas of expertise, but may include graduate and undergraduate courses in Plant Evolution covering plant evolutionary

theory and mechanisms, innovations in form and function, and molecular tools for inference. Candidates will also be expected to mentor graduate and undergraduate students in research.

The Department of Plant and Microbial Biology spans research and teaching from molecular to organismal and ecosystem scales. Faculty in the Department have access to excellent core facilities < <https://cals.ncsu.edu/research/research-facilities/> > for plant research including the Phytotron < <https://phytotron.ncsu.edu/> >, multiple greenhouses, a Vascular Plant Herbarium < <https://herbarium.ncsu.edu/> > and the Genomic Sciences Laboratory < <https://research.ncsu.edu/gsl/> >. We are also part of the Plant Sciences Initiative < <https://cals.ncsu.edu/psi/> >, a multidisciplinary hub that aims to improve the world through plant science innovation.

Candidates must have a PhD degree in plant biology, evolutionary biology or a related discipline, with expertise in plant evolution and a record of peer-reviewed publications and scholarly accomplishments commensurate with experience. Postdoctoral and teaching experience are preferred. To apply, please go to the TT Assistant Professor of Plant Evolutionary Biology position linked here < <https://jobs.ncsu.edu/postings/212128> > and apply on the NCSU jobs site (jobs.ncsu.edu).

Applicants should attach to the online application: 1) a cover letter, 2) a CV, 3) a 2-3 page research statement which integrates past and future research directions, and 4) a 1-2 page teaching philosophy statement that articulates goals and approaches to student-centered teaching and learning, and evidence from prior or current teaching and mentoring. In addition, applicants should provide the names and contact information for three references. Letters of recommendation on behalf of top candidates will be requested later in the selection process. Review of applications will begin on January 13, 2025 and will continue through Spring of 2025.

You Belong Here! At NC State, our goal is for all employees to reach their fullest potential at work. Our Employee Value Proposition < <https://news.hr.ncsu.edu/you-belong-here> > describes what makes NC State the best place to learn and work for everyone.

NC State University is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, national origin, religion, sex, gender identity, age, sexual orientation, genetic information, status as an individual with a disability or status as a protected veteran. Individuals with disabilities requiring disability-related accommodations in the application and interview process are welcome to contact 919-513-0574 to



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Norwich UK Metagenomics

Research Scientist (Metagenomics)

Applications are invited for a Research Scientist to join the Laboratory of Dr Hildebrand in the Gut Microbes and Health programme at Quadram Institute Bioscience (QIB), based in Norwich, UK.

Background:

Join an ERC funded research project investigating the inheritance and evolution of human associated microbes. The project will be conducted in a multidisciplinary team at the Quadram & Earlham Institutes, UK, and combine newly established patient cohorts, concomitantly developed wetlab and bioinformatics protocols that enable a unique perspective into microbiomes.

The role:

How do gut bacteria colonize their human hosts and families? How do they then persist for decades in the same host? And how do they evolve and adapt to their unique human host? How do we investigate bacteria with specialized metabolism in microbiomes? The aim for this post is to dissect the microbial genetics enabling human long-term colonization on a novel family centric cohort established in the UK.

High-resolution metagenomics will be used to track microbes - eukaryotic and prokaryotic - across individuals and in families, and determine genes under selection. This will include closely working with metagenomic bioinformatics (assembly, genome binning, gene predictions) and combining this with population genetics and/or network inference algorithms. Thus, exploring microbiomes at unprecedented resolution can resolve eco-evolutionary processes determining resilience and functional plasticity of natural microbiomes.

The environment:

The Hildebrand group (<https://falk.science>) uses metagenomics to research the diversity, community interactions, and evolution of microbes in communities using custom software solutions. The group has a joint

appointment between the Quadram Institute Bioscience and Earlham Institute to bridge data and life science, developing software such as LotuS2 and MATAFILER and pushing the limits of high-resolution metagenomics.

The Norwich Research Park (NRP) UK, hosts 4 BBSRC Institute, > 15 companies, 3,000 researchers and clinicians, 17,000 students. The Quadram Institute is a new interdisciplinary research institute dedicated to understanding how food and microbes interact to promote health and prevent disease. Its mission is to deliver healthier lives through innovation in gut health, microbiology and food. A partnership between Quadram Institute Bioscience, the University of East Anglia, the Norfolk and Norwich University Hospital and BBSRC, it brings together scientists and clinicians in a state-of-the-art building on the NRP, being one Europe's largest centres for microbiology and life sciences (<https://quadram.ac.uk/>).

Norwich ranked in the top 10 for UK cities with a beautiful, historical town centre and an active gastropub & coffee aficionado scene.

The ideal candidate:

The applicant needs to hold a PhD (or equivalent) in biology, bioinformatics, computer science or a related discipline with a background and/or interest in at least one of the following subjects:

- Microbiomes & biodiversity - Metagenomics & patient cohorts - Ecology & evolution

The ideal candidate will have experience in conducting scientific experiments independently, writing papers, presenting work and grant writing. Basic statistics and programming skills (either R, python, Perl, C++, or equivalent) is essential. Specialized skills will be taught and developed through mentorship and collaborations.

Additional information:

Salary on appointment will be within the range $\pounds 36,720$ to $\pounds 44,000$ per annum depending on qualifications and experience. This is a full-time post for a contract of 24 months.

For further information and details of how to apply, please visit our website <https://jobs.quadram.ac.uk> or contact the Human Resources team on 01603 450814 or nbi.recruitment@nbi.ac.uk quoting reference 1004793. This role meets the criteria for a visa application, and we encourage all qualified candidates to apply. Please contact the Human Resources Team if you have any questions regarding your application or visa options.

We are committed to equal opportunities and welcome applications from all sectors of society. The Institute supports equality of opportunity within the workplace

and expects all employees to share and display these values. To support our commitment, we have a range of family, faith and diversity friendly working arrangements to help all staff achieve excellence in their area of work. As a Disability Confident employer, we guarantee to offer an interview to all disabled applicants who meet the essential criteria for this vacancy.

The closing date for applications will be 27 January 2025. Interviews will likely be held on 7 February 2025.

The Quadram Institute Bioscience is a registered charity (No. 1058499)

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NTNU TaipeiTaiwan BiologyBiostatistics

Full-time Regular/Fixed-term Faculty in Life Science

School of Life Science, National Taiwan Normal University, Taipei, Taiwan

The School of Life Science (<https://www.sls.ntnu.edu.tw/index.php/en/home.en/>) at the National Taiwan Normal University invites qualified candidates for a full-time open rank (Assistant, Associate, or Full Professor) position in biological sciences.

Scientists working in all areas of biological sciences are encouraged to apply. The successful candidate will be expected to have a good publication record, to establish and maintain an active and externally-funded research program and to supervise graduate students. The successful candidate will be expected to teach courses in biostatistics (to undergraduate and/or graduate students) or general biology (to life science majors and/or non-majors). The successful candidate will also be expected to teach undergraduate and graduate courses in his/her area of expertise.

The appointment will be made as regular or fixed-term faculty (a 3-year term with the possibility to be re-appointed as regular faculty at the end of the term contingent upon a satisfactory performance evaluation).

The successful candidate will start on August 1st, 2025

or February 1st, 2026 depending on the recruitment process.

Minimum Qualifications:

The successful candidates,

[1] should have a Doctoral degree in biology or a related field.

[2] be able to teach courses using fluent English as a Medium of Instruction (EMI).

[3] should have published (I) at least two papers in SCI journals as the first or corresponding author, or (II) at least one paper in an SCI journal with an impact factor > 25 (e.g. Science, Nature, Cell) as the first or corresponding author within the past three years.

Desired Qualifications:

[1] post-doctoral research experience.

[2] university-level teaching experience, especially experience of teaching in English to non-native English speakers.

Application Documents:

[1] Curriculum vitae with education and work history.

[2] Copies of degree certificates including doctoral, master's and bachelor's degrees, and relevant professional certificates.

[3] List of publications for the past three years. (Please provide the impact factor and journal ranking for each publication; for publications in press, a copy of the acceptance letter should be included.)

[4] Full-text copies of publications in the past three years. (Please mark one of the publications as the representative work.)

[5] A statement of research interests and plans.

[6] A teaching statement including potential courses the candidate could teach or develop (with the title and 16-week syllabus for each of the courses). All courses must be designed and delivered as EMI (English as a Medium of Instruction) courses.

[7] (I) Names and contact information (mailing address, email and phone number) of three professional referees and (II) arrange for them to email the letters of recommendation directly to Ms. Sun (sunny@ntnu.edu.tw) with 'Letter for EMI professor' in the subject line before January 31, 2025..

To apply:

Send application documents (post-marked no later than January 31, 2025) via registered mail to:

Dr. Yuying Hsu, Professor and the Dean of School of

Life Science

School of Life Science, National Taiwan Normal University

No. 88, Sec. 4, Tingzhou Rd., Taipei 11677, Taiwan

For additional information, contact Ms. Sun at:

Tel: 886-2-7749-6280

Email: sunny@ntnu.edu.tw

Yuying Hsu <yuyinghs@ntnu.edu.tw>

(to subscribe/unsubscribe the EvolDir send mail to gold-ing@mcmaster.ca)

PennsylvaniaStateU ResearchTech Symbiosis

JOB DESCRIPTION AND POSITION REQUIREMENTS:

The Bordenstein Laboratory (bordensteinlab.com) at Penn State University's Departments of Biology and Entomology and One Health Microbiome Center (microbiome.psu.edu) seeks two Research Technologists - Life Sciences (Advanced Professional) to design, implement, support, analyze, and report on research in the evolution of host-microbe symbioses spanning the widespread bacterial endosymbiont in animals (*Wolbachia*), its bacteriophage WO, and the mechanisms they deploy to parasitize sexual reproduction. The positions will take organismal-to-molecular approaches and heavily focus on the use of *Drosophila*, transgenic expression, genetic editing techniques, fitness assays, phage purifications, reproductive tissue dissections, fluorescent and electron microscopy, and team management to understand the evolutionary genetics and mechanisms of how endosymbiotic bacteria (*Wolbachia*) modify reproduction in *Drosophila melanogaster*.

APPLICATION INFORMATION

Application materials should include a single pdf with (i) a cover letter summarizing relevant experience and reasons for interest in the job, (ii) a CV that includes contact information for three or more references (name, position, telephone number, and e-mail address) and (iii) full length and first-authored works of research spanning papers, reports, posters, and presentations.

Job Link: https://psu.wd1.myworkdayjobs.com/-en-US/PSU_Staff/job/Research-Technologist—Life-

Sciences-Advanced-Professional_REQ_0000062556-1 CRITERIA AND DUTIES

The successful candidate will have priority tasks in the following areas:

- Independent experimental design, implementation, analysis, time management, and reporting
- Preparation and adherence to new scientific protocols, specimen evaluation, and biostatistics
- Coauthorship of scientific papers, grants, presentations, and summary reports
- Contribution to research methods, solutions, and technical approaches for problem solving
- Data collection, data analysis, statistics, and visualizations
- Management of trainees for molecular biology skills, biosafety measures, lab policies, equipment, proper record keeping, organismal maintenance, and performance review
- Various experimental tasks, including but not limited to insect handling, tissue dissections, biological marker staining, fluorescent microscopy, microinjections, and genotyping and quantification of insect and symbiont cells using PCR and qPCR
- Daily handling and maintenance of laboratory insect colonies at the scale of hundreds to thousands of insects per day
- Troubleshooting of emergencies, day-to-day questions by lab members, and laboratory scheduling
- Assistance of lab management and ongoing entomology, microbiology, molecular biology experiments, as assigned
- Maintenance of a welcoming, safe, and professional environment adherent to lab expectations

EDUCATION AND EXPERIENCE

- Requires at least a Bachelor's degree or higher plus three or more years of work related experience, or an equivalent combination of education and experience.
- Excellent problem-solving, interpersonal, organizational, communication, and documentation skills are essential.
- The successful candidate must be able to work within a team environment and demonstrate a genuine appreciation in working, leading, and managing diverse audiences.

The Pennsylvania State University is committed to and accountable for advancing diversity, equity, inclusion, and sustainability in all of its forms. We embrace in-

dividual uniqueness, foster a culture of inclusion that supports both broad and specific diversity initiatives, leverage the educational and institutional benefits of diversity in society and nature, and engage all individuals to help them thrive. We value inclusion as a core strength and an essential element of our public service mission.

Community:

Pennsylvania State University is a Land-Grant university located in central Pennsylvania. State College and the surrounding communities are home to approximately 100,000 people, including over 45,000 students. The area is known for its highly ranked livability, access to nature spanning beautiful mountains, streams, and parks, and superb recreational opportunities and sports. State College has an excellent school system and offers a multitude of cultural events.

The salary range for this position, including all possible grades is:

\$42,100.00 - \$61,000.00 Salary Structure - additional information on Penn State's job and salary structure.

Seth Bordenstein, Ph.D.

Dorothy Foehr Huck and J. Lloyd Huck Endowed Chair in Microbiome Sciences

Professor of Biology and Entomology

Director of the One Health Microbiome Center

Huck Institutes of the Life Sciences

Pennsylvania State University

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SGN Frankfurt PopulationGenomicsOfVertebrates

Job offer ref. #11-24009

The Senckenberg Gesellschaft für Naturforschung (SGN) is a member of the Leibniz Association and is based in Frankfurt am Main, Germany. SGN conducts natural history research with more than 800 employees and research institutions in six federal states. Within SGN, the

Senckenberg Biodiversity and Climate Research Centre (SBIK-F) explores the interactions between biodiversity, climate, and society.

The Senckenberg Biodiversity and Climate Research Centre invites applications for a

PhD position (m/f/d) in Population Genomics of Vertebrates

(65 %)

There is an exciting opportunity for a talented and motivated applicant to join the working group of Prof. Dr. Axel Janke. The applicant is expected to be closely involved in evolutionary, population or phylo-genetics to study speciation in mammals (bears, giraffe, kangaroos or allies) at the genomic level. The likely project will involve giraffe genomics.

Your profile:

Master degree in Biology, Genetics, Bioinformatics or a related field
Strong interest and proven skills in genomic evolutionary-, population- and/or phylogenomic analyses, in particular drift-related processes, speciation, and population statistics.
Experience in analyzing NGS and programing of scripts, R
Very good written and oral communication skills in English
Interest to be involved in an international and interdisciplinary group to expand the work to species distribution modeling, paternal inference and conservation genetics

What is awaiting you?

a workplace in a central location with good transport connections in the heart of Frankfurt - flexible working hours - opportunities for mobile working - support with childcare or caring for family members (certified by the "audit berufundfamilie") - Senckenberg badge for free entry in museums in Frankfurt - special annual payment - company pension scheme

Place of employment: Frankfurt am Main
Working hours: part-time (65%)
Type of contract: The contract should start preferably on March 1st, 2025 and is limited to three years

Salary: according to the collective agreement of the State of Hesse (pay grade E 13, TV-H)

Senckenberg is committed to diversity. We benefit from the different expertise, perspectives and personalities of our staff and welcome every application from qualified candidates, irrespective of age, gender, ethnic or cultural origin, religion and ideology, sexual orientation and identity or disability. Women are particularly encouraged to apply, as they are underrepresented in the field of this position and will be given preference in the case of equal qualifications.

Applicants with disabilities (“Schwerbehinderung”) will be given preferential consideration in case of equal suitability. Senckenberg actively supports the compatibility of work and family and places great emphasis on an equal and inclusive work culture.

You would like to apply?

Then please send us your complete and informative application documents (CV, letter of motivation, academic transcripts and certification / credentials, two relevant publications, and contact details of two potential references to) in electronic form (as a single PDF file) by 15.01.2025 to recruiting@senckenberg.de, quoting the reference number #11-24009, or apply directly on our homepage using the online application form.

Senckenberg Gesellschaft für Naturforschung Senckenberganlage 25 60325 Frankfurt a.M. E-Mail: recruiting@senckenberg.de

For scientific enquiries please contact Prof. Dr. Axel Janke axel.janke@senckenberg.de .

For more information about the Senckenberg Gesellschaft für Naturforschung, please visit www.senckenberg.de . Mit freundlichen Grüßen Sabine Heinrichsohn

Referentin Recruiting/HR Department & Personalmarketing Tel.: 069 7542 1309 Mail: recruiting@senckenberg.de

“sabine.heinrichsohn@senckenberg.de”
<sabine.heinrichsohn@senckenberg.de>

(to subscribe/unsubscribe the EvolDir send mail to goldring@mcmaster.ca)

SwarthmoreC Philadelphia 2yr EvolutionBiology

<https://apply.interfolio.com/159823> The Department of Biology at Swarthmore College invites applications for a full-time, 2-year Visiting Assistant Professor position to begin fall semester 2025. Teaching responsibilities are projected to include one intermediate level course with weekly laboratories or field work each semester. Over the two-year appointment, at least evolutionary biology and one other ecology, conservation, animal physiology, or other related course would be taught.

Visiting faculty teach a similar course load as tenure-track faculty, are provided mentoring and professional

development opportunities, and are eligible for funds to support research, conference travel, and student summer research. The 200 acre Crum Woods adjacent to campus can be used for teaching and research if desired.

Located in the suburbs of Philadelphia and near Wilmington DE, Swarthmore College is a highly selective liberal arts college whose mission combines academic rigor with social responsibility. The Swarthmore undergraduate student body has 44% U.S. minority enrollment and 11% international enrollment. Swarthmore has a strong institutional commitment to diversity, and actively seeks and welcomes applications from candidates with exceptional qualifications, particularly those with demonstrable commitments to a more inclusive society and world. Applicants from traditionally underrepresented groups are strongly encouraged to apply. For more information on Faculty Diversity and Excellence at Swarthmore, see: <http://www.swarthmore.edu/faculty-diversity-excellence/information-candidates-new-faculty> Qualifications

Applicants should have a Ph.D. in Biology or a related field completed by August 2025, teaching experience, and a strong commitment to teaching undergraduates from diverse backgrounds.

Applicants should include:

A cover letter describing your interest in this position and highlighting your qualifications.

A curriculum vitae.

A research statement that describes both research interests and also potential research activities that could involve Swarthmore undergraduates.

A teaching statement that describes your teaching experience and philosophy, including ideas for an intermediate course with weekly laboratories that you could teach when not teaching Evolution.

Candidates should discuss in their cover letter, teaching statement, and research statement what experience and plans they have for creating a more inclusive environment for students.

Three letters of recommendation, including at least one letter specifically commenting on teaching.

Applications will not be considered until letters of recommendation have been submitted. Please address any questions you may have to Alison Danilak, Biology Department at adanila1@swarthmore.edu.

Applications received by January 15, 2025 will receive full consideration. Apply via Interfolio at apply.interfolio.com/159823. Applications will be reviewed on a rolling basis until the position is filled. Selected

applicants will be invited for interviews.

Vince Formica, Ph.D. Chair of the Biology Department
Associate Professor Swarthmore College FormicaLab.org

Vincent Formica <vformic1@swarthmore.edu>

(to subscribe/unsubscribe the EvolDir send mail to gold-
ing@mcmaster.ca)

TexasAMU MarineVegetationEvolution

Assistant/Associate Professor, Biology

Job Title Assistant/Associate Professor, Biology Agency
Texas A&M University - Corpus Christi Department Col-
lege of Science - Life Sciences Proposed Minimum Salary
Commensurate Job Location Corpus Christi, Texas
Job Type Faculty Job Description The Department
of Life Sciences < [https://www.tamucc.edu/science/
departments/life-sciences/index.php](https://www.tamucc.edu/science/departments/life-sciences/index.php) > at Texas A&M
University-Corpus Christi invites applications for a 9-
month tenure-track Assistant/ Associate Professor of
Biology. The incumbent will support our education
mission at the undergraduate, M.S. and PhD levels,
and will be expected to develop an externally-funded
research program. While preference will be given to ap-
plicants with expertise in marine and coastal vegetation
using molecular approaches, we welcome all applicants
who complement and expand our multidisciplinary fac-
ulty. The preferred start date is September 1, 2025,
but earlier or later dates are negotiable. Competitive
startup package and research lab space will accompany
the position.

University and Department Texas A&M University-
Corpus Christi is a vibrant, Hispanic and Minority Serv-
ing R2 Doctoral Research Institution that proudly pro-
vides a solid academic reputation, renowned faculty, and
highly rated degree programs since 1947. The University
has a heritage of teaching excellence with innovation
in research and community engagement as part of the
distinguished Texas A&M System. TAMU-CC is the
only university in the nation located on its own island,
at the heart of the Texas Gulf Coast. With palm tree
lined pathways throughout the campus, nearby natural
wetlands, a scenic hike-and-bike trail and pristine views
of the beach and bays, Texas A&M University-Corpus
Christi is a first-choice institution.

Ample opportunities exist for collaboration with

researchers from the Department of Life Sciences
< [https://www.tamucc.edu/science/departments/
life-sciences/index.php](https://www.tamucc.edu/science/departments/life-sciences/index.php) > and the Department of
Physical and Environmental Sciences < [https://
www.tamucc.edu/science/departments/physical-
sciences/index.php](https://www.tamucc.edu/science/departments/physical-sciences/index.php) > as well as from the University's
strong portfolio of research institutions such as the
Harte Research Institute for Gulf of Mexico Studies
< <https://www.hartheresearch.org/> >, Center for
Coastal Studies < [https://www.tamucc.edu/science/
research/ccs/](https://www.tamucc.edu/science-research/ccs/) > and Conrad Blucher Institute <
<https://www.conradblucherinstitute.org/>>, and
agency such as Texas A&M AgriLife-Corpus Christi <
<https://ccag.tamu.edu/>>. Our unique location and
proximity to coastal marshes, wetlands, mangroves and
other vegetation types provide many opportunities for
research and teaching.

The Department of Life Sciences has 23 full-time
tenured or tenure-track faculty, five professional track
faculty, and over 1,200 science majors (including un-
dergraduate and graduate students) offering B.S. de-
grees in Biology and Biomedical Science, M.S. de-
grees in Biology, Marine Biology, and Fisheries and
Mariculture, and a Ph.D. in Marine Biology ([http://
www.marinebiology.tamucc.edu](http://www.marinebiology.tamucc.edu)). This position may
also further expand and complement the Coastal and
Marine System Science MS and Ph.D. programs ([http://
cmss.tamucc.edu/](http://cmss.tamucc.edu/)). During the last three years, the
Department's research activities have resulted in an
annual average of 20 grants (including NSF, NOAA, EPA,
USDA, and NIH) with research expenditures in the
range of \$3,000,000. The Department of Life Sciences
is housed in the newest building on campus, Tidal Hall,
with:

- * 108,000 Gross Square Feet / 65,000 Usable Square Feet
- * 3 floors plus a machinery floor on the roof * 63,640
square foot general research labs plus support rooms
- * Nine teaching labs, including three BSL-2 teaching
labs. * 44 Faculty/Staff offices * Desk areas for graduate
students and post-docs * Genomics Core Laboratory
and High-Performance Computing Cluster

Job Duties The successful candidate will be expected to
develop a vigorous, externally funded research program,
supervise graduate students, and teach undergraduate
and graduate courses, preferably in the areas of cellular
and molecular biology and/or plant biology. They may
also offer a specialty course in their field of expertise if
there is sufficient demand. The teaching load is 3 courses
per academic year. The successful candidate is expected
to contribute to service activities commensurate with
the position.

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UCambridge EcologyandEvolution

Professor of Ecology and Evolutionary Biology at Department of Zoology, University of Cambridge, UK

The Board of Electors to the Prince Philip Professorship of Ecology and Evolutionary Biology invites applications for this position. The successful applicant will take up appointment from 1 October 2025, or as soon as possible thereafter, and will hold the Professorship until the retirement age.

Full details are here: <https://www.hr.admin.cam.ac.uk/files/princephilip.pdf> To apply go here: <https://www.jobs.cam.ac.uk/job/48966/> The Department of Zoology seeks to appoint a scientist of outstanding calibre. Our new colleague will be recognised internationally for the originality and impact of their research in ecology or evolutionary biology (or both), with the potential for links to conservation biology. The Professor will be based in Cambridge. Standard professorial duties include teaching and research, examining, supervision and administration. A competitive salary and start-up package will be offered.

The University actively supports equality, diversity and inclusion and encourages applications from all sections of society. The University has a responsibility to ensure that all employees are eligible to live and work in the UK.

Applications, consisting of a cover letter of application, a statement of current and future research plans (of up to 4 pages), a curriculum vitae and a publications list, along with details of three referees should be made online no later than 6 January 2025. The cover letter should explain how the applicant meets the criteria in the Person Specification (set out in the Further Particulars).

Informal enquiries may be directed to Prof Rebecca Kilner, Head of the Zoology Department email: HoD@zoo.cam.ac.uk. Please quote reference PF43857 on your application and in any correspondence about this vacancy.

Rebecca Kilner <rmk1002@cam.ac.uk>

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UCambridge EvolutionaryGenomics

Associate Professor / Professor of Evolutionary Genomics, University of Cambridge

<https://www.jobs.cam.ac.uk/job/49389/> The School of Biological Sciences is pleased to invite applications for four new Grade 10 or Grade 11 (depending on experience) Professorship positions, available from October 2025: - Associate Professor / Professor of Evolutionary Genomics - Associate Professor / Professor of Infection and/or Immunity - Associate Professor / Professor of Developmental Plasticity and Robustness - Associate Professor / Professor of Molecular and Cellular Biology

SALARY $\dot{u}_i \frac{1}{2} 62,098$ or $\dot{u}_i \frac{1}{2} 67,757$

CLOSING DATE 26 January 2025

The posts align with School's research strategy to foster innovative research across disciplinary boundaries.

The focus of the Associate Professor / Professor of Evolutionary Genomics will be to build a world-leading research programme, deliver excellent teaching, and to positively engage with academic leadership both in the home Department(s) and across the School of Biological Sciences.

Applications are welcomed from all areas of evolutionary genomics, with areas of particular interest including the reticulate nature of species relationships resulting from introgression or horizontal gene transfer, environmental genomics, and new perspectives on how extant and historic ecological and environmental interactions influence genome evolution. Development of novel sequencing technologies, or expertise in the implementation and development of mathematical and computational methods, which could include AI or ML approaches, to drive advances in evolutionary genomics are equally of interest. We will support the successful candidate to develop a scientific programme that complements and reinforces the existing portfolio in this important research area. The post holder will build strategic strength across the Functional and Evolutionary Genomics Theme, as well as connections with colleagues in the Organisms, Evolution and Planetary Resilience Theme.

Academic responsibilities associated with this role will include delivering undergraduate and postgraduate lectures, practical classes and small group supervisions,

engaging with the Research Theme initiatives, and positively contributing to the inclusive and collaborative ethos of the School. Mentoring and professional development of staff and students is expected as part of our inclusive and supportive community.

The departmental home for this exciting new position will be collaboratively discussed with the candidate to ensure best strategic fit based on expertise and research direction.

We particularly welcome applications from women, candidates who identify as Black or Asian and those who consider themselves to be racialized minorities, as they are currently under-represented at this level in the School of Biological Sciences.

We offer mentoring and access to inclusion networks to support and empower individuals and enable an inclusive research culture.

Click the 'Apply' button below to register an account with our recruitment system (if you have not already) and apply online.

Applications, including a 1500-word statement on current and future research plans, a curriculum vitae and publications list, a brief narrative (maximum 300 words per output) on your three most significant outputs, a one-page statement on your teaching experience, contributions to open research and research culture improvement, and your perspective on Equality, Diversity, and Inclusion, along with three referees' details, should be submitted online by 26th January 2025.

The University of Cambridge is a signatory to the San Francisco Declaration on Research Assessment (DORA), and we are committed to assessing research on the basis of its merits rather than the journal or venue in which it is published.

Applicants should not include Journal Impact Factors or journal titles as a proxy for research quality in their applications. For more information: <https://www.biology.cam.ac.uk/files/dora.pdf> Please quote reference PC44239 on your application and in any correspondence about this vacancy.

The University actively supports equality, diversity and inclusion and encourages applications from all sections of society.

The University has a responsibility to ensure that all employees are eligible to live and work in the UK.

Further information - Further Particulars <https://www.jobs.cam.ac.uk/job/49389/file/-PC44239-Further+Particulars.Assoc+Prof.Prof+of+Evolutionary+Genomics.pdf>

"F. M. Jiggins" <fmj1001@cam.ac.uk>

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UCentralFlorida Two EvolBiology

The Biology Department at the University of Central Florida is advertising for two tenure track positions:

TT Asst. Prof. Plant Biologist <https://jobs.ucf.edu/-jobs/assistant-professor-integrative-plant-biology-orlando-florida-united-states-f7de9812-91c2-4911-b947-b6d1470f5287> TT Asst. Prof. Landscape

Ecologist <https://jobs.ucf.edu/jobs/assistant-professor-landscape-ecologist-orlando-florida-united-states> On behalf of the search committee, Christina Kwapich

Christina Kwapich Assistant Professor University of Central Florida Department of Biology 4110 Libra Dr Orlando, FL 32816

Christina Kwapich <Christina.Kwapich@ucf.edu>

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UGeorgia QuantitativeInsectPopBiology

The Department of Entomology at the University of Georgia (UGA) invites applications for a tenure-track position (9 months) in quantitative insect ecology at the Assistant Professor rank.

Description The position includes research (70%), teaching (25%), and service (5%). The appointee will be expected to build a nationally prominent, extramurally funded, research program that complements existing strengths in the Entomology Department, as well as contribute to undergraduate and graduate teaching and service. The successful candidate will potentially teach quantitative approaches and methods of statistical inference at the undergraduate and graduate levels in their area of expertise and other courses depending on candidate expertise and departmental need. In addition to strengthening and complementing existing programs in the department, the emerging research program is expected to be collaborative and multidisciplinary with a

focus on solving important or emerging problems. This individual is also expected to be active in departmental and university service, and professional activities and outreach.

We seek candidates with expertise in modeling at landscape, community, population and/or genomic scales, or other related fields of study that include a strong quantitative modeling component associated with insects and their relatives. Approaches might include mathematical, statistical, computational, machine learning, or GIS-based modeling.

Applicants should have a record of scholarly activities in their field as demonstrated by peer-reviewed publications and/or extramural funding for their research. Postdoctoral experience (one or more years) and experience in teaching in a classroom setting (one or more semesters) are preferred.

Please see the full job posting and application details here: <https://www.ugajobsearch.com/postings/406466> Direct any questions to William Snyder, Search Committee Chair, at wesnyder@uga.edu

Sofia Anna Varriano <svarriano@uga.edu>

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UppsalaU AnimalEvolutionaryEcology

Uppsala University Department of Ecology and Genetics
Animal Ecology Rank: Associate Professor Split: 50% Research, 50% Teaching/Other Duties: Research and teaching in evolutionary ecology

Associate Professor in Animal Ecology with specialization in Evolutionary Ecology

The Department of Ecology and Genetics at Uppsala University (www.ieg.uu.se) is now seeking to strengthen our research program in Animal Ecology (<https://www.uu.se/en/department/ecology-and-genetics/research/animal-ecology>). We are looking for a senior lecturer with an expertise in evolutionary ecology, to complement the current research activities in our program.

Description of subject area of the employment: Candidates should conduct integrative research in animal ecology with specialization in evolutionary ecology. This would broadly involve empirical studies of the ecological

and evolutionary ramifications of interactions between behaviour, morphology, life history, physiology and genetics/genomics on the one hand and the environment on the other.

Duties: Research, teaching and administration. Teaching duties include course responsibility and course administration and supervision of students at bachelor's, master's, and doctoral levels within ecology and evolutionary ecology. If the successful candidate is initially not able to teach in Swedish, they will be expected to develop this capacity, and will be offered support for language acquisition.

Qualifications Required: PhD in biology or equivalent relevant scientific expertise. Applicants must have completed teacher training of relevance to operations at the University, comprising ten weeks, or have acquired the equivalent knowledge. If special circumstances apply, this training for teachers in higher education may be completed during the first two years of employment.

For further more detailed information, as well as for instructions on how to apply, please see: [https://www.uu.se/en/about-uu/jobs-and-vacancies/job-details?queryw1392](https://www.uu.se/en/about-uu/join-us/jobs-and-vacancies/job-details?queryw1392) Welcome to submit your application no later than February 7, 2025. International candidates will find information about working and living in Sweden at <https://www.uu.se/en/about-uu/join-us>. Uppsala University is a broad research university with a strong international position. The ultimate goal is to conduct education and research of the highest quality and relevance to make a difference in society. Our most important asset is all of our 7,600 employees and 53,000 students who, with curiosity and commitment, make Uppsala University one of Sweden's most exciting workplaces.

Prof. Goran Arnqvist FRES Scientific Advisor, Swedish Collegium for Advanced Study Animal Ecology Department of Ecology and Genetics Uppsala University Norbyvägen 18D SE75236 Uppsala Sweden

Email: Goran.Arnqvist@ebc.uu.se Phone: +46-(0)18-471 2645 Cell phone: +46-(0)70-2935032 Fax: +46-(0)18-471 6484

<https://scholar.google.com/citations?user=pFcs3sYAAAAJ&hl=en> <http://arnqvist.org> När du har kontakt med oss på Uppsala universitet med e-post så innebär det att vi behandlar dina personuppgifter. För att läsa mer om hur vi gör det kan du läsa här: <http://www.uu.se/om-uu/dataskydd-personuppgifter/> E-mailing Uppsala University means that we will process your personal data. For more information on how this is performed, please read here: <http://www.uu.se/en/about-uu/data-protection->

policy Goran Arnqvist <Goran.Arnqvist@ebc.uu.se>
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more information on how this is performed, please read here: <http://www.uu.se/en/about-uu/data-protection-policy> Henrik Lantz <henrik.lantz@imbim.uu.se>

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UppsalaU Sweden BioinformaticianPipelines

Dear all,

The bioinformatics infrastructure NBIS (National Bioinformatics Infrastructure Sweden; a part of SciLifeLab) is hiring a bioinformatician with focus on pipeline development. The position is in Uppsala, Sweden, and it is a permanent position as staff scientist (not a post doc). NBIS is built up of 120 highly talented bioinformaticians, system developers, and data stewards, all working to support Swedish researchers. We also have a strong international component with a lot of collaboration in European projects, not the least through ELIXIR where NBIS also constitutes the Swedish node (ELIXIR-SE). NBIS is a great place to learn and grow as a bioinformatician, with hundreds of exciting projects every year and a lot of support available from highly talented colleagues, and we are now hoping to add even more talent to our teams!

The position focuses on supporting Swedish researchers with Nextflow development. We require experience of pipeline development (with examples of own developed pipelines available in an online repository like GitHub), but do not require Nextflow experience specifically. If you for example have experience in Snakemake and have a keen interest to learn Nextflow, we encourage you to apply! There are experienced Nextflow developers in NBIS that you can learn from.

Find more information and how to apply here (email applications not accepted): <https://www.uu.se/en/about-uu/join-us/jobs-and-vacancies/job-details?query=-778701> Deadline Jan 20, 2025.

Best regards, Henrik

Henrik Lantz Support manager, NBIS/SciLifeLab Uppsala, Sweden

Ni₂r du har kontakt med oss pi₂ Uppsala universitet med e-post si₂ innebär₂ det att vi behandlar dina personuppgifter. Fi₂r att li₂sa mer om hur vi gi₂r det kan du li₂sa hi₂r: <http://www.uu.se/om-uu/-dataskydd-personuppgifter/> E-mailing Uppsala University means that we will process your personal data. For

USFWS Pennsylvania MetabarcodingGeneticist

Summary This position is a Geneticist, GS- 0440-12 working in Lamar, Pennsylvania for the R5-Lamar NFH and Northeast Fishery Center.

Duties The Northeast Fishery Center, located in Lamar, Pennsylvania. Lamar is located in a rural area surrounded by agriculture, state forest and game lands, high-quality fishing streams, and near college towns including State College, PA, the home of Penn State University, and Lock Haven, PA where Lock Haven University is located.

The Northeast Fishery Center includes both the Lamar Fish Technology Center and Lamar Fish Health Center. The Lamar Fish Technology Center provides research capabilities and technical expertise in areas including fish culture, population dynamics, and conservation genetics. The Conservation Genetics Lab works closely with partners in the FWS and elsewhere to apply genetic methods to issues conservation, and focuses on population genetics, environmental DNA, and genomics applications. The Conservation Genetics Lab works with partners to develop, conduct, and interpret genetics projects. Genetic projects include monitoring estimates of genetic diversity, defining populations, identifying species, and conducting environmental DNA analysis and research in the lab and field. The duties for this position include, but are not limited to:

- Coordinate, lead, and manage genetics projects focusing on metabarcoding applications
- Develop and lead research related to application of genetic methods for detection of invasive species bioinformatics analysis resulting from metabarcoding data
- Provide technical expertise for genetic data analysis and data management
- Provide technical assistance and conduct genetic sequence alignments for genomic sequencing
- Provide overall technical coordination and interpretation and conduct complex molecular genetics analyses for a variety of projects
- Provide oral presentation at workshops, symposia, and other scientific meetings

Requirements Conditions of Employment

* Must be a U.S. Citizen or National. * Suitability for employment, as determined by background investigation. * Probationary Period: Selectees may be required to successfully complete a probationary period. * Individuals assigned male at birth after 12-31-59 must be registered for Selective Service. To verify registration, visit SSS.gov. * Driver's License: Selectees MAY be required to possess and maintain a valid State driver's license at all times during their tenure. * Uniform: Official U.S. Fish and Wildlife Service uniform MAY be required.

Qualifications Only experience and education obtained by the closing date 01/03/2025 will be considered.

In order to qualify for this position you must possess both the Basic Requirement and Minimum Qualification.

Basic Requirement: Possess a degree with a major in genetics; or one of the basic biological sciences that included at least 9 semester hours in genetics. Graduate Education: Genetics, or a curriculum or pattern of training that placed major emphasis on genetics. Graduate study in related fields such as agronomy, horticulture, animal, dairy, or poultry husbandry, entomology, microbiology, plant pathology, chemistry, molecular and cellular biology, and physiology that involved cross-training in genetics is qualifying, provided it placed sufficient emphasis on genetics.

Minimum Qualification [GS-12]: One year of professional experience equivalent to the GS-11 level in the Federal service. Examples of qualifying specialized ex-

perience may include: 1) Conduct complex molecular genetic analyses for a variety of projects working with different species and genetic analysis methods (e.g. environmental DNA analyses including quantitative PCR and metabarcoding, or to determine genetic similarities and relationships, assign individuals to population of origin, quantify levels of genetic variation within and among populations, and identify species and sex); 2) Perform statistical analyses and generate graphical representations of study results, and incorporate the data into written reports, scientific publications, and oral presentations; 3) Oversee and schedule laboratory activities performed by 1-2 biological technicians, students, and/or volunteers; and 4) Use DNA markers and automated DNA analyzers/sequencers to collect genotypic, gene frequency, bioinformatic classification of metabarcoding data, and DNA sequence data. NOTE: Your resume must contain sufficient information in these areas to be found qualified.

Experience refers to paid and unpaid experience, including volunteer work done through National Service programs (e.g., Peace Corps, AmeriCorps) and other organizations (e.g., professional; philanthropic; religious; spiritual; community, student, social). Volunteer work helps build critical competencies, knowledge, and skills and can provide valuable training and experience that translates directly to paid employment. You

— / —

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

Other

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Chicago Botanic Garden Plant Conservation Internships

Research Experiences for Undergraduates (REU) Program in Plant Biology & Conservation: From Genes to Ecosystems

Location: Chicago Botanic Garden, Glencoe, Illinois, USA
Program Dates: June 16 - August 22, 2025
Contact: info@pbcinternships.org

The Chicago Botanic Garden is accepting applications from enthusiastic undergraduate students for its 2025 Research Experiences for Undergraduates (REU) summer internship program.

Participants will conduct and present original research in plant biology and conservation and engage in professional development activities to advance their career and research skills. Benefits include a \$7000 stipend, housing, and travel support to and from the Chicago area. Please note: The 2025 internships are contingent upon renewed program funding.

Applications due February 14, 2025. Learn more about the program and application process at: pbcinternships.org/summer-reu-genes-ecosystems

Sarah Jones, Ph.D. Program Manager of Student Research Experiences Chicago Botanic Garden 1000 Lake Cook Road | Glencoe, IL, 60022 Tel (847) 835-6875

chicagobotanic.org < <https://www.chicagobotanic.org/> > | pbcinternships.org We cultivate the power of plants to sustain and enrich life.

sjones@chicagobotanic.org

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Evolution Education Outreach Grants

The Society for the Study of Evolution (SSE) Education and Outreach Committee is now accepting proposals for the Small Grants Program for Local and Regional Outreach Promoting the Understanding of Evolutionary Biology.

These grants provide support for local and regional educational outreach activities to take place during 2025.

Examples of past outreach activities have included public lectures, exhibits, student competitions, and professional development events for teachers.

Grants up to \$1000 USD will be awarded. Applicants must be members of SSE. The deadline to apply is March 1, 2025.

Learn more about these grants and how to apply on the SSE website: <https://rb.gy/swgrn> –

*Kati Moore*she/her *Communications Manager* *Society for the Study of Evolution* communications@evolutionsociety.org www.evolutionsociety.org <communications@evolutionsociety.org>

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Evolution International Travel Stipends

The Society for the Study of Evolution International Committee offers the International Travel Stipends to provide funding to attend the Evolution 2025 meeting (<https://www.evolutionmeetings.org/>) or the ESEB 2025 Congress (<https://eseb2025.com/>) in person. Recipients receive meeting registration and funds for transportation, meals, and lodging. All career stages are eligible, and preference will be given to students and early-career researchers.

Applications are now open. Apply by January 31: <https://www.evolutionsociety.org/content/society-awards-and-prizes/travel-awards.html#internatltravelsupp> *Kati Moore*she/her *Communications Manager* *Society for the Study of Evolution* communications@evolutionsociety.org www.evolutionsociety.org SSE Communications <communications@evolutionsociety.org>

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SmallNatHistFieldwork Grants

The Percy Sladen Memorial Fund is a charity associated with the Linnean Society of London that offers small travel & subsistence grants (up to 2000) for fieldwork in Natural History (anthropology, archaeology, botany, geology, palaeontology and zoology). There are two application deadlines per year: 30th January and 30th September. Prospective applicants should email the fund's secretary, Elizabeth Rollinson, erollinson13@gmail.com for an application form in good time before a deadline. With regret, the fund does not support conference attendance, visits to institutions, PhD students who have not submitted their dissertations, training or student studies that are part of student projects (undergrad, masters or PhD). Further information can be found here: [Percy Sladen Memorial Fund Grants | The Linnean Society](#) .

Prof. J.M. Pemberton Institute of Ecology and Evolution School of Biological Sciences University of Edinburgh

The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336. Is e buidheann carthannais a th' ann an Oilthigh DhÀ¹n Àideann, clàraichte an Alba, àireamh clàraidh SC005336.

Josephine Pemberton <J.Pemberton@ed.ac.uk>

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SORTEE Commendation Awards

SORTEE Commendation Awards The Society for Open, Reliable, and Transparent Ecology and Evolutionary biology (SORTEE) Commendation Awards aim to highlight projects that align with the aims and values of the society.

A project is defined as any work that is an initiative benefiting the eco-evo community by fostering open science values or practices (e.g., journal clubs, workshops, seminar series, websites, repositories, tools, educational materials, public talks, podcasts, etc.).

The SORTEE Commendation Awards recognise that projects are often team efforts. As such, the contributions of all project members, rather than individuals, will be highlighted. SORTEE warmly encourages diverse nominations in terms of team membership.

Project nominations can be submitted year-round until mid-August (two months before the SORTEE conference, which is held mid-October).

For further information, see the SORTEE awards website: <https://www.sortee.org/awards/> Hannah Dugdale

Chair of Evolutionary Medicine Rosalind Franklin Fellow Groningen Institute for Evolutionary Life Sciences (GELIFES < <https://www.rug.nl/research/gelifes/?lang=en> >), University of Groningen, Nijenborgh 7, 9747 AG Groningen, NL

Office: +31 (0)50 363 9683 | Room: 5172.05.56 | Working days: Mon-Fri | hannahdugdale.wordpress.com | X: @hannahdugdale < <https://twitter.com/hannahdugdale> > | Bluesky: @hannahdugdale.bsky.social < <https://bsky.app/profile/hannahdugdale.bsky.social> >

I do not expect you to respond to my email outside of your working hours

Hannah Dugdale <h.l.dugdale@rug.nl>

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UConnecticut GenomicNovelty

I am thrilled to share information about the UConn RaMP (Research and Mentoring for Postbaccalaureates) Program; a year-long, paid NSF-funded postbaccalaureate research training program based at the University of Connecticut. The purpose of the program is to offer a mentored research experience and professional development opportunities to individuals historically underrepresented in STEM (including underrepresented ethnic groups, people with disabilities, veterans, and first-generation college students) or those who did not have sufficient access to research during their undergraduate careers (college graduates of lower-resourced institutions). RaMP provides an intensive research experience, with salaries comparable to an entry level job.

Scholars will:

* Conduct original biological research on the theme of ge-

conomic novelty under the mentorship a faculty members and graduate student mentor * Participate in professional development activities, attend conferences and networking events * Expand high demand technical skills in preparation for a diverse array of STEM careers and/or graduate school

Program Overview: Where: UConn, Storrs Campus
When: Program runs from August 2025-July 2026

No research experience required!

Our website and application information can be found here: <https://genome-postbac.biology.clas.uconn.edu/>. Applicants are encouraged to visit the website to learn more about the program and review potential research projects/mentors. The application deadline for the 2025

cohort is February 21st. Please feel free to share this opportunity with others in your network.

If you have any further questions, please feel free to contact me (teisha.king@uconn.edu).

Best, Teisha King

Teisha King, PhD RaMP Educational Program Coordinator University of Connecticut Dept of Ecology and Evolutionary Biology Applications for the 2024 cohort are open!!! Apply < <https://etap.nsf.gov/award/617/-opportunity/3466> > today RaMP Website: <https://genome-postbac.biology.clas.uconn.edu/> “King, Teisha” <teisha.king@uconn.edu>

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Bilbao Spain MultiomicsPreclinicalDisease

I would like to post a job opening for a postdoc position in my lab, which, while not strictly focused on

evolutionary genomics, heavily benefits from an evolutionary perspective. Given my background in this area, I believe this opportunity could resonate with evolutionary geneticists interested in applying their expertise to complex disease research.

Postdoctoral Position in Genomics of Preclinical Disease

The Integrative Genomics Lab, led by Urko M. Marigorta at CIC bioGUNE (Bilbao, Basque Country, Spain),

invites applications for a postdoctoral position in complex disease genomics. Our lab integrates statistical genomics and multi-omic profiling, with a focus on identifying molecular events that precede clinical symptoms. We are guided by the belief that understanding these early molecular drivers can lead to advances in precision medicine.

About the Position and the Project

You will spearhead a cutting-edge project aimed at integrating multi-omic datasets from preclinical cohorts to uncover molecular signatures predictive of disease risk and progression. Your responsibilities will involve analyzing in-house multi-omic profiles from individuals at risk of inflammatory diseases and integrating them with large-scale data (e.g., UK Biobank), developing computational pipelines to refine multi-omic risk signatures, identifying molecular pathways that can be targeted for prevention, and exploring lifestyle interventions or molecular biomarkers that modulate disease risk.

This position offers an exciting opportunity to engage with real-world, high-dimensional datasets at the intersection of genomics, immunology, and clinical medicine. The project can be tailored to your interests within the scope of the overarching project, including exploration of other disease domains. The position is available for up to three years.

Requirements

We are seeking a motivated candidate with:

- A PhD in genetics, bioinformatics, statistics, or related fields, ideally with experience in complex trait genomics, multi-omic integration, or computational biology.
- Strong programming and bioinformatics skills (e.g., R, Python, or similar).
- A solid understanding of statistical methods applied to large datasets and the ability to adapt to emerging tools and techniques.
- An inquisitive mindset, able to work in a collaborative environment.
- An evolutionary perspective into disease and the interplay between genetic risk and physiological status is particularly appreciated.
- Experience in immunology is desirable but not essential.

The Lab

We specialize in uncovering the molecular basis of disease progression and heterogeneity through statistical genomics and multi-omic profiling. Located at CIC bioGUNE, a leading research institute in the Basque

Country, our lab collaborates with clinicians, immunologists, and computational biologists to tackle critical challenges in complex diseases.

For more information, visit Integrative Genomics Lab.

Application procedure (Deadline December 31st, 2024):

Motivated candidates should submit an application package including:

1. A detailed CV.
2. A cover letter (2 pages) describing your research experience, statistical and computational skills, and goals for postdoc training.
3. Contact details for two references.

Applications should be submitted via the form available at <https://www.cicbiogune.es/job-offers-form>, and indicating 44621 as reference

All information and attachments included in this email are confidential and intended for the original recipient only. You must not share any part of this message with any third party. If you have received this message by mistake, please reply to let us know immediately, so we can make sure such a mistake does not happen again and delete this message from your system. We have put our efforts into ensuring that this message is free of errors and viruses but, despite our efforts, you should always scan all emails for any threats with proper software, as the sender does not accept liability for any damage inflicted by viewing the content of this email. We also would like to inform that all personal data included in this email or in the attached documentation, could be processed by ASOCIACION CENTRO DE INVESTIGACION COOPERATIVA EN BIOCIENCIAS with the aim of managing the legal relationship between the parties. If you would like to access, modify or oppose to the treatment of your data, you can contact us in writing. Please consider the environment before printing this email

Urko Martínez

Martínez

Marigorta

<umartinez@cicbiogune.es>

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Bolzano Italy AncientDNA DietaryMicrobiomeEvol

Eurac Research is looking for a Postdoctoral researcher in ancient DNA metagenomics

Please see the website for the relevant contacts, eligibility criteria, and application procedures:

https://eurac.onboard.org/-mummies_postdoc_25112024_evoldir

We are looking for a Postdoctoral researcher with strong computational and statistical skills and with consolidated experience in metagenomics analysis. The candidate should have expertise in the analysis of microbial and optionally dietary or human genomic data from ancient and modern samples. The project will apply in-depth genomic analyses of paleofeces from the Hallstatt salt mine to reconstruct the individual dietary profile and gut microbiome of the prehistoric miners. It has been funded by the Autonomous Province of Bolzano/ Bozen South Tyrol and the Austrian Science Fund in the framework of the Programme Joint Projects “Progetti di cooperazione internazionale” - Alto Adige-Austria (FWF).

We offer a three-year full-time Postdoctoral position at the Eurac Research - Institute for Mummy Studies in Bolzano, Italy.

The position is available from April 2025.

Our Institute is internationally renowned for its research on the Iceman and other mummified and skeletal human remains of different periods from all over the world. The position will be in the framework of a three-year interdisciplinary Joint Research project that aims to understand the dietary habits of our ancestors. The research focuses on human paleofeces from the prehistoric Hallstatt salt mines. The high salt concentration in the mine workings and the constant temperature of 8 °C have created excellent preservation conditions for organic remains incl. millennia-old excrements. Through microscopic and molecular analyses of these paleofeces, our team will be able not only to reconstruct the diet of the miners that lived about 3000 years ago but also to provide remarkably precise insights into the bacterial colonization of their gut. The goal of this project is to gain a better understanding of the role that complex processed foods, in particular fermentation, played in the history of human nutrition and to observe changes

in the gut microbiome that are linked to diet.

Tasks - Plan and perform experiments, analyze data and synthesize results within an interdisciplinary project bringing together archaeology, archaeobotany, parasitology and zooarchaeology. - Perform the bioinformatic analyses of the metagenomic data produced from the paleofeces. - Phylogenetic and statistical analyses of the microbial, dietary and human genomic data (for details please refer to <https://shorturl.at/pv1Nx>) - Collaborate with the research team to develop new methodologies and innovative approaches. - Participate in scientific conferences and publication of results in peer-reviewed journals.

Requirements: - PhD degree in microbiology, computational biology, bioinformatics or related fields. - Strong computational and statistical skills with expertise in metagenomic analyses. - Proficiency in programming languages such as R and Python. - Experience with workflow management systems (e.g., Snakemake, Nextflow, or similar) is highly advantageous. - Proficiency in spoken and written English. - Excellent problem-solving skills and the ability to work both independently and collaboratively.

We offer: We offer a three-year full-time Postdoctoral position, starting in April 2025. We welcome candidates who are eager to explore novel research questions and develop creative solutions within the scope of our projects. The candidate will have the opportunity to work in a stimulating multidisciplinary team composed of researchers from different fields and countries and, moreover, to collaborate with scientists from other national (CIBIO University of Trento) and international (Austrian Archaeological Institute at Å AW, Natural History Museum Vienna, Institute for Systems Biology Seattle, Geosphere Austria, MedUni Wien) institutions.

How to apply: Interested candidates should submit their application (CV, cover letter and further relevant documents) by 06.01.2025

The project “Mining and Dining - Prehistoric Salt Miners’ Foodways” (CUP: D53C23004210003) has been funded by the Autonomous Province of Bolzano/ Bozen South Tyrol and the Austrian Science Fund [10.55776/PIN4721024] in the framework of the Programme Joint Projects “Progetti di cooperazione internazionale” - Alto Adige-Austria (FWF).

Please also see the job applications: <https://www.eurac.edu/en/job-opportunities> Maixner Frank <Frank.Maixner@eurac.edu>

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Bolzano Italy InsectSymbiontGenomics

We are looking for a postdoc to work on the project “Dynamics of symbiont evolution across the psyllid tree of life”. The position is funded for one year and renewable for two additional years.

The project is funded by a joint project of the Province of Bolzano and the German Research Foundation DFG and is in close collaboration with Michael Gerth (Martin Luther University of Halle-Wittenberg), Martin Kaltenpoth (Max Planck Institute for Chemical Ecology) and Liliya Serbina (Museum für Naturkunde Berlin). The position will be based at the Free University of Bozen-Bolzano in Northern Italy. looking for a postdoc to work on the project “Dynamics of symbiont evolution across the psyllid tree of life”. The position is funded for one year and renewable for two additional years.

The Free University of Bozen-Bolzano is located in one of the most fascinating European regions, at the crossroads between the German-speaking and Italian cultures. Its trilingualism in teaching and research, its high level of internationalisation as well as an ideal study environment guaranteed by its excellent facilities are some of the reasons why unibz regularly reaches top positions in national and international rankings. The Schuler lab is member of the Competence Centre for Plant Health, a joint institution which consists of several research groups in the field of Biology, Agricultural Sciences and Engineering. <https://www.unibz.it/en/home/research/competence-centre-plant-health>. We are a young and dynamic research group studying various aspects of insect-microbe interactions in a collaborative atmosphere <http://hschuler.people.unibz.it> We are looking for an enthusiastic candidate with a strong background in insect ecology and evolution. Competences with molecular genetic methods, next generation sequencing and bioinformatics as well as experience with ecological studies, collection and handling of insects are desired.

General requirements for the position: PhD degree in Agricultural Sciences, Agricultural Biotechnology, Ecology and Evolution with a multidisciplinary profile. The candidate should have excellent communication skills and should be fluent in English.

The project is expected to start in May 2025, but the

starting date is negotiable. Application deadline is the 08.01.2025.

For informal inquiries, and for questions about the hiring process, please contact Hannes Schuler hannes.schuler@unibz.it

All documents for the application procedure can be found here: <https://www.unibz.it/en/home/position-calls/positions-for-academic-staff/7503-allgemeine-und-angewandte-entomologie-prof-schuler-hannes-pos-2?group=> Prof. Hannes Schuler Competence Centre for Plant Health Faculty of Agricultural, Environmental and Food Sciences Free University of Bozen-Bolzano Universitätsplatz 5 I-39100 Bozen-Bolzano Tel: +39 0471 017648 <http://hschuler.people.unibz.it> Schuler Hannes <Hannes.Schuler@unibz.it>

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CornellU EvolutionMarineNovelty

The Babonis Lab in the Department of Ecology and Evolutionary Biology at Cornell University seeks to hire a highly motivated Research Associate to work on the evolution of novelty in marine invertebrates.

This position requires an experienced scientist to use a broad range of cellular, molecular, and functional genomic techniques in a wide array of marine invertebrate species to interrogate the evolution and development of novel traits. The successful candidate will be expected to develop protocols for using multiple 'omic techniques (single cell transcriptomics, proteomics, etc) and optimize new techniques for manipulating gene function in non-model organisms at different life stages. This position will also require the development and maintenance of transgenic animals that will be used to examine the evolution of cell identity within and across species.

To qualify, applicants must have a Ph.D. and at least three years of demonstrated expertise in molecular biology, transgenesis, genome editing, and protein biochemistry as well as aquatic invertebrate animal husbandry. The ideal candidate will also have significant experience with: genome-wide DNA and RNA sequencing and analysis techniques, marine animal husbandry, and embryological manipulations.

Applications are due 15 Dec 2024. For more details and to apply, please visit:

<https://academicjobsonline.org/ajo/jobs/29406> Leslie S. Babonis, PhD (she/her) Assistant Professor Curator of Marine Invertebrates Ecology & Evolutionary Biology Cornell University E137 Corson Hall Ithaca, NY 14853

babonislabs.com lsb257@cornell.edu

Leslie Babonis <lsb257@cornell.edu>

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ImperialC London BeeHealthMicrobiomes

Postdoc in Pollinator Microbial Ecology (3 year position, job advert closes 20th December) The Graystock Lab at the Silwood Park Campus of Imperial College London is seeking a microbial ecologist interested exploring the microbiomes of pollinators with the ambition to manipulate and optimise microbial communities that may protect bees from exposure to harmful stressors. The project aims to 1) Improve our understanding of microbe-host-environment functional interactions 2) explore host-microbiome evolution in natural and lab-based systems 3) Develop microbiomes that can improve bee health in a given environment 4) significantly advance our understanding of the bee-microbiome holobiont to facilitate pollinator health optimisation. This project represents a multi-disciplinary approach as part of the Leverhulme Centre for the holobiont, collaborating specifically with Professor Quinn McFrederick (University of California Riverside) and Professor Marc-Emmanuel Dumas (Imperial College London).

The project stems from shared interests between the Graystock, McFrederick and Dumas labs to explore microbial dynamics, functional/metabolomic evolution, and developing applied solutions to improve host/pollinator health. Using a combination of field collections, lab and cage assays, microbial culturing and transplants, sequencing, and metabolomics, you will drive the development of beneficial microbiomes in pollinator systems. In addition to being part of the centre for the holobiont, you will also benefit from being located primarily at the Silwood park campus which is currently experiencing a burst of expansion in microbial ecology, boasting several staff exploring microbial interactions, directed evolution and impacts of microbes on host health.

For more details: <https://www.imperial.ac.uk/jobs/>

[search-jobs/description/index.php?jobId=21816](https://academicjobsonline.org/ajo/jobs/29406) “Graystock, Peter” <p.graystock@imperial.ac.uk>

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ITV Brazil Conservation Genomics

We have openings for fellowships (postdoctoral and technical-level TT-V) within the consortium Genomics of the Brazilian Biodiversity. The consortium is a partnership between the Vale Institute of Technology (ITV) and the Chico Mendes Institute for Biodiversity Conservation (ICMBio) and is sequencing chromosome-level reference genomes and population-level resequenced genomes for species of conservation interest. The project aims to contribute to public conservation policies for Brazilian species by producing high-quality genomic data (Vilaiçá et al. 2024 Cell Genomics) and is funded by Vale until 2027 in the order of USD\$25 million. ITV is a privately funded research institute in Belém, Pará, Brazil and has a state-of-the-art laboratory infrastructure able to generate all data in-house and high-performance computing resources. I am looking for fellows to join our team and contribute to projects focused on conservation genomics.

The 12-month fellowships can be fully remote, with a monthly stipend of BRL\$9320 Brazilian reais (~USD\$1500). Applicants should have a strong background in genomics, with experience in chromosome-level reference genomes assembly (1 position) and/or population genomics (2 positions).

Details of each position with minimum requirements can be found here: <https://portalfadesp.org.br/wp-content/uploads/2024/12/Edital-de-Bolsas-ITV-DS.pdf> (pages 62,63 and 69). While postdoctoral fellowships require a completed PhD, TT-V fellowships require at least 5 years of experience after an undergraduate degree or a finished PhD. Applications have to be submitted through the FADESP website (https://portalfadesp.org.br/?page_id=47784) before January 10th, 2025. Please note that the cover letter needs to be submitted in Portuguese. Interviews are expected to happen during the first week of February.

For further information about these positions, please contact: Dr. Sibelle Vilaiçá [sibelle.vilaca\[at\]itv.org](mailto:sibelle.vilaca[at]itv.org).

Thanks,

Sibelle

Sibelle Torres Vilaca, PhD Assistant Researcher
 Instituto Tecnológico Vale | Vale Institute of Technology
 Desenvolvimento Sustentável | Sustainable Development
 Genômica Ambiental | Environmental Genomics
 Rua Boaventura da Silva, 955 - Nazaré 66055-090 - Belém, PA, Brasil

E-mail: sibelle.vilaca@itv.org CV Lattes < <https://lattes.cnpq.br/1331509121011444> > | Google Scholar < <https://scholar.google.com/citations?user=QZxwYiwAAAAJ&hl> > ORCID < <https://orcid.org/0000-0002-6887-4703> > Genômica da Biodiversidade Brasileira (GBB) < <https://www.itv.org/projeto-genomica-da-biodiversidade-brasileira/> >

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Sibelle Torres Vilaca <Sibelle.Vilaca@itv.org>

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JagiellonianU Krakow BarkBeetleGenomics

We are looking for a postdoc to work on the project ‘Genomics of eco-evolutionary dynamics in the spruce bark beetle’. The main objective of the project is to address several hypotheses about the nature of rapid adaptation by analyzing changes in allele frequencies and inversion haplotypes over time in different populations of the spruce bark beetle. Our international team is based at the Institute of Environmental Sciences at the Jagiellonian University in Krakow (Poland).

We are looking for a person with a strong interest in evolution, molecular ecology, population genomics as

well as experience in bioinformatics; proven experience in working with NGS data and their multi-step analysis (experience in pool-seq analysis preferred); strong English language, communication and organizational skills. The position is for 3 years (after successful probation) and the salary is 140k PLN/year before tax.

If interested, please send a cover letter explaining your background, skills, and interest in the project, CV, and contact information of two academics willing to provide references to Dr. Krystyna Nadachowska-Brzyska (krystyna.nadachowska@uj.edu.pl).

Review of applications is ongoing; please apply by January 15, 2025 to ensure full consideration. The start date of the position is 03.06.2025 (but may be negotiable!). A short summary of the project is available below or at <https://genomicsofoutbreaks.com/>. Krystyna Nadachowska-Brzyska

More details on the project

One of the central goals of evolutionary biology is to understand how natural selection works and how it operates at the genomic level. In particular, rapid adaptation, where strong selection leads to drastic phenotypic changes within a few generations, has been at the center of recent scientific debate. In part, this is because while identifying the molecular basis of rapid and often polygenic evolutionary responses at the phenotypic level has proven difficult, several recent studies have suggested that genome-wide rapid adaptation can be detected and quantified using temporal genomic data and appropriate statistical analyses. In addition, an increasing number of recent studies have suggested that polymorphic inversions may be key drivers of rapid adaptation. This changing perspective, but also methodological advances, indicate that there is an urgent need to revisit long-standing questions in the field of evolutionary genetics and eco-evolutionary dynamics, such as: Can populations continuously adapt to changing environments (via adaptive tracking)? What is the genomic architecture of such adaptation? Or, does fluctuating selection acting on multiple loci across the genome play a critical role in rapid adaptation?

The main goal of this project is to address several hypotheses about the nature of rapid adaptation by characterizing the temporal genome-wide dynamics of allele frequencies in multiple populations of the spruce bark beetle. In particular, we will test whether the bark beetle is under temporally fluctuating selection, whether it is more frequent than directional selection, and whether it affects large parts of the species genome. We aim to identify sets of SNPs that show significant changes in allele frequencies over short periods of time, and to identify genes and pathways associated with directional and

fluctuating selection. In addition, we will take advantage of the extremely complex genomic landscape of polymorphic inversions discovered in the spruce bark beetle and test whether polymorphic inversions are important drivers of rapid adaptation within the species. We will also identify potential abiotic factors that generate fluctuations in selection and force specific genomic regions to continuously respond to environmental changes (outside and inside inversions). Finally, we will quantify the effect of linked selection on linked neutral sites on ecological timescales, the effect of which is particularly understudied on short temporal scales.

To address the main questions of the project, we will use extensive temporal data sets from several spruce bark beetle populations collected over the course of several generations, we will use a combination of short-read pooled sequencing and long-read nanopore sequencing approaches, and we will apply state-of-the-art population genetics and statistical analyses. The results of the project will shed light on fundamental evolutionary questions regarding the role and prevalence of adaptive tracking of rapidly changing environments, the role of polymorphic inversions in rapid adaptation, and the genomic scale of fluctuating selection in natural populations. We believe that this proposal is a unique example of research that aims to shed light on multilocus fluctuating selection in the context of an extremely inversion-rich genome, and as such will have a high impact on the advancement of the field.

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Leiden Butterfly Evolution

2 year postdoctoral fellow on improving tools for tropical butterfly identification and analysis

Naturalis Biodiversity Center (Leiden, the Netherlands) is looking for a Postdoctoral fellow to work on South East Asian butterflies by turning collection knowledge into practical tools and outputs through machine-learning identification, data analysis, and ecological modelling. The successful candidate will become part of the NL Biodiversity and Society research group (led by Prof. Dr. Koos Biesmeijer). Direct supervision will be provided by Dr Thomas Wood and Dr Leon Marshall.

Naturalis possesses one of the largest collections in the world of butterfly specimens from South East Asia, and this collection has been the focus of concentrated digitisation efforts during the past eight years, including specimen photography. This new project seeks to harness this dataset using machine learning in order to release this information and make it available for scientists and conservation biologists around the world.

A contract (32-36 hours per week) for a period of one year, to be possibly extended with one year after successful evaluation. The desired start date is 1 February 2025, but flexibility is possible.

We are looking for a candidate with

- * A Phd in a relevant discipline (e.g. artificial intelligence, biology, environmental science) and a strong interest in ecology
- * meaningful experience working with machine-learning image recognition models, including both academic study and practical application using real-world datasets
- * a strong analytical background and experience with software to analyse ecological data (e.g. R, Python)
- * the ability to coordinate and mobilise people (including volunteers) to work towards project objectives

More information can be found here: <https://www.naturalis.nl/en/about-us/job-opportunities/postdoctoral-fellow-sea> including contact email addresses for direct questions.

Please address your application to Dr. Thomas Wood and submit it through the application form included in the above link no later than 6 January 2024. Interviews are expected to be held either in person or online on 16-17 January 2024. Applicants are invited to submit their application in one pdf, including: Motivation letter (max 2 pages), explaining your motivation for the position and your competences; CV highlighting your education, skills, and relevant work experience, along with the names and contact details of two professional references to support your application.

Naturalis endorses the Cultural Diversity Code. In the case of equal suitability, preference is given to the candidate who reinforces diversity within the team.

Thomas Wood <thomas.wood@naturalis.nl>

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LundU Paleogenomics

LundU.EvolutionaryBiology

Postdoc fellowship (2 years) in bioinformatics of paleogenomics and AI at Lund University - Deadline Feb 1st 2025

We are seeking a highly motivated student for a 2 years postdoc position in Computational Biology to develop machine learning tools to study the paleogenomics of the Silk Roads. The position is sponsored by the Carl Trygger Foundation to the laboratory of Dr. Eran Elhaik at Lund University in the Department of Ecology. The Department of Biology is part of the Faculty of Science has approximately 1500 students, 330 PhD students and 700 employees.

Candidates are expected to have strong computational and analytical skills and an interest in biology and human history. Candidates should have a background in mathematics, statistics, physics, computer science, and/or a related field. Candidates are also expected to have fundamental knowledge and experience with Machine Learning methods.

The candidate will work jointly with Dr. Eran Elhaik (<https://www.ernalhaiklab.org/>) of the Department of Biology, Lund University, and collaborators from other departments and universities.

- Please Apply here: <http://www.ernalhaiklab.org/PostdocAd.html> For questions, contact: Dr. Eran Elhaik `eran [dot] elhaik (@) biol [dot] lu [dot] se`

<https://www.ernalhaiklab.org/> Lund University Department of Biology S?lvegatan 35 SE 223 62 Lund

`eran.elhaik@biol.lu.se`

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MichiganStateU DevelopmentalPhenotypicPlasticity

The lab of Fredric Janzen (<http://www.kbs.msu.edu/research/labs/janzen/>) is recruiting a Postdoctoral Re-

search Associate to join us at the W. K. Kellogg Biological Station (KBS), Michigan State University (<http://www.kbs.msu.edu>). The Janzen Lab leverages long-term population monitoring and expertise in theoretical modeling, quantitative genetics, and experimentation to understand the evolution ecology of a classic polyphenism - temperature-dependent sex determination (TSD) - that occurs in many reptiles. In so doing, we also gain insight into phenotypic plasticity relevant to responses of imperiled taxa to anthropogenic habitat/climate change. We seek an experimental molecular biologist to work on collaborative projects exploring TSD as a model for developmental phenotypic plasticity.

The successful candidate will work collaboratively with the PI and lab team to develop a research program that integrates 'omics-level analyses with existing expertise to evaluate the evolutionary dynamics of TSD within and across reptile species with differing patterns of sex-ratio response to developmental temperatures. Available lab resources include long-term data and tissues from a wild pedigreed population of turtles with TSD, as well as comparable resources from geographically distant populations. The research could thus include comparisons among years within populations (including across generations), across populations within species, as well as across taxa, to clarify proximate and ultimate mechanisms underlying observed plasticity in thermal reaction norms in reptiles with TSD.

The post-doctoral mentoring philosophy includes providing (1) opportunities for professional development and mentoring of student scholars, (2) time for independent project development, and (3) resources for outreach and activities that promote diversity, equity, and inclusion in STEM. The successful applicant will be based at KBS, which hosts a vibrant group of resident faculty, post-docs, and graduate students along with multiple modern shared-use facilities, including a Molecular Ecology and Genomics (MEG) Lab, Pond Lab (experimental ponds, mesocosms, etc.), and Boathouse Research Facility (cutting-edge programmable walk-in environmental chambers and incubators). Opportunities for collaboration with MSU campus and other institutions are also available.

A PhD is required by the start of the appointment. Expertise with fieldwork, reptiles, or TSD is not required. More important will be (1) demonstrated scholarly excellence, (2) relevant bench skills - wet lab/molecular biology experience, preparation of high-throughput sequencing libraries, bioinformatics capability related to 'omics data - and (3) a strong desire to advance our conceptual understanding of phenotypic plasticity, including polyphenisms. Salary will be commensurate with experience.

Instructions for applying can be found here: <https://careers.msu.edu/jobs/research-associate-fixed-term-hickory-corners-michigan-united-states-6866a4ac-7481-4d38-941f-afa10f3ce354> . Preferred start date by March 2025, although the specific start date is negotiable.

For further information, feel free to reach out to Dr. Janzen (janzenf1@msu.edu).

Fredric Janzen (he/him) Professor, W. K. Kellogg Biological Station Departments of Fisheries and Wildlife & Integrative Biology Ecology, Evolution, and Behavior Program Michigan State University 3700 East Gull Lake Drive Hickory Corners, MI 49060

“Janzen, Fredric” <janzenf1@msu.edu>

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Montpellier BirdColorEvolution

Montpellier.GenAI to study bird color evolution

Postdoctoral Research Position, Montpellier, France
Generative AI for Studying the Influence of Habitats on the Diversification of Bird Color Patterns

Institution: CNRS, University of Montpellier, FRANCE
Location: Centre for Functional and Evolutionary Ecology - CEFE & Montpellier Laboratory for Computer Science, Robotics, and Microelectronics - LIRMM
Duration: 18 Months
Project Overview: Understanding the origins of diversity in color patterns within the animal kingdom is a pivotal research area in evolutionary biology. The visual structure of habitats is known to influence color patterns through selection for camouflage.

Recent theoretical developments also suggest that the visual habitat could influence the design of sexual signals through a mechanism named sensory drive. The influence of sensory drive is empirically supported for colors, but not for patterns, and has never been tested on a large scale. This project aims to use generative artificial intelligence to develop a global-scale test of the influence of visual habitats on the evolution of bird plumage patterns and colors.

Objectives: 1. Contribute to the development of a global database of natural habitats of birds 2. Develop a generative AI model that learns to predict bird plumage from images of their habitats 3. Test the hypothesis that color patterns generated from images of a new habitat more closely resemble the color patterns of real birds living

in that habitat than the color patterns of birds living in other habitats 4. Develop explainable AI approaches to identify the features involved

This project is carried out in collaboration with Dr. Chris Cooney and Dr. Gavin Thomas from the University of Sheffield. The natural habitat image database is currently being acquired from images in the citizen science database iNaturalist and other sources.

The bird database has already been acquired by the Sheffield team.

Qualifications: - Education: Ph.D. in Computer Science, Computational Biology, or Evolutionary Biology, completed by the time of appointment. - Experience: Up to 2 years of postdoctoral experience post-Ph.D (researchers with 2years of experience at the time of recruitment are not eligible to apply) - Technical Skills: Proficiency in deep learning frameworks (e.g., PyTorch), with articles already published in this field. - Additional Skills: Experience with generative AI.

Knowledge of evolutionary biology and animal coloration is highly desirable.

Ability to work collaboratively in an interdisciplinary environment.

Start of the project: May-June 2025.

About the Team: The project is co-led by Julien Renoult (CNRS, UMR CEFE), Maximilien Servajean (University of Paul Valéry, Montpellier, UMR LIRMM INS2I) and Jérôme Pasquet (University of Paul Valéry, Montpellier, UMR TETIS). The team combines expertise in evolutionary biology, ornithology, and advanced machine learning techniques including generative AI.

Salary: euro 3,451 gross per month/ euro 2,773 net per month before taxation.

Application Process: Interested candidates should submit the following documents: 1. Cover Letter: Detailing research experience, interest in the project, and future research goals. 2. Curriculum Vitae (CV): Including a list of publications and relevant projects. 3. References: Contact information for at least two academic references.

Please send your application to julien.renoult@cefe.cnrs.fr by January 15th.

Julien P. Renoult CNRS Research Scientist PhD Evolutionary Biology & Ecology /Doct. Veterinary Medicine Center for Evolutionary and Functional Ecology 1919 route de Mende 34090 Montpellier - FRANCE

Julien RENOULT <julien.renoult@cefe.cnrs.fr>

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ing@mcmaster.ca)

Montpellier MarineEcoEvolutionaryDynamics

Post-doctoral research associate Marine Ecosystem Eco-evolutionary Modelling IFREMER, IRD, MARBEC laboratory, Montpellier, France

DESCRIPTION Applications are invited for a postdoctoral research associate position in marine ecosystem eco-evolutionary modelling.

The successful applicant will join MARBEC (<https://umr-marbec.fr/en/>), one the largest French laboratory in marine biodiversity, gathering research teams from IFREMER, IRD, CNRS, University of Montpellier, and INRAE research organizations. The position will be funded by the MEDIATION project (2022-2027) of the French Priority Research Program Oceans and Climate (Mediation project, <https://www.ocean-climat.fr/Les-actions-et-projets/Les-projets-de-recherche/MEDIATION>) and hosted by Ifremer, a world-renowned institute in marine science and technology at the forefront of sustainable development and open science.

The MEDIATION project aims to revolutionize marine ecosystem modeling to address global change. The project develops innovative methodologies to predict how global change impacts marine ecosystems and assess conservation measures' effectiveness. One of its main tasks is to integrate low (plankton) and high (fish) trophic levels in coupled models to represent the entire ecosystem dynamics more realistically.

The postdoctoral fellows will specifically work on the development and application of the two-way coupling of low (biogeochemical) and high trophic level models to investigate the eco-evolutionary feedback loop between planktonic and fish communities and its impact on ecosystem dynamics.

The research work will use the biogeochemical model Eco3M (Baklouti et al., 2006) developed by MIO (<https://www.mio.osupytheas.fr/en/>, Aix-Marseille University) and the multispecies high-trophic level model OSMOSE (<https://osmose-model.org>) developed by MARBEC, with an application to the Mediterranean Sea.

Key responsibilities of the postdoctoral researcher will

include to - Conduct a literature review to identify and prioritize processes linking low (phyto- and zooplankton) and high (fish) trophic levels; - Define and implement mathematical representations of these processes in the Eco3M and OSMOSE models; - Perform technical coupling of the models, addressing challenges such as depth representation in Osmose (currently in 2D), spatial/temporal resolution mismatches and biomass and energy flux conversion between trophic levels; - Apply and calibrate the coupled model for the Mediterranean case study of the MEDIATION project; - Compare eco-evolutionary dynamics of plankton and fish communities between unidirectional and bidirectional coupling scenarios.

QUALIFICATIONS Applicants with various backgrounds are encouraged to apply. They should have less than three years of experience after their PhD and must not have been previously employed as a PhD student or a postdoctoral researcher in an Ifremer research unit or in a joint research unit involving Ifremer.

Specifically, we are looking for young researchers with the following qualifications: - PhD in marine or evolutionary ecology, fisheries science, biogeochemistry or any related field - Demonstrated proficiency and experience in at least one of the following: ecosystem models, hydrodynamic-biogeochemical models, fish and fisheries models, or eco-evolutionary models - Strong programming and numerical skills - Excellent verbal and written communication skills

PRACTICAL INFORMATION Employer: IFREMER (<https://www.ifremer.fr/>) Work place: Université de Montpellier, UMR MARBEC, Place Eugène Bataillon, CC093, 34095 Montpellier, France Start date: as soon as possible - Duration: 18 months Salary and benefits: Gross salary is approximately 34K euro /year, depending on professional experience. Employment contracts include 10 weeks of vacation per year, healthcare benefits (both state and private supplementary coverage), unemployment benefits, and pension benefits (both state and supplementary fund).

HOW TO APPLY Applicants should send (i) a curriculum vitae of no more than 3 pages, including names and email addresses of 2-3 references, (ii) a short letter (~1 page) summarizing previous research and the motivations for joining the postdoctoral modelling program. Letters of recommendation are welcome.

Review of applications will begin immediately and continue until the position is filled. Interviews of relevant applicants will be organized on a continuous basis. We encourage potential applicants to inquire informally by email whether the position is still open before submitting a full application.

Send all material to: Dr Bruno Ernande
(bruno.ernande@ifremer.fr)

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

MPI AnimBehav EvolEcolBirdMigration

THREE-YEAR POSTDOCTORAL POSITION at the Max Planck Institute of Animal Behaviour: Understanding the eco-evolutionary dynamics of seasonal migration in a partially migratory songbird

The Department of Migration at the Max Planck Institute of Animal Behavior is looking for a highly motivated Postdoc. The department offers a postdoctoral position for 3 years on the ecology and evolution of partial migration. This project is part of an ongoing research program understanding the decision rules of a migratory live in songbirds within the Partecke lab.

The project:

The study species is the Common blackbird (*Turdus merula*) which is either stationary year-round, partial, or full migratory. The clear-cut behavioral dichotomy of migrant versus resident phenotypes enables us to investigate both proximate and ultimate causes of migration within the same species. Using newest IoT biologging technology, we monitor, in a collaborative effort, blackbirds from various populations across entire Europe with an unprecedented high spatial and temporal resolution. In addition, we also study migration strategies of birds originating from full resident, partial or fully migratory populations that are bred under common garden conditions in our breeding facilities but then released into the wild. In addition to where individuals roam, onboard processed acceleration data allow us to estimate the energetic cost of living during the annual cycle and to determine when and where individuals die.

The aim of this project is to elucidate the decision rules that animal use to move across landscapes. What factors determine whether, when and where to migrate? Do these rules differ between populations. To what extent are these rules hard-wired, within individuals and populations, and/or plastic responses to environmental

conditions. Do migrants experience different energetic costs compared to full residents during the annual cycle?

Besides analysing data and writing manuscripts, the successful candidate will do field work as well.

Job requirements:

Applicants must have a PhD degree at the start of this position. A background in animal behavior and/or ecology, experience with handling large data sets, and the analysis of animal movement data are required. Because the successful candidate will have large amounts of tracking data available strong statistical analytical and computational skills are critical. Practical experience with field work is advantageous, but not necessary. The successful candidate is also expected to have good collaborative skills and proven abilities to publish and present at a high international level.

The candidate can start as soon as possible and preferably before summer 2025.

How to apply:

Interested applicants should submit a CV, names and contact information for 3 references, and a cover letter. The cover letter should include (1) a summary of the applicant's research so far and (2) their experience with the analyses of movement and spatial data, and (3) 1-3 research questions and approaches that the applicant would like to pursue within in the blackbird project. Please send your application under this link <https://bewerbermanagement.net/en/jobposting/-a5817bfa94130cc46bd015bcfb4a4634122b7bd50/apply>. For questions about the position please contact Dr. Jesko Partecke (partecke@ab.mpg.de).

Applications will be gladly accepted before January 07, 2025.

Other links:

<https://www.ab.mpg.de> <https://www.ab.mpg.de/-342916/partecke> "Partecke, Jesko"
<partecke@ab.mpg.de>

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NorthernArizonaU BacterialEvolution

Position: Postdoctoral Scholar in Bacterial Evolution

We are pleased to announce a Postdoctoral Scholar position to study bacterial evolution at the Pathogen and Microbiome Institute at Northern Arizona University with Professor Paul Keim. The scholar will have the opportunity also work with Professor Sam Sheppard at The University of Oxford on joint projects. See our recent paper on interspecific gene flow in *Campylobacter*. (DOI: <https://doi.org/10.1128/mbio.00581-24>)

The job description: “This research position focuses on the science of bacterial evolution. It will consist of researching theoretical principles, but could include translational applications. Phylogenomic and bioinformatic analysis of bacterial populations in nature or in laboratory experiments will be a key component of the work. Prior experience is an asset though training will be possible at PMI. Likewise, laboratory microbiological, molecular, and biochemical skills are an asset though not essential. Communication and critical thinking skills are essential for performing the work and for communicating to the local and international scientific communities. Participating in team or independent grant writing to obtain research funding will be required. Student mentoring is a part of the NAU mission and is a partial expectation.”

https://hr.peoplesoft.nau.edu/psp/-ph92prta/EMPLOYEE/HRMS/c/-HRS_HRAM.HRS_APP_SCHJOB.GBL?Page=-HRS_APP_JBPST&Action=U&FOCUS=-Applicant&SiteId=1&JobOpeningId=-608024&PostingSeq=1 Northern Arizona University is located in Flagstaff, Arizona, a beautiful mountain town with a surprisingly vibrant restaurant scene. Located a little over an hour from the Grand Canyon and ~45 min from Sedona, Flagstaff is a hiker’s paradise. In fact, the city of Flagstaff operates more than 50 miles of unpaved trails and there are, on average, 266 sunny days per year with which to enjoy them. At 7000 ft in elevation, Flagstaff experiences all four seasons, but the summers are mild and, in the winter, you can be on the ski slopes within 30 min! <https://www.flagstaffarizona.org/> As mentioned, joint projects with Professor Sheppard at Oxford University are possible, including travel to his laboratory in the United Kingdom. <https://->

www.biology.ox.ac.uk/people/samuel-sheppard Contact Information: Paul.Keim@nau.edu

Paul S. Keim, Ph.D. Regents Professor, & Cowden Endowed Chair of Microbiology Northern Arizona University Flagstaff, AZ 86011-4073

Paul S Keim <Paul.Keim@nau.edu>

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SaoPauloStateU PlantSystematics

Post-Doctoral Fellowship in Plant Molecular Biology

The Plant Systematics Laboratory at the São Paulo State University’s Faculty of Agrarian and Veterinary Sciences (FCAV-v) in Jaboticabal, Brazil, is seeking a post-doctoral fellow to conduct research in Plant Molecular Biology within the scope of CBioClima - a Research, Innovation and Dissemination Center (RIDC) supported by the São Paulo Research Foundation (FAPESP) and hosted by the Institute of Biosciences (UNESP Rio Claro). The project involves large-scale sequencing, assembly, and annotation of complete genomes and transcriptomes of Lentibulariaceae species, aiming to study their responses to morphological adaptations and specific environmental factors.

Candidates must hold a Ph.D. in Plant Biology, Plant Genetics, or related fields. Requirements include solid knowledge and practical experience in molecular biology techniques, including gene expression analysis and NGS sequencing, with preference given to experience with nanopore technologies. Proficiency in bioinformatics and programming languages such as Python, Perl, R, and Markdown is essential. Familiarity with the Lentibulariaceae family, genomic evolution, plant evolution, plant collection and sampling practices, and fieldwork are considered strong advantages. The candidate’s qualifications must be demonstrated by publications in peer-reviewed journals. Fluency in English and the ability to collaborate within interdisciplinary teams are mandatory. Applicants should send a motivation letter (200 words maximum), a curriculum summary in the FAPESP format or a link to his/her CV, and two letters of recommendation to tor.miranda@unesp.br with the subject line “PD_Lentibulariaceae/Molecular Biology.”

This opportunity is open to candidates of any nationality. The selected candidate will receive a FAPESP Post-Doctoral fellowship in the amount of R\$ 12,000.00

monthly and a research contingency fund, equivalent to 10% of the annual value of the fellowship which should be spent on items directly related to the research activity.

Unit/Institution: Faculdade de Ciências Agrárias e Veterinárias, Universidade Estadual Paulista (FCAV-Unesp) Via de Acesso Prof. Paulo Donato Castellane, s/n (Departamento de Biologia - Laboratório de Sistemática Vegetal), Jaboticabal, Brazil

Deadline for submissions: 2025-01-20

Vitor Fernandes Oliveira de Miranda, Prof. Dr. Associate Professor São Paulo State University (Unesp) School of Agricultural and Veterinary Sciences Laboratory of Plant Systematics - DB/LSV Via de Acesso Prof. Paulo Donato Castellane s/n CEP 14884-900 Jaboticabal - SP - Brazil Phone: +55 (16) 3209-7205 email: vitor.miranda@unesp.br <https://www.fcav.unesp.br/vmiranda> Curator - Herbarium JABU: <http://shorturl.at/gmqBR> Principal Investigator - CEPID-CBioClima: <http://www.cbioclima.org> <http://orcid.org/0000-0003-0574-9865> <https://github.com/plantsystematicslab> (Â) “Se não tivermos uma lâmpada elétrica, acendamos nosso toco de vela ou, em último caso, risquemos fósforos repetidamente, como um sinal de que não desertamos nosso posto.” (Árico Veríssimo)

Vitor Fernandes Oliveira de Miranda
<vitor.miranda@unesp.br>

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StanfordU FunctionalBiogeography

Dear Friends and Colleagues,

We are looking for a post-doc to start as soon as possible to work on plant functional biogeography & macroecology. The successful candidate will explore trait diversity, species distributions, & evolutionary processes using cutting-edge tools, and large vascular plant diversity datasets. Please share widely with your networks.

Apply at:

<https://forms.gle/AiLC6yj5dhxjNCan8> Best wishes

Barnabas

Barnabas Daru, Ph.D. Assistant Professor of Biology
Stanford University Email: bdaru@stanford.edu Lab
website: darulab.org

Barnabas Daru <bdaru@stanford.edu>

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UBasel ComparativeSingleCellGenomics

Postdoc: UBasel.ComparativeSingleCellGenomics A fully funded 4-year Postdoc position is available in the lab of Patrick Tschopp at the University of Basel, Switzerland, study the molecular and tissue-scale dynamics during the embryonic formation of the vertebrate skeleton and compare it across different vertebrate species with distinct habitats.

We are looking for a highly motivated candidate with a PhD degree in Bioinformatics or a related field. Candidates are expected to have a strong background in evolutionary biology and/or comparative functional genomics. Additional experiences in single cell functional genomics analyses, statistics and computational data analyses are a plus, as is an interest in comparative developmental (EvoDevo) questions.

We offer a dynamic and interactive research environment with state-of-the art research facilities, good research funding and internationally competitive salaries.

The Tschopp lab (www.evolution.unibas.ch/tschopp/-research/) studies the gene regulatory mechanisms of cell type specification and evolution in vertebrates. See also our preprints at <https://doi.org/10.1101/2024.03.26.586769> and <https://doi.org/10.1101/2024.11.28.625862> Applications should include a motivation letter, a CV, a list of publications, a statement about research interests, as well as the names and contact details of at least two referees. Applications (in the form of a single .pdf file) should be sent to Patrick Tschopp (patrick.tschopp@unibas.ch); review of applications will begin on January 1st 2025, and will continue until the position is filled.

Patrick Tschopp <patrick.tschopp@unibas.ch>

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UCalifornia LosAngeles CurationPlantCollections

Post-doctoral Living Collections Curator UCLA Mathias Botanical Garden

Job Description

The UCLA Mathias Botanical Garden and Herbarium seek applications for a curator of living plant collections to work on a two-year project to review and analyze the composition of existing plants of the Garden and help develop a strategic plan to enhance the Garden as a Living Museum. This position, funded by an award from the Institute of Museum and Library Services, will be a two-year appointment to work exclusively on a grant-funded project to create a road for the future of the UCLA Botanical Garden that will meet its educational, research, and outreach goals. The post-doctoral curator will be supervised by the Garden Director and work closely with the herbarium curator, the Garden's science advisor, the Assistant Director, and other Garden staff. This position presents an exciting opportunity to be a key participant in a strategic planning process to enhance the extensive and historically significant collections of the UCLA Mathias Garden and is ideal for someone seeking a career in management of botanical garden collections or herbarium curation. The position is available in January 2025.

Responsibilities for the position will change over the course of the project. Initially, the curator will update and check the inventory of the current IrisBG database and supervise students to archive vouchers that are not currently in the herbarium. Second, the person will analyze the data bases for taxonomic and biogeographical representation in the Collections. Third the person will analyze the collections based on additional criteria generated through a consultation process and help draft a report of recommendations for future collections. The successful candidate must hold a PhD in plant systematics, botany, horticulture, biology, or a related field by the date of appointment. The ideal candidate will have expertise in digital data bases, plant identification, and/or botanical garden curation. Good writing skills are also desirable. The curator must be comfortable taking responsibility for the curatorial aspects of the project while also working as part of a team on drafting the final report. The candidate must also be willing to supervise and mentor undergraduate assistants. Indi-

viduals with a history and commitment to mentoring undergraduates from underrepresented groups in the sciences are encouraged to apply.

Please submit application materials through UC Recruit: <https://recruit.apo.ucla.edu/JPF09879> an application deadline of January 2, 2025. Documents must include (in pdf format): Curriculum Vitae; cover letter, which should describe reasons for interest in position and experience relevant to this position; statement of efforts to promote diversity and inclusion; and list names of three references with contact information. Please direct questions or nominations to Garden Director, Dr. Victoria L Sork, vlork@ucla.edu

The University of California is an Equal Opportunity/Affirmative Action Employer advancing inclusive excellence. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, protected veteran status, or other protected categories covered by the UC nondiscrimination policy.

VICTORIA SORK <vlork@g.ucla.edu>

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UExeter UK EvolutionBodyShape

A three -year Leverhulme Trust funded postdoctoral position is available at the University of Exeter's Penryn Campus (UK) starting April 2024. The post is to work on the evolution of body-shape and how intralocus sexual conflict affects sex-specific evolution. For further information see: https://jobs.exeter.ac.uk/hrpr_webrecruitment/-wrd/run/ETREC179GF.open?VACANCY_ID=-914017o03z&WVID=171839ediw Or contact David Hosken (d.j.hosken@exeter.ac.uk) for more detail.

Prof David Hosken Deputy Pro-Vice-Chancellor Faculty of Environment, Science and Economy University of Exeter

<https://www.exeter.ac.uk/faculties/ese/about/-leadership/> https://scholar.google.co.uk/citations?hl=en&user=YeJ4MkYAAAAJ&view_op=list_works "Hosken, David" <D.J.Hosken@exeter.ac.uk>

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UHelsinki InsectSymbiosis

POSTDOCTORAL POSITION in coevolution - the University of Helsinki

The Insect Symbiosis Ecology and Evolution (ISEE) Research Group at the Organismal and Evolutionary Research Program, the University of Helsinki, Finland invites applications for a

POSTDOCTORAL RESEARCHER

in Microbiota Manipulation for Pathogen Control in Pollinators

Symbiotic bacterial communities can play an important role for the health and evolution of the hosts that they associated with. Many insects harbor beneficial gut microbiotas involved in resistance against disease. Furthermore, both biotic and abiotic factors can influence the bond between hosts and their associated microbes, and create an imbalance that may be linked to a decrease in the fitness of the host organism, and their population dynamics. This comprehensive project focuses on how resilient bacterial communities associated with bumblebees are to pathogen infections. The selected candidate (postdoc level) will test the effect of pathogens on the species composition of the microbiota of bumblebees in the laboratory, and test for the beneficial effects of diverse bacterial species in maintaining microbiota and host health. Tasks will include insect rearing in laboratory conditions, molecular work, microbiota analyses, and writing of manuscripts. The specific details of the project will be adjusted to fit the research interests of both the PI and the postdoc.

<https://jobs.helsinki.fi/job/Helsinki-Postdoctoral-Researcher-in-Microbiota-Manipulation-for-Pathogen-Control-in-Pollinators/808615502/> For this position, experience with conducting experimental assays with animals and in completing analyses of metabarcoding or metagenomic data is required. Additional skills in analyses of RNAseq data and behavioral data, and in conducting outreach are meriting but not strictly mandatory. Candidates with degrees in Evolutionary Biology, Molecular Biology, Microbiology or similar, with experience in the above-mentioned research area are strongly encouraged to apply.

The position is available in the ISEE research group of Dr. Anne DUPLOUY, starting as soon as possible, but no later than June 2024. The ISEE research group

is part of the Organismal and Evolutionary Biology research program (OEB) within the Faculty of Biological and Environmental Sciences in the Viikki Science park. The faculty hosts over 40 leading research groups in Plant and Animal Ecology, Evolutionary Genetics, among others. This community interacts on a regular basis through seminars. The University of Helsinki provides office space, computers, bench in a State-of-the-art molecular laboratory, as well as data storage space with regular automatic backups. The campus offers various key facilities, including green houses and climate chambers for insect and plant rearing, laboratories furnished with state-of-the-art molecular equipment, genome sequencing and microscopy facilities. Computational resources from CSC are available. The project is in collaboration with Prof Johan EKROOS from the Faculty of Agriculture and Forestry at the University of Helsinki. International collaborations with colleagues from Montpellier, Graz and Warwick Universities are possible within the scope of the project.

For more information on the hosting research group: www.anneduplouy.net; and the PI: <https://www.helsinki.fi/en/researchgroups/insect-symbiosis-ecology-and-evolution> The salary is defined in accordance with the University salary system for teaching and research personnel (and depending on the appointee's qualifications and experience). The position is for a fixed-term of 2 years. A trial period of six months will be applied. The position will be filled as soon as possible, or as agreed with the selected candidate, but no later than June 2025. The University of Helsinki offers comprehensive services to its employees, including occupational healthcare, access to high quality sports facilities, and opportunities for professional development (pedagogy, language, etc). There are also several funding opportunities that the candidate may consider to acquire their own funding with support from the PI.

The application should include the following attachments as a single pdf file (in English): 1) Statement on your background, your motivations to join the research group, and ambitions (eg. How do you fit?, what would you bring?, what do you seek?) (max. 1 page) 2) Curriculum Vitae 3) List of publications (preprints can be mentioned, if a doi is also provided) 4) Names and contact details of two references

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

UKonstanz ExptEvolutionEndosymbiosis

We are excited to announce postdoctoral researcher positions in the Aquatic Ecology and Evolution group at the University of Konstanz (<https://www.limnologie.uni-konstanz.de/beck/>). This is an excellent opportunity to contribute to a project focused on the evolutionary processes and ecological conditions that favour the evolution of symbiosis. We are looking for a highly motivated researcher to join us in investigating the conditions, evolutionary pathways, and mechanisms that drive the evolution of endosymbiotic interactions between algal cells and ciliates. The successful candidate will participate in large-scale evolutionary experiments aimed at understanding the evolution of ciliate-algal endosymbioses.

Main responsibilities

Lead and contribute to ongoing and future large-scale evolutionary experiments focused on the evolution of endosymbiosis.

Publish research findings in high-impact journals and present results at leading international conferences.

Drive the development of new research directions, leveraging both the lab's expertise and your own background in ecology and evolution.

Collaborate with fellow lab members, enriching the intellectual environment through student supervision and engaging discussions.

Seek and secure external research funding to support and expand future projects.

Required qualifications

PhD in a relevant field, such as ecology, evolutionary biology, or a related discipline.

Experience in experimental evolution and studying species interactions.

Proficiency in working with micro- or planktonic organisms, designing experiments, and analyzing quantitative data.

A strong track record of innovative research, with demonstrated success in publishing in peer-reviewed journals and presenting findings at scientific conferences.

Excellent communication skills, both written and oral,

with the ability to work independently and as part of a diverse, interdisciplinary team.

A high level of motivation to pursue independent research and seek external funding opportunities.

We offer

The opportunity to join a highly collaborative team working on diverse and innovative projects within our field of study. A chance to contribute to a project with the potential to make significant advances in our understanding of major evolutionary shifts. Access to state-of-the-art facilities and cutting-edge equipment for high-throughput techniques, automated imaging, and molecular methods. Opportunities for professional growth, including mentoring, grant writing experience, and leadership roles within the project. Current funding available through March 2027. Salary based on the "E 13 TV-L" scale.

Konstanz is a very beautiful and pleasant place to live, bordering the third largest lake in Central Europe and close to the Alps. As an equal opportunities employer, we welcome applications from all sections of the community regardless of age, gender, gender identity, ethnicity, disability and sexual orientation. Interested candidates should send a CV, a short cover letter highlighting interests and potential research questions, and the contact details of two professional referees as one pdf to Lutz Becks. For further information, please email Lutz Becks. Application deadline 13. January 2025.

Prof. Dr. Lutz Becks University of Konstanz
Aquatic Ecology and Evolution Universität
10 78464 Konstanz / Egg Germany Phone: 07531
88 2828 E-Mail: lutz.becks@uni-konstanz.de <https://www.limnologie.uni-konstanz.de/en/ag-becks/> <https://www.dynasym.uni-konstanz.de/> <https://greenhab.site/-research/> Mailbox: Fach 648 Room M1056

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

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ULille EvolutionOfPlantReproduction

Post-doctoral position on the Evolution of Plant Self-Incompatibility

at the laboratory Evolution, Ecology and Paleontology (EEP), Lille, France

Our group tackles evolutionary questions on the fascinating topic of self-incompatibility (SI) in flowering plants, a widespread phenomenon that enforces outcrossing, by various molecular mechanisms and under complex evolutionary forces. In this context, *a 2-year post-doctoral position is available* to elucidate the molecular mechanisms of self recognition in the Brassicaceae SI system. In close collaboration with a laboratory expert in biochemistry (Institute for Structural and Functional Glycobiology located in the University of Lille), *the applicant will develop biochemical and functional assays on current and ancestralized proteins, to elucidate how a high number of specific self-recognition complexes function and evolve*. We seek a highly motivated applicant, with a strong interest in evolutionary questions from the molecular to the population scale. Previous experience in molecular biology, biochemistry and/or functional assays in plants is appreciated.

*The project will be coordinated by *Marie Monniaux < <https://eep.univ-lille.fr/user/marie.monniauxuniv-lille-fr/> > *(CR CNRS) and * Vincent Castric < <https://eep.univ-lille.fr/user/vincent.castric/> > *(DR CNRS), with complementary expertise on evolution, development, molecular genetics and genomics, in the context of plant reproduction.*

Our environment

The laboratory Evo-Eco-Paleo < <https://eep.univ-lille.fr/en/presentation-english/> > aims to better understand *the origin and evolution of biodiversity at different temporal scales***, with various approaches (population genetics and genomics, molecular genetics, evolutionary ecology and paleontology). The lab is equipped with large greenhouses and has dedicated space for standard molecular biology and plant transformation. Lille is a vibrant city ideally located at the nexus of Northern Europe. *

How to apply

The position starts on the *1st of April 2025 (negotiable)*.

Please send to _marie.monniaux@univ-lille.fr a motivation letter, a CV with a list of publications, a summary of past research, and contact information of at least two references.

Related publications from our group

- Chantreau et al., Asymmetrical diversification of the receptor-ligand interaction controlling self-incompatibility in Arabidopsis, eLife 2019

- Durand et al., Evolution of self-incompatibility in the Brassicaceae: Lessons from a textbook example of natural selection, Evolutionary Applications 2020

Marie Monniaux (PhD, HDR) Laboratory Evolution, Ecology and Paleontology Université de Lille, Cité Scientifique, Building SN2 59655 Villeneuve d'Ascq

I don't expect an answer outside of usual working hours.

Xavier Vekemans <xavier.vekemans@univ-lille.fr>

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UppsalaU

AvianDevelopmentalGenetics

Postdoctoral Research Opportunity in Avian Developmental Genetics

Building on our recent work on avian dosage compensation (doi:10.1101/2024.03.06.581755 < <https://doi.org/10.1101/2024.03.06.581755> >), we are seeking a highly motivated and skilled postdoctoral researcher to join our project investigating sex determination in birds. In collaboration with the Roslin Institute, this research utilizes advanced functional genomics tools (e.g., CRISPR-Cas9) and lentiviral systems for precise gene expression manipulation, focusing on the roles of candidate genes in avian sex determination in vivo.

Eligibility Criteria

* A doctoral degree in Molecular Biology, Cell Biology, Developmental Biology, Biotechnology, or a related field, awarded within the past three years.

Qualifications

* Hands-on experience with cell culture techniques. * Proficiency in CRISPR-Cas9 technology. * Expertise in molecular biology and immunohistochemistry.

Salary and Appointment Details

* A tax-free stipend of 28,000 SEK per month. * The appointment is for 24 months, with stipend payments made quarterly.

Application Requirements

* A complete curriculum vitae, including a full list of publications. * A brief motivation letter outlining your interest in and suitability for the position.

Applications should be sent to amir.fallahshahroudi@imbim.uu.se.

Amir Fallahshahroudi, Researcher

Uppsala University, Department of Medical Biochem-

istry and Microbiology

IMBIM, Box 582, 751 23 Uppsala

Mobile: +46 76 304 3306

När du har kontakt med oss på Uppsala universitet med e-post innebär det att vi behandlar dina personuppgifter. För att läsa mer om hur vi gör det kan du läsa här: <http://www.uu.se/om-uu/dataskydd-personuppgifter/> E-mailing Uppsala University means that we will process your personal data. For more information on how this is performed, please read here: <http://www.uu.se/en/about-uu/data-protection-policy> Amir Fallahshahroudi <amir.fallahshahroudi@imbim.uu.se>

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UppsalaU EcologyGeneticsEvolution

The Department of Ecology and Genetics at Uppsala University, Sweden, invites applications for postdoctoral fellowships through the Birgitta Sintring Foundation.

For details see here <https://www.uu.se/en/department/ecology-and-genetics/research/the-birgitta-sintring-foundation> Scholarships are handed out for up to 2 years, with the possibility for prolongation with a third year. Scholarships are handed out to young scientists (defined as up to 7 years after their PhD degree; career breaks, e.g., for child care and sick leaves, can be deducted from the total time).

Interested candidates should contact a group leader of their choice to discuss potential projects and obtain their support as a host (for a list of all group leaders see the tab PIs available as postdoc hosts or collaborators on the above website).

Uppsala University is a comprehensive research-intensive university with a strong international standing. Our ultimate goal is to conduct education and research of the highest quality and relevance to make a long-term difference in society. Our most important assets are all the individuals whose curiosity and dedication make Uppsala University one of Sweden's most exciting workplaces. Uppsala University has over 54,000 students, more than 7,500 employees and a turnover of around SEK 8 billion. The Department of Ecology and Genetics is an international environment with staff and students from all over the world. Research at the Department

of Ecology and Genetics spans from evolutionary ecology and genetics to studies of ecosystems. For more information, see www.ieg.uu.se. Please submit your applications by 9 February 2025. Applications have to be submitted through this the link on the above website Decision are taken in May 2025.

Claus Rueffler Associate Professor

Department of Animal Ecology Evolutionary Biology Centre Uppsala University Norbyvägen 18D 752 36 Uppsala Sweden

Phone: +46-(0)18-471 2639 <https://clausrueffler.github.io/> När du har kontakt med oss på Uppsala universitet med e-post innebär det att vi behandlar dina personuppgifter. För att läsa mer om hur vi gör det kan du läsa här: <http://www.uu.se/om-uu/dataskydd-personuppgifter/> E-mailing Uppsala University means that we will process your personal data. For more information on how this is performed, please read here: <http://www.uu.se/en/about-uu/data-protection-policy> Claus Rüffler <claus.rueffler@ebc.uu.se>

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UppsalaU EvolutionaryGenomics

PostDoc in Evolutionary/Conservation Genomics

General:

The Department of Ecology & genetics at Uppsala University is an international academic environment with approximately 150 employees. The research we do and the courses we teach span a wide range of topics from evolutionary ecology and genetics/genomics to ecosystem processes. We are now looking for a PostDoc who can strengthen our research expertise in the area of evolutionary biology in general, and in conservation genomics specifically. The position will be affiliated with the Evolutionary Biology Program and co-hosted by the Animal Ecology Program. The two programs excel in many aspects of evolutionary genomics research and offers an inspiring international atmosphere. There are ample opportunities for interaction with PIs, PhD-students, PostDocs and researchers working on related topics. We are tightly linked to the SciLife lab and have access to advanced laboratory infrastructure, high performance computing resources and bioinformatics support.

Project description: Conservation genomics research revolves around genomic analysis with the aim to preserve the viability of populations and the overall biodiversity of the living world. By applying genomics approaches, we can investigate species integrity, assess effects of potential hybridization, estimate genetic diversity, infer demographic histories and effective population sizes and characterize the adaptive potential of organisms. The large-scale 'omics' efforts can also be combined with experimental work in organisms that can be reared under controlled conditions to investigate for example associations between genotypes and adaptive traits and inbreeding or outbreeding depression. In this project, the candidate will use genomic data to characterize the demographic history of the clouded apollo butterfly (*Parnassius mnemosyne*) and the genomic landscape of differentiation between geographically isolated populations in Sweden. The candidate will also investigate effects of inbreeding on patterns of genetic diversity and the adaptive potential and genetic load of specific populations. Dependent on the interests of the candidate, the research can also involve other aspects of conservation genomics. All data needed to conduct the analyses are available, including a high-contiguity reference genome assembly and whole-genome re-sequencing data from all populations.

Duties:

* The main duties include planning and executing research projects associated with the conservation of the threatened clouded apollo butterfly in Sweden using available data. * The candidate should follow developments within the subject area and of society in general that are important for the work at the University. * The position may include other tasks associated with the everyday work at the program/department. * Information sharing with agencies involved in applied conservation actions of the species.

Qualifications required:

Ph.D. degree or a foreign degree equivalent to a doctoral degree in evolutionary biology, conservation genomics or a related field. The candidate should show a high level of independence, and background knowledge/experience with bioinformatic analyses and/or programming will be necessary. Candidates must also be able to express themselves fluently in spoken, as well as, written English.

Qualifications desired:

The ideal candidate is highly motivated and enthusiastic about evolutionary biology in general, and conservation genomics in particular, and has a good understanding of population genetics. Thorough experience with demo-

graphic modeling, programming and statistical analyses of large-scale genomics data will be advantageous.

About the position:

The formal ad can be found here: <https://www.uu.se/en/department/ecology-and-genetics/news/archive/-2024-12-10-postdoc-in-evolutionary-conservation-genomics> This is a stipend-based position, not an employment. The stipend is intended to cover living costs and is tax-exempt under current regulations (subject to the applicant's individual tax situation). The stipend is offered for a duration of 24 months. The starting date is 2024-05-01 or as agreed upon. The position is full-time and affiliated with the Evolutionary Biology Program, Department of Ecology and Genetics, Uppsala University, Sweden.

For further information about the position, please contact: Professor Niclas Backström, +46-18-471 3654 or Professor Jacob Höglund (jacob.hoglund[at]ebc.uu.se), +46-18 471 2671.

Application instructions:

The application should include 1) a letter describing yourself, your research interests, and why you apply for the position, 2) your CV, 3) a brief description of your education, 4) a copy of your Ph.D. degree

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UppsalaU EvolutionOfMicrobial-SpeciesInteractions

Title: Post-doctoral position to investigate the evolution of novel species interaction using an experimental evolution approach

Location: Uppsala University, Sweden Duration: Time-limited postdoc scholarship (stipend, 100%) for 2 years (starting date will be as soon as possible).

We are seeking to hire a post-doc to investigate the ecological conditions that result in the evolution of novel species interactions. To determine these conditions the project will employ an experimental evolution approach and use multi-species systems of bacteria. The research is led by Dr. Omar Warsi and will be carried out at the

Department of Medical Biochemistry and Microbiology at Uppsala University, Sweden.

Project Description: Ecological interactions are a fundamental aspect of natural ecosystems and have been extensively studied by ecologists and evolutionary biologists for over a century. These investigations have significantly enhanced our understanding of the mechanisms underpinning such interactions. However, beyond resource competition, little is known about the factors that drive species to develop antagonistic or synergistic interactions. Critical questions remain, including: (i) How do environmental conditions and the genetic characteristics of interacting species contribute to the emergence of novel ecological interactions? and (ii) Can we identify and predict the conditions that lead to the development of specific types of interactions or transitions between antagonistic and synergistic states? This project seeks to address these knowledge gaps by generating empirical predictions about the formation of novel interactions between co-existing bacterial species under varying ecological conditions. Using an experimental evolution approach, it will test the ecological factors influencing these predictions, aiming to uncover general principles governing the evolution of species interactions.

Qualifications: We are looking for a postdoc who has a PhD in evolutionary biology or evolutionary ecology, where the PhD work was focused on bacterial systems. Experience in work with experimental evolution and knowledge of ecological theories of species interactions are desirable. The successful candidate should demonstrate excellent analytical and practical skills, an ability to independently plan experiments, and be enthusiastic to supervise Master's students. They should have high skills in written and spoken English and the ability to work in a multi-disciplinary team.

Instructions for application: To apply, please send your application to Dr. Omar Warsi atomar.warsi@imbim.uu.se.

and include in your application as a single PDF: i) A cover letter briefly describing your research interests and a motivation for why you would be suitable for this position (maximum 2 pages) ii) Curriculum vitae including publication list iii) Copy of proof of passed PhD exam, and iv) Names, email addresses and telephone numbers of two references For further information about the position please contact: Dr. Omar Warsi, omar.warsi@imbim.uu.se

Omar Mahmud Warsi Group Leader/Associate Professor Department of Medical Biochemistry and Microbiology, IMBIM Uppsala University Box 582, Husargatan 3, SE-751 23 Uppsala, Sweden Email: omar.warsi@imbim.uu.se

Page Title

När du har kontakt med oss på Uppsala universitet med e-post innebär det att vi behandlar dina personuppgifter. För att läsa mer om hur vi gör det kan du läsa här: <http://www.uu.se/-om-uu/dataskydd-personuppgifter/> E-mailing Uppsala University means that we will process your personal data. For more information on how this is performed, please read here: <http://www.uu.se/en/-about-uu/data-protection-policy> Omar Mahmud Warsi <omar.warsi@imbim.uu.se>

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UppsalaU MolecularEvolution

Postdoctoral position in Molecular Evolution

Are you interested in working with the analysis of existing genomic and proteomic datasets, with the support of competent and friendly colleagues in an international environment? Are you looking for an employer that invests in sustainable employeeship and offers safe, favourable working conditions? We welcome you to apply for a Postdoctoral position at Uppsala University.

The Department of Cell and Molecular Biology is divided into seven research programs, each focusing on different areas within cell and molecular biology: computational biology and bioinformatics, microbiology and immunology, molecular biology, molecular biophysics, molecular evolution, molecular systems biology, and structural biology. The scientific foundation of what we do lies in biology, but our research overlaps with other fields such as medicine, computer science, mathematics, chemistry, engineering, and physics. The department has over 200 employees, including around 60 doctoral students. Please read more about our work at <https://icm.uu.se>. The position is placed in the Molecular Evolution program, with main supervisor Jennifer James. The applicant will become a member of a newly established research group focusing on mutational robustness, with the overall aim of improving our understanding of the fitness effects of new mutations and the evolution of the proteome. If you are interested in using bioinformatics and computational biology to address big question in evolutionary biology, please get in touch!

Duties The project will involve the analysis of existing genomic and proteomic datasets. The successful

applicant will be responsible for conducting statistical analyses, and for writing and publishing scientific articles. There are two specific research projects that the applicant could spearhead, with flexibility for the applicant to shape the direction of their research to their skillsets and interests.

In the first project, the applicant will explore proteome evolution to understand the effects that speciation and duplication at the level of the protein sequence have on the functional and structural diversity of proteins. The applicant will build protein-level phylogenetic trees to assess the relationship between these processes. The applicant will also examine whether mutational robustness confers an adaptive advantage, by assessing whether the most mutationally robust sequences have undergone the greatest degree of expansion over evolutionary time. In the second project, the applicant will focus on investigating patterns of molecular evolution and mutational robustness that vary with genome structure and gene function, by investigating patterns in the fitness effects of new mutations. The project could also include a consideration of the effects of large-scale genome structure changes, such as variation in genome size.

Requirements We are looking for a highly motivated individual with a PhD degree in biology or a foreign degree equivalent to a PhD degree in biology. The degree needs to be obtained by the time of the start date of employment. Priority will be given to applicants who have completed their degree no more than three years before the deadline for applications. Due to special circumstances, the degree may have been obtained earlier. The three-year period can be extended due to circumstances such as sick leave, parental leave, duties in labour unions, etc. Candidates must be able to express themselves fluently in spoken and written English.

A population genetics or evolutionary biology background will be considered beneficial for this position. The applicant will be responsible for the collaborative creation and curation of protein and DNA datasets, and as such experience of computational biology or bioinformatics is desired, as are good communication skills, and the ability to work collaboratively. The ideal candidate is comfortable with bioinformatics and performing analyses on sequence data, and enjoys exploring research ideas independently.

Additional qualifications Ability to code in Python is a valuable skill for this post. Experience working with a high-performance computer cluster is also important, as is an ability to use command line tools, and to conduct statistical analyses in programmes such as R.

About the employment The employment is a temporary position of 2 years according to central collective agree-

ment. Full time position. Starting date 2025-02-10 or as agreed. Placement: Uppsala

Application Please submit your application through Uppsala University's recruitment system.

Please submit your application by the 3rd of January 2025, UFV-PA 2024/4191.

For further information about the position, please contact: Jennifer James, jennifer.james@icm.uu.se

Are you considering moving to Sweden to work at Uppsala University? Find out more about what it's like to work and live in Sweden.

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UppsalaU ProteomicsAlgalEvolution

Postdoctoral fellow in proteomics and eukaryotic evolution

The employment is time-limited for 3 years. The scope is full-time. Location: Uppsala

For information about the position, please contact: Fabien Burki <fabien.burki@ebc.uu.se>

Deadline for applying: January 20, 2025

Apply here: <https://uu.varbi.com/se/what:job/-jobID:778680/> This project is part of an ERC Consolidator grant (PlastidOrigin) awarded to Fabien Burki and aims to study one of the most transformative events in the evolution of eukaryotes: the origin of the photosynthetic organelles (the primary plastids) in the Archaeplastida. The main objective of this postdoctoral position is to create a protein atlas for each organelle of selected red algae and glaucophytes by using whole-cell spatial proteomics with the hyperLOPIT method. By combining these data with verified proteomes of other archaeplastids, and by searching for homologues in other eukaryotes and prokaryotes, we aim to characterize the origin of plastid proteins and the size of the endosymbiotic vs. non-endosymbiotic plastid proteome fractions among the archaeplastids.

Duties

Maintain knowledge and workflow to perform proteomic

experiments in the lab. Use hyperLOPIT on red algae and glaucophytes. Be the contact person for communication with mass spectrometry facilities. Perform routine maintenance of cell cultures. Developing cellular transformation in red algae. Work with high-resolution 3D microscopy data, such as FIB-SEM data. Generate and analyze RNA-seq data. Grow red algal cultures and run hyperLOPIT. Inferring the cellular location of protein using machine learning. Analyze the data in a plastid development context. Disseminate results in appropriate formats, including in leading peer-reviewed publications and at conferences. Training of junior team members may also be included, as well as other standard tasks related to a research team.

Qualification requirements

We are looking for you who either have a degree (minimum PhD) in a relevant field such as biology, chemistry or equivalent. The degree must be completed at the latest at the time when the employment decision is made. Primarily, those who have completed their degree no more than three years ago should be considered. When calculating the time frame of three years, the starting point is the application deadline. If there are special reasons, such a degree may have been completed earlier. Special reasons refer to leave due to illness, parental leave, positions of trust within trade unions, etc.

We are looking for an enthusiastic person with the desire to share and establish a new methodology in the Burki lab. The successful candidate should have a solid list, appropriate for their career stage, of high-quality research publications. Great importance is placed on personal qualities such as high motivation, planning and organizational skills, problem solving, stress management. We strive to create a friendly atmosphere among team members and other employees in the workplace, so a collegial ability to work as part of a team is necessary. For this position, proven experience in mass spectrometry and proteomics is imperative, and must be demonstrated through scientific publications in these areas.

The applicant should also have documented skills in wet lab techniques, such as molecular biology (ie, PCR, cloning, Western blot, SDS-PAGE, protein/DNA/RNA extractions), cellular transformation, and cell culture. Previous experience with 3D image analysis, such as FIB-SEM data, will be considered a valuable asset. Excellent statistical analysis and bioinformatics skills (especially in R) are required, and previous experience with R packages for spatial proteomics analysis, such as pRoloc, is highly beneficial. Prior knowledge of methods of sub-cellular fractionation (using ultracentrifugation) and of hyperLOPIT or LOPIT-DC will be seen as a great asset.

A strong interest in evolution and microbial eukaryotes is a desirable characteristic of the candidates. Knowledge of English, both oral and written, is a requirement. The candidate should be willing to travel, for shorter (eg conference) or longer periods if training is necessary.

Ni½r du har kontakt med oss p½ Uppsala universitet med e-post si½ inneb½r det att vi behandlar dina personuppgifter. Fi½r att li½sa mer om hur vi g½r det kan du li½sa h½r: <http://www.uu.se/-om-uu/dataskydd-personuppgifter/> E-mailing Uppsala University means that we will process your personal data. For more information on how this is performed, please read here: <http://www.uu.se/en/about-uu/data-protection-policy>

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USaoPaulo Two GenomicsClimateAdaptation

2 Postdoctoral Fellowships in Ecology, Evolution and Genomics of Climate Adaptation

Universidade de São Paulo (Brazil)

We have two FAPESP postdoctoral fellowships available to work at Rodrigo Cogni' lab at the Ecology department, Biosciences Institute, Universidade de Sao Paulo in Brazil. The postdoctoral fellow will work on some of the following projects: (1) Clinal adaptation in South American *D. melanogaster* populations at the phenotypic and genomic levels, (2) Climate adaptation in Neotropical drosophilid species from the Atlantic Forest and the Cerrado savannah, (3) The influence of gut bacteria and the endosymbiont *Wolbachia* on climate adaptations, (4) The interactions among Neotropical drosophilids, *Wolbachia* and viruses.

Overall in the next few years our group will be working on a project that have five main innovative features: (1) the use of modern next-generation sequencing technologies integrated with laboratory and field studies on natural populations, (2) the use of extensive material that has been in storage for 20 years, to understand long-term genome wide responses to global warming, (3) our project is the first study to investigate clinal

variation in natural populations of *D. melanogaster** in South America over a broad geographical range, (4) we will investigate climate adaptation in a highly integrated way, from genomes and transcriptomes to phenotypes, including a very innovative mapping approach, and the influence of gut microbiota and the symbiont *Wolbachia**, and (5) we will use natural population of extremely diverse neotropical drosophilids and their interactions with *Wolbachia** and viruses to understand climate adaptation and evolution of ecological interactions.

Fellows will have the opportunity to guide the direction of the research depending on their interests and to collaborate on other projects at the Cogni's lab.

The initial fellowship would be for two years, with the possibility of renewing it for an additional two years. There is also the possibility to apply for a Research Abroad Fellowship to spend an additional year in one of our international collaborators or any research group abroad. FAPESP pays 12,000.00 reais/month (tax free), relocation costs and 14,400 reais/year for training, conferences, and research expenses.

We are seeking highly motivated candidates who have a deep interest in this area of research. Previous experience of some of the approaches that will be used in the project is preferable but not required. Applicants must have a PhD in evolutionary biology, ecology, genetics, or related fields. To be considered, please submit the following material by email to Prof. Rodrigo Cogni (rcogni@usp.br):

1. Cover letter outlining your interests and suitability for the position
2. Curriculum vitae
3. Up to three examples of published papers
5. Names and contact information of two references.

Application deadline: January 26th, 2025.

Start date: Ideally early 2025, but flexible.

Address questions about the application/nomination process to Prof. Rodrigo Cogni (rcogni@usp.br)

We support diversity and encourage applications from women and groups under-represented in science.

Rodrigo Cogni

Associate Professor, Department of Ecology, Universidade de São Paulo

Rua do Matão 321, Trav. 14 (sala 358) Cid. Universitária, São Paulo-SP CEP: 05508-090 Brazil
E-mails: <E-mails%3Arodrigocogni@gmail.com>
rcogni@usp.br and rodrigocogni@gmail.com

<E-mails%3Arodrigocogni@gmail.com> <http://ecologia.ib.usp.br/ecoevo/>
Rodrigo Cogni
<rcogni@usp.br>

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UTexas Austin ImmuneResponses- ToPathogenInfections

We are looking for an NSF-funded post-doc in our lab in the Department of Integrative Biology at the University of Texas at Austin. The work will examine immune mechanisms that potentially underlie susceptibility of frogs to the chytrid fungus Bd (*Batrachochytrium dendrobatidis*). Specifically, the project entails characterizing T-cell receptors in experimental populations of bullfrogs under different growth conditions, to assess the plasticity of receptors and their downstream effect on host tolerance to the pathogen. Our lab has a long history of studies in this host-pathogen system, and we are looking for someone to extend these analyses to include experimental manipulation of hosts. The postdoctoral candidate will have the opportunity to interact closely with co-PIs at the University of Rochester (Jacques Robert), the University of Central Florida (Anna Savage), and Vanderbilt University (Ann Tate).

The postdoctoral candidate will be encouraged to carry out independent work. There is a wide variety of research going on in the lab in addition to the current project. For more details on our work, please see zamu-diolab.org

The candidate must have a Ph.D. at time of appointment, preferably in biology, immunology, population genomics, or related field. The position will require experience in working with frogs (in lab and/or field), molecular methods for collection of genomic data, and strong bioinformatic skills. Salary commensurate with experience.

To apply, please submit i) a letter of application, (ii) a full CV, (iii) a brief statement of research interests, and (iv) contact information for three references. Review of applications will start February 1st, 2025 and will continue until the position is filled. Start date can be as early as March 2025, but negotiable.

The link for applications is here: https://utaustin.wd1.myworkdayjobs.com/en-US/UTstaff/-details/Postdoctoral-Fellow?Zamudio-Lab_R_00037116

The University of Texas, Austin has an active group in evolutionary genomics, herpetology, disease ecology and considerable genomic and bioinformatic resources. Austin is situated in the scenic Texas Hill Country. The cultural environment provided by the University and the City of Austin is exceptionally rich in art, music, and entertainment.

Inquiries about the position can be directed to Kelly Zamudio (kelly.zamudio@austin.utexas.edu).

Kelly Zamudio

“Zamudio, Kelly R” <kelly.zamudio@austin.utexas.edu>

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UTurku EvolutionaryEcol

Lummaa Lab led by professor Virpi Lummaa at Department of Biology of the University of Turku seeks a postdoctoral researcher for 14-month fixed term position. The researcher will work in the NetResilience consortium funded by the Strategic Research Council of the Research Council of Finland. Professor Virpi Lummaa’s multidisciplinary research group broadly focuses on unraveling life histories of humans and elephants from an evolutionary perspective.

The NetResilience consortium explores how these changing social networks can help or harm population resilience and how this change can influence fertility and

wellbeing. Professor Lummaa’s work package in NetResilience focuses on the temporal perspectives in family networks: how these networks have changed and how they are linked to fertility and mortality in both historical and contemporary society.

We are looking for a postdoctoral researcher to unravel the questions on how human kin networks are associated with reproduction and lifespan at different times. This postdoc position focuses on quantifying the geographic distance to kin and how the variation in network spatial closeness is associated with reproduction parameters and survival at different life using unique longitudinal kin networks data that covers over 300 years of economic and demographic development in Finland.

The candidate should hold a doctorate degree in biology, sociology or demography or other relevant field and have strong experience in data management/science, complex analytical methods and publishing research articles in international peer-reviewed scientific journals. Furthermore, the candidate should have fluent oral and written communication skills in English and be willing to conduct interdisciplinary research in close collaboration with the PI and other members of the team.

Apply between 5 December 2024 and 15 January 2025 16:00 (Europe/Helsinki)

More information and the link to apply can be found here:

<https://ats.talentadore.com/apply/postdoctoral-researcher-in-biology/me1aBB?UTUID=20617> Milla Salonen <milla.salonen@utu.fi>

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WorkshopsCourses

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Guarda Switzerland EvolutionaryBiology Jun14-21 75	Online MachineLearning Feb17-21 79
Hybrid UkrainianSchool EvolutionaryBiology 75	Online Metabarcoding Jan20-Feb14 80
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Online BayesianStatisticsInR Mar3-7 76	Online SpeciesDistributionModelsInR Feb17-21 81
Online Bioinformatics Jan27-31 77	Paris PolygenicAdaptation Mar10-14 81
Online GenomicsFoodTraceability Feb25-28 77	Poland LandscapeGenomics Jan20-24 82
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Berlin
Floral Morphology And Systematics
Jul28-Aug8

Berlin Summer Course in Flower Morphology and Angiosperm diversification

28 July - 8 August 2025

This is the third version of a highly successful two-week workshop based at the Biological Institute of the Freie Universität Berlin and the Berlin Botanical Garden. The workshop benefits from extensive facilities, including functional microscopy laboratories and a huge plant collection of more than 20,000 species. The course is set up as lecture-based, laboratory taught, and interactive visits of the living collections.

FORMAT:

2-week workshop, lectures and hands-on practical sessions.

INTENDED AUDIENCE:

Final year undergraduate students, PhD students, post-doctoral and advanced researchers, professionals (but no formal restriction). A basic knowledge of botany is preferred but not essential.

COURSE INSTRUCTORS AND CONTACT:

Dr. Louis Ronse De Craene, Research Associate Royal Botanic Garden Edinburgh (l.ronsedecraene@gmail.com)

Prof. Julien Bachelier, Freie Universität Berlin (julien.bachelier@fu-berlin.de)

REGISTRATION FEE:

euro 800 (euro 600 for Undergraduate and Master students)

(Registration includes coffee breaks, daily lunches with snacks, but does not include travel and accommodation).

HOW TO APPLY, PAY AND SECURE A PLACE:

visit <https://www.conftool.net/berlin-summer-course-2025/> For further information please contact Dr. Louis Ronse De Craene (l.ronsedecraene@gmail.com).

PROGRAMME:

Course Description and outline:

This short course will introduce students to the structure and development of flowers, with a focus on floral diversity and evolution and the significance of flowers

for systematics. Major plant families will be studied within the framework of the main lineages of seed plants to understand their evolution and diversification. Additionally, students will learn to analyse, describe, and study the structure of inflorescences, flowers, and fruits, and based on their observations, to identify the main evolutionary patterns underlying their tremendous morphological diversity, as well as their potential pollination and dispersal mechanisms.

Course objectives and learning outcomes:

Through this course students will acquire the following skills:

- guidelines to identifying plants using morphological characters in the context of the molecular classification system.
- a better understanding of the origin and evolution of floral structures, including their importance for classification, and of the main developmental patterns and evolutionary trends which underlie the tremendous diversity of reproductive structures.
- an ability to observe and recognise key characters through the study of live floral material and the building up of floral diagrams.

Contents:

- Introduction to morphology of vegetative structures and flowers, inflorescence and flower structure (floral diagrams and formulas).
- Overview of major groups of flowering plants; major characteristics of Flowers and special attributes (phyllotaxis, aestivation, merism, symmetry, floral tubes and hypanthia).
- Floral evolution of the major clades of angiosperms with special emphasis on morphological adaptations and diversification.

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Louis Ronse De Craene
<LRonseDeCraene@rbge.org.uk>

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Guarda Switzerland EvolutionaryBiology Jun14-21

Course: Guarda summer school in evolutionary biology,
Switzerland, June 2025

It is my pleasure to announce the 2025 Guarda Summer
School in Evolutionary Biology for master and PhD
students. The main aim of the course is to develop
the skills to produce an independent research project in
evolutionary biology.

The summer school will take place 14. - 21. June 2025
(Saturday to Saturday) in the Swiss mountain village
Guarda. Faculty includes Rosemary and Peter Grant
(Princeton University), Johanna Mappes (University of
Helsinki), Sebastian Bonhoeffer (ETH-Zurich, Switzer-
land) and Dieter Ebert (Basel University, Switzerland;
organizer).

The course is intended for master students and early
PhD students with a keen interest in evolutionary biol-
ogy.

Web page with all details: [https://tb.ethz.ch/-
education/guarda.html](https://tb.ethz.ch/-education/guarda.html) Application is open now. Dead-
line is the 15. January 2025.

Please communicate this information to interested stu-
dents.

With best wishes, dieter

Dieter Ebert University of Basel, Department of En-
vironmental Sciences, Zoology Vesalgasse 1, CH-4051
Basel, Switzerland <http://evolution.unibas.ch/> Email:
dieter.ebert@unibas.ch

Dieter Ebert <dieter.ebert@unibas.ch>

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Hybrid UkrainianSchool EvolutionaryBiology

Dear Friends and Colleagues!

It is my pleasure to invite you to the first Ukrainian
School in Evolutionary Biology (USEB), which will take
place in Uzhhorod University from January 27 to 31,
2025. The event is hybrid and working language is
English so international participation online will be pos-
sible and is highly encouraged! Participation online is
free of charge. Primary target audience is high school,
undergraduate, Msc and Phd students, but everyone is
welcome.

More details about the school, speakers and topics can
be found on the website:

To apply you will need to fill the form:

[https://docs.google.com/forms/d/e/-
1FAIpQLSc1wu7VNRoEEMuE.t5wNsURvZvnOOieeVnH9Q52SAGz1b
viewform](https://docs.google.com/forms/d/e/1FAIpQLSc1wu7VNRoEEMuE.t5wNsURvZvnOOieeVnH9Q52SAGz1b/viewform) Application Deadline:

December 31st, 2024

Topics with confirmed speakers [https://-
biology.karazin.ua/useb-speakers.html](https://-biology.karazin.ua/useb-speakers.html): History
of evolutionary biology

Mechanisms of evolution

History of life on Earth and major innovations

Population genetics

Human genomics

Microbiome evolution

Host-symbiont coevolution

Reproductive strategies

Antibiotics resistance evolution

Morphology and evolution

And many more.

The school is organized jointly by V. N. Karazin Kharkiv
National University and Uzhhorod National University
and is supported by European Society for Evolution-
ary Biology as a part of Global Evolutionary Biology
Initiative (GEBI). More information is available on the
website: <https://biology.karazin.ua/useb-evolbiol.html>
On behalf of the organizing committee,

Dr. Oleksandr Maistrenko

Postdoc/Junior scientist,
 Department of Marine Microbiology & Biogeochemistry,
 Royal Netherlands Institute for Sea Research (NIOZ)
 Oleksandr Maistrenko <oleksandr.maistrenko@nioz.nl>
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MBL WoodsHole MolecularEvolution May22-Jun1

The 2025 Workshop on Molecular Evolution at the Marine Biological Laboratory in Woods Hole, MA will be held May 22 to June 1, 2025.

Founded in 1988, the Workshop on Molecular Evolution is the longest-running workshop of its kind. The Workshop is the premier program for integrating the methods, theory, and applications of molecular phylogenetics, statistical genetics, molecular evolution, and related disciplines. Students work closely with internationally recognized scientists, receiving (i) high-level instruction in the principles of molecular evolution and phylogenetics; (ii) advanced training in statistical methods best suited to modern datasets and biological questions concerning species, populations, or infectious diseases; and (iii) hands-on experience with the latest software tools (often from the authors of the programs they are using). The material is delivered via lectures, discussions, and bioinformatic exercises motivated by contemporary topics in molecular evolution. Recently added topics to the course include deep-time phylogenomics, phylodynamics, and comparative methods.

A hallmark of this workshop is the direct interaction between students and field-leading scientists. The workshop serves graduate students, postdocs, and established faculty from around the world seeking to apply the principles of molecular evolution to questions of both basic and applied biological sciences. A priority of this workshop is to foster an environment where students can learn from each other as well from the course faculty. As the course progresses, participants learn how to use the following software and tools to address questions concerning the origins, maintenance, and function of molecular variation: ASTRAL, BEST, FASTA, IQ-TREE, MIGRATE, MAFFT, MP-EST, Open Tree, RAxML, RevBayes, PAML, PAUP*, SNaQ, and SVD Quartets. Students will have the opportunity to work with soft-

ware on their own laptops as well as receive training on how to use the same programs on a computer cluster. In 2025, the confirmed course instructors include Peter Beerli, Joseph Bielawski, Jeremy Brown, Belinda Chang, Scott Edwards, Laura Eme, Mandev Gill, Tracy Heath, John Huelsenbeck, Sungsik Kong, Lacey Knowles, Laura Kubatko, Paul Lewis, Emily Jane McTavish, Claudia Solis-Lemus, David Swofford, Anne Yoder, and Rosana Zenil-Ferguson.

Deadline for applications is January 29, 2025: <https://www.mbl.edu/education/advanced-research-training-courses/course-offerings/workshop-molecular-evolution>

More information on the Workshop is available on the course website: <https://molevolworkshop.github.io>

For further information, please contact Workshop co-Directors: Tracy Heath and Jeremy Brown at moledirector@mbl.edu.

Jeremy M Brown <jembrown@lsu.edu>

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Online BayesianStatisticsInR Mar3-7

Dear all,

registrations are now open for our online course on Bayesian Data Analysis in R, which will take place in March (3rd-7th).

Course website: (<https://www.physalia-courses.org/courses-workshops/course46/>)

This course offers a hands-on introduction to Bayesian data analysis in R, designed to build your confidence in using Bayesian methods for common applications. Through practical examples and exercises, the participants will:

1. have become familiar with the basics of Bayesian inference,
2. be able to fit a range of regression models with several likelihood functions,
3. be able fit several robust models and distributional models,
4. know how to select priors for their models using prior predictive checks,
5. know how to assess the descriptive accuracy of a model using posterior predictive checks, and

6. know how to express their posterior distributions as effect sizes and informative figures.

Who should attend: Beginners and those with intermediate knowledge of Bayesian methods looking to strengthen their skills.

Format: Daily live sessions (2-6 PM Berlin time) with theoretical lectures and interactive coding exercises.

For the full list of our courses and workshops, please visit: (<https://www.physalia-courses.org/courses-workshops/-course46/>)

Best regards, Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR
info@physalia-courses.org mobile: +49 17645230846

“info@physalia-courses.org” <info@physalia-courses.org>

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Online Bioinformatics Jan27-31

Dear all,

if you want to boost your bioinformatics skills, have a look at our online course in January (27-31): (<https://www.physalia-courses.org/courses-workshops/unix/>)

This online course is designed to help you master essential computational skills needed for modern bioinformatics. With hands-on sessions and expert guidance, you'll learn to process biological data, including next-generation sequencing (NGS) data, using powerful Unix commands and shell scripting.

Why Attend? Gain foundational skills in Unix and shell scripting, no prior experience needed. Learn how to automate bioinformatics pipelines for reproducibility. Explore practical applications tailored to biological data analysis. Who Should Attend? This course is ideal for biologists and bioinformaticians who: Have little or no experience with Unix or shell scripting. Want to process and analyze large biological datasets. Seek to improve efficiency and reproducibility in their workflows. Learning Outcomes: Master key Unix commands and file management. Write and execute shell scripts for automation. Efficiently process large datasets and manage system resources. For the full list of our courses and workshops, please visit: (<https://www.physalia-courses.org/courses-workshops/>)

Best regards and happy holidays, Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR
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Online GenomicsFoodTraceability Feb25-28

Dear all,

We're excited to announce our upcoming online course: Food Traceability Using Genomic Tools (25-28 February 2025).

Course website: <https://www.physalia-courses.org/courses-workshops/food-traceability/> With seafood and wildlife being some of the most traded commodities globally (valued at \$676 billion annually), ensuring traceability and authenticity is more critical than ever. This course's core focus will be introducing genomic tools used for seafood traceability. The course will introduce targeted techniques such as Sanger sequencing and quantitative PCR, then advance to the latest sequencing technologies (Illumina and Nanopore), bioinformatic analysis, and their practical applications in ensuring the integrity and safety of food products.

Key highlights include:

- Practical sessions on DNA metabarcoding and bioinformatics
- Handling real-world data for species identification and point-of- origin testing
- Insights into the ethical and regulatory landscape of food traceability

Who Should Attend?

Researchers, food safety officers, quality control professionals, and anyone in the food industry keen on modern traceability tools.

For the full list of our courses and workshops, please visit: <https://www.physalia-courses.org/courses-workshops/>
Best regards, Carlo

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Online GSEA Mar3-6

Dear all,

registrations are now open for the online course Gene set enrichment analysis in R/Bioconductor.

Dates: 3-6 March

Course website: (<https://www.physalia-courses.org/courses-workshops/gse-in-r/>)

In this course, we will teach the use of popular GSEA tools, both for online-based tools and those implemented as R packages. We will give a detailed introduction on a variety of methods of GSEA analysis, including overrepresentation analysis, univariate methods, multivariate methods, as well as extensions of GSEA analysis, such as network-based GSEA, and single-sample GSEA. Finally, you will also learn downstream processing of GSEA results, including efficiently visualizing the massive GSEA results, clustering, and simplifying GSEA results via various methods. In the course, we will cover some other topics that are tightly related to GSEA analysis, such as multiple hypothesis testing. You will also learn how to implement GSEA methods completely from scratch in R.

For the full list of our courses and workshops, please visit: (<https://www.physalia-courses.org/courses-workshops/gse-in-r/>)

Best regards and Happy New Year, Carlo

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Online IntroBayesianAnalyses Feb17-21

Dear colleagues,

Registration is open for the 6th edition of the course “Introduction to Bayesian Inference in Practice”.

Understanding the basis of Bayesian analysis is key to being able to develop Phylogenetic Bayesian analysis.

This course will be held live online (synchronously). There can be a maximum of 18 participants.

Dates: February 17th-21st, 2025, from 13:00 to 17:00 (Madrid time zone).

Instructors: Dr. Daniele Silvestro (University of Gothenburg, Sweden) and Tobias Andermann (University of Gothenburg, Sweden)

Course Overview:

This course assumes that the easiest way to understand the principles of Bayesian inference and the functioning of the main algorithms is to implement these methods yourself.

The instructor will outline the relevant concepts and basic theory, but the focus of the course will be to learn how to do Bayesian inference in practice. He will show how to implement the most common algorithms to estimate parameters based on posterior probabilities, such as Markov Chain Monte Carlo samplers, and how to build hierarchical models.

He will also discuss hypothesis testing using Bayes factors and Bayesian variable selection.

The course will take a learn-by-doing approach, in which participants will implement their own MCMCs using R or Python (templates for both languages will be provided).

After completion of the course, the participants will have gained a better understanding of how the main Bayesian methods implemented in many programs used in biological research work. Participants will also learn how to model at least basic problems using Bayesian statistics and how to implement the necessary algorithms to solve them.

Participants are expected to have some knowledge of R or Python (each can choose their preferred language), but they will be guided “line-by-line” in writing their

script. The aim is that, by the end of the week, each participant will have written their own MCMC - from scratch!

Participants are encouraged to bring own datasets and questions and we will (try to) figure them out during the course and implement scripts to analyze them in a Bayesian framework.

More information and registration at <https://www.transmittingscience.com/courses/statistics-and-bioinformatics/introduction-bayesian-inference-practice/> or writing courses@transmittingscience.com

Best wishes

Sole

Soledad De Esteban-Trivigno, PhD Director Transmitting Science www.transmittingscience.com/courses Twitter @SoleDeEsteban Orcid: <https://orcid.org/0000-0002-2049-0890> Under the provisions of current regulations on the protection of personal data, Regulation (EU) 2016/679 of 27 April 2016 (GDPR), we inform you that personal data and email address, collected from the data subject will be used by TRANSMITTING SCIENCE SL to manage communications through email and properly manage the professional relationship with you. The data are obtained based on a contractual relationship or the legitimate interest of the Responsible, likewise the data will be kept as long as there is a mutual interest for it. The data will not be communicated to third parties, except for legal obligations. We inform you that you can request detailed information on the processing as well as exercise your rights of access, rectification, portability and deletion of your data and those of limitation and opposition to its treatment by contacting Calle Gardenia, 2 Urb. Can Claramunt de Piera CP: 08784 (Barcelona) or sending an email to info@transmittingscience.com or <http://transmittingscience.com/additional-terms>. If you consider that the processing does not comply with current legislation, you can complain with the supervisory authority at www.aepd.es. Confidentiality. - The content of this communication, as well as that of all the attached documentation, is confidential and is addressed to the addressee. If you are not the recipient, we request that you indicate this to us and do not communicate its contents to third parties, proceeding to its destruction. Disclaimer of liability. - The sending of this communication does not imply any obligation on the part of the sender to control the absence of viruses, worms, Trojan horses and/or any other harmful computer program, and it corresponds to the recipient to have the necessary hardware and software tools to guarantee both the security of its information system and the detection and elimination of harmful computer programs. TRANSMITTING SCIENCE SL shall not

be liable.

Links: — <https://www.transmittingscience.com/instructors/daniele-silvestro/>

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

Online MachineLearning Feb17-21

Dear all,

We're excited to announce our 4th edition of the Introduction to Machine Learning with R course, which will take place online from the 17th to the 21st of February, 2025.

Course website: (<https://www.physalia-courses.org/courses-workshops/course43/>) Why Join This Course? Modern biology generates vast, complex datasets, and machine learning (ML) has become an essential tool for their analysis. This hands-on course introduces you to key ML methods and their application to multi-omics datasets, offering both theoretical insights and practical skills using R. Who Should Attend? This course is perfect for researchers and students seeking an intuitive introduction to machine learning. A foundational understanding of statistics and R is beneficial but not mandatory. Highlights Comprehensive coverage of supervised and unsupervised learning methods. Hands-on exercises with real-world omics datasets. Dedicated time for Q&A and personalized discussions. Course Schedule Daily Sessions: 2-8 PM (Berlin Time) Day 1: Introduction to ML and advanced R data libraries. Day 2: Supervised learning and model selection. Day 3: Overfitting, resampling, and Lasso regression. Day 4: Random Forest, boosting, and unsupervised learning. Day 5: Advanced demos and a final interactive exercise. Teaching Format Each session includes lectures, practical demonstrations, and interactive discussions, ensuring a rich and engaging learning experience.

Best regards, Carlo

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Online Metabarcoding Jan20-Feb14

Virtual Metabarcoding course (Jan 20-Feb 14, 2024)

Metabarcoding is a rapidly evolving method for assessing biodiversity from bulk or environmental samples. It has a wide range of applications: biodiversity monitoring, animal diet assessment, reconstruction of paleo communities, among others. DNA metabarcoding relies on molecular techniques such as PCR and next-generation sequencing, and requires bioinformatics and biostatistics competence to analyze sequencing results. This approach integrates several scientific areas and requires a broad range of skills in addition to the basic knowledge related to the considered research topic. This course will provide an overview of the state of current technology and the various platforms used. It consists of a series of online lectures and research exercises introducing different aspects of metabarcoding and other DNA-based approaches. We will also touch on the suite of bioinformatics tools available for sequence analysis and data interpretation. The four-week course is divided into four units and provides 18 hours of (mostly asynchronous) instructional time.

* Unit 01: Next-Generation Sequencing * Unit 02: Metabarcoding and beyond * Unit 03: Metabarcoding Analytics * Unit 04: Applications/Recent Research

Course Start Date: Monday, January 20, 2025
 Course End Date: Friday, February 14, 2025
 More information and enrolment: <https://courses.opened.uoguelph.ca/-search/publicCourseSearchDetails.do?method=load&courseId=18146&selectedProgramAreaId=16994&selectedProgramStreamId=12732257>
 Dr. Dirk Steinke (he/him) | Associate Director, Analytics - Centre for Biodiversity Genomics - University of Guelph
 Centre for Biodiversity Genomics | University of Guelph
 CBG Room 109 | 50 Stone Road E | Guelph, Ontario | N1G2W1
 519-824-4120 Ext. 53759 | dsteinke@uoguelph.ca | <http://biodiversitygenomics.net>
 Dirk Steinke <dsteinke@uoguelph.ca>

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Online ProteomicMethodsSpeciesId Dec12-18

Dear colleagues,

We are excited to announce the second edition of the course “Proteomic methods for species identification of archaeological and palaeontological materials.”

Dates and schedule: Online live sessions on December 12th, 16th, 18th, 2024. From 14:00 to 18:00 (Madrid time zone).

Instructor: Dr. Michael Buckley [1] (University of Manchester, UK).

This course addresses archaeologists and palaeontologists willing to learn how to identify species from proteomic information.

Programme:

- * Introduction to ancient proteins and reasons for analysing them and the most appropriate biochemical methods to do so, relating to sample type
- * Short introduction on protein structure, evolution, and ongoing investigations in zooarchaeology and palaeobiology
- * Learn the basics of proteomics
- * Introduction to the differences between ionization techniques, mass analysers, and fragmentation methods. * Illustration with worked examples of *de novo* sequencing peptides and probability-based sequence matching.
- * Identifying a species from a peptide mass fingerprint
- * Introduction on how to identify ancient collagen fingerprints and understand the confidence levels for taxonomic assignment * Learn the use of automated tools for identification that include machine learning, and understand their limitations
- * Learn to infer a species through the proteome analysis of an ancient sample
- * Learn how to interpret sequence data from complex samples of unknown species * Identify confidence levels of cross-species sequence interpretations through protein BLAST and the Ensembl Genome Browser
- * Summary
- * Summary of the various techniques’ strengths and weaknesses, assumptions for each approach, some stan-

dard open-source tools available, and alternative tools currently available on R with some worked examples.

More information and registration: <https://www.transmittingscience.com/courses/genetics-and-genomics/palaeoproteomics-and-zooarchaeology-by-mass-spectrometry-zooms/> or writing to courses@transmittingscience.com

Best wishes

Sole

Soledad De Esteban-Trivigno, PhD Director Transmitting Science www.transmittingscience.com/courses Twitter @SoleDeEsteban Orcid: <https://orcid.org/0000-0002-2049-0890> Under the provisions of current regulations on the protection of personal data, Regulation (EU) 2016/679 of 27 April 2016 (GDPR), we inform you that personal data and email address, collected from the data subject will be used by TRANSMITTING SCIENCE SL to manage communications through email and properly manage the professional relationship with you. The data are obtained based on a contractual relationship or the legitimate interest of the Responsible, likewise the data will be kept as long as there is a mutual interest for it. The data will not be communicated to third parties, except for legal obligations. We inform you that you can request detailed information on the processing as well as exercise your rights of access, rectification, portability and deletion of your data and those of limitation and opposition to its treatment by contacting Calle Gardenia, 2 Urb. Can Claramunt de Piera CP: 08784 (Barcelona) or sending an email to info@transmittingscience.com or <http://transmittingscience.com/additional-terms>. If you consider that the processing does not comply with current legislation, you can complain with the supervisory authority at www.aepd.es. Confidentiality. - The content of this communication, as well as that of all the attached documentation, is confidential and is addressed to the addressee. If you are not the recipient, we request that you indicate this to us and do not communicate its contents to third parties, proceeding to its destruction. Disclaimer of liability. - The sending of this communication does not imply any obligation on the part of the sender to control the absence of viruses, worms, Trojan horses and/or any other harmful computer program, and it corresponds to the recipient to have the necessary hardware and software tools to guarantee both the security of its information system and the detection and elimination of harmful computer programs. TRANSMITTING SCIENCE SL shall not be liable.

Links:

[1] <https://www.transmittingscience.com/instructors/>

michael-buckley/ Soledad De Esteban-Trivigno <soledad.esteban@transmittingscience.com>

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Online SpeciesDistributionModelsInR Feb17-21

Dear all,

there are only 3 seats left for our upcoming online course on Species Distribution and Ecological Niche Modelling in R, taking place in February (17-21).

This highly interactive course covers the theory and practice of species distribution models (SDM) and ecological niche models (ENM) in R. Participants will design, build, and evaluate models using R, learning to apply these tools for mapping species distributions and addressing ecological questions.

For more information, please visit: (<https://www.physalia-courses.org/courses-workshops/sdm2/>)

For the full list of our courses and workshops, please visit: (<https://www.physalia-courses.org/courses-workshops/>)

Best regards, Carlo

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Paris PolygenicAdaptation Mar10-14

Second call for applications

—
On behalf of the organizing committee, it is my pleasure to announce the workshop “Polygenic adaptation: from

quantitative genetics to population genomics”, part of the QLife Quantitative Biology Winter School Series.

Topic: Adaptation to novel environments depends on many alleles with largely undetectable fitness effects. With the advance of DNA sequencing technologies, the combination of genome-wide association analyses with genomic prediction methods has become the state-of-the-art approach to link adaptive trait responses to genetic changes at the molecular level. The workshop will introduce students to evolutionary theory and the tools employed to test alternative models of polygenic adaptation. Current advances in detecting polygenic adaptation in experimental and natural populations will be discussed. The course will introduce the participants to the analysis of phenomic and genomic data covering the latest software.

When and where: March 10-14, 2025; Ecole Normale Supérieure, 46 Rue d’Ulm, 75005 Paris - France.

Faculty: Neda BARGHI, Vienna/Ploen; Nicholas BARTON, Vienna; Timothée FLUTRE, Paris; Frédéric GUILLAUME, Helsinki; Susan JOHNSTON, Edinburgh; François MALLARD, Paris Katrina McGUIGAN, Brisbane; Luisa PALLARES, Tübingen; Patrick PHILLIPS, Eugene;— Christian SCHLÄTTERER, Vienna; Bertrand SERVIN, Toulouse; Erik SVENSSON, Lund; Jacqueline SZTEPANACZ, Toronto; Henrique TEOTÂNIO, Paris; Céline TEPLITSKY, Montpellier; Pierre de VILLEMEREUIL, Paris; Ben WÄLFL, Vienna

Organizers: Patrick CHARNAY, Paris; Christian SCHLÄTTERER, Vienna; Henrique TEOTÂNIO, Paris

Format: The course will include introductory and research lectures in the mornings, followed by computer practicals in the afternoons. The evenings will include keynote speaker seminars and poster presentations by the students. Common lunches and dinners with the speakers and instructors will foster informal discussions.

Public: The winter school is limited to 25 participants. It is open to advanced master students, PhD students,— as well as postdocs and junior scientists, with backgrounds in life sciences, physics, computer science or mathematics.

Requirements: Strong interest in evolutionary genetics, and experience in file manipulation under Unix/Linux and Python or R programming.

Apply by January 8, 2025, at : <https://forms.office.com/e/1VySeNcY0Y>. A participation fee of 150 euro includes access to materials, lunches and some dinners Monday to Friday. Please send a CV, a motivation letter and a supporting letter from a supervisor

as a single pdf file with “Qlife Polygenic Adaptation Winter School2025_LASTNAME” as subject header to Aida.Fakhr@curie.fr. Informal inquiries are welcome: teotonio@bio.ens.psl.eu

Additional information including a detailed program at: <https://www.edu.bio.ens.psl.eu/spip.php?article287> Henrique Teotónio Institut de Biologie de l’ENS 46 Rue d’Ulm 75005 Paris, France <https://www.ibens.ens.fr/-?rubrique28> teotonio@bio.ens.psl.eu

Henrique Teotónio <teotonio@bio.ens.psl.eu>

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Poland LandscapeGenomics Jan20-24

Dear all,

We’re thrilled to announce that our Landscape Genomics course is almost fully booked but a few seats are still available! Don’t miss this unique opportunity to explore the cutting-edge intersection of genetics, ecology, and environmental science in an engaging, hands-on learning environment.

Course Details Dates: 20-24 January 2025 Location: Faculty of Biology and Environmental Protection, University of Lodz, Poland Course website: (<https://www.physalia-courses.org/courses-workshops/-course17/>)

This course offers an in-depth introduction to the field, guiding participants through: Obtaining and processing environmental data with Geographic Information Systems (GIS). Studying genetic variation and population structure using R.

Identifying local adaptation signals with state-of-the-art tools like samâada. Planning robust landscape genomics experiments, including sampling design. Interpreting and validating results for evolutionary biology and conservation studies.

For the full list of our courses and workshops, please visit: (<https://www.physalia-courses.org/courses-workshops/-course17/>)

Best regards, Carlo

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Instructions

Instructions: To be added to the EvolDir mailing list please send an email message to Golding@McMaster.CA. At this time provide a binary six letter code that determines which messages will be mailed to you. These are listed in the same order as presented here — Conferences; Graduate Student Positions; Jobs; Other; Post-doctoral positions; WorkshopsCourses. For example to receive the listings that concern conferences and post-doctoral positions this would be 100010. Messages are categorized on the basis of their subject headings. If this subject heading is not successfully parsed, the message will be sent to me at Golding@McMaster.CA. In addition, if it originates from ‘blackballed’ addresses it will be sent to me at Golding@McMaster.CA. These messages will only be read and dealt with when I have time. The code 000000 has all channels turned off and hence gets only a once monthly notification of the availability of a monthly review pdf file.

To be removed from the EvolDir mailing list please send an email message to Golding@McMaster.CA. Note that ‘on vacation’, etc, style messages are automatically filtered and should not be transmitted to the list (I hope), but should you wish to avoid the e-mail’s your code can be temporarily changed to 000000.

To send messages to the EvolDir direct them to the email evoldir@evol.biology.McMaster.CA. Do not include encoded attachments and do not send it as Word files, as HTML files, as L^AT_EX files, Excel files, etc. . . . plain old ASCII will work great and can be read by everyone. Add a subject header that contains the correct category “Conference:, Graduate position:, Job:, Other:, Postdoc:, Workshop:” and then the message stands a better chance of being correctly parsed. Note that the colon is mandatory.

The message will be stored until the middle of the night (local time). At a predetermined time, the collected messages will be captured and then processed by programs and filters. If the message is caught by one of the filters (e.g. a subject header is not correctly formatted) the message will be sent to me at Golding@McMaster.CA and processed later. In either case, please do not expect an instant response.

Afterword

This program is an attempt to automatically process a broad variety of e-mail messages. Most preformatting is collapsed to save space. At the current time, many features may be incorrectly handled and some email messages may be positively mauled. Although this is being produced by L^AT_EX do not try to embed L^AT_EX or T_EX in your message (or other formats) since my program will strip these from the message.