
E v o l D i r

November 1, 2020

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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Marseilles EvolutionaryBiol Registration Oct1

Dear all ,

registrations for the EBM 24 start October 1st 2020 web site <http://aeb.fr> < <https://t.co/x6FwUOF0ve?amp=1> > <https://ebm24.sciencesconf.org> < <https://t.co/pYJNQoCYsr?amp=1> > any questions contact marie-helene.rome@univ-amu.fr all the best Pierre

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

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

NewZealand Phylogenetics Feb9-12

The Interface of Mathematics and Biology The 25th Annual New Zealand Phylogenomics Meeting Tuesday 9th - Friday 12th February, 2021

<https://www.canterbury.ac.nz/engineering/schools/-mathematics-statistics/research/bio/events/akaroa-2021/> Prof. Mike Steel, Director, Biomathematics Research Centre, University of Canterbury, Christchurch, New Zealand <http://www.math.canterbury.ac.nz/~m.steel/> Mike Steel <mike.steel@canterbury.ac.nz>

Online EMPSEB Mar1-4

EMPSEB 26 to be held online:Inviting abstracts

Hello,

Due to the ongoing COVID-19 pandemic, EMPSEB 26 has been rescheduled to the 1st-4th March 2021 and will be held online. There are roughly 37 places still available for the conference and we are inviting the submission of new abstracts until the 15th December 2020. Send abstracts to empseb26@gmail.com.

More details available via our website EMPSEB26

Cheers, The EMPSEB 26 organization committee

—
On behalf of the EMPSEB XXVI organizing committee.
EMPSEB XXVI <empseb26@gmail.com>

Online EpigeneticInMarineBiology Oct5-9

Dear colleagues,

I come to you regarding the conference EPIgenetic in MARine biology congress which was initially planed in May in Montpellier, France, and postponed to October 6th to 9th 2020 (2:30 PM - 6:00 PM, Paris Time, France). We have planned a free of charge online conference instead of a real meeting. The conference will enable, live presentation, storage of the conferences (replay), confidentiality of the presentation (only transmitted to registered participants), interactive forum and chat, networking page. The registration is free of charge but compulsory (place limited for the live).

The program is available here http://epimar.univ-perp.fr/?page_id=265 and on the webinar website after registration.

If you wish to join the event, please click on the link : <https://livee.io/epimar-gdr3e>

Hoping to see you there,

Best regards

The organizing committee

jvidaldu <Jeremie.Vidal.Dupiol@ifremer.fr>

Online EvolEcol Oct7

Dear EvoDir,

Join us for the next week of our popular online seminar series in Evolution and Ecology.

—

Wed 7 Oct

Prof. Paul Turner (Dept. of Ecology & Evolutionary Biology, Yale University, USA)

“Leveraging evolutionary trade-offs and phage selection pressure to reduce bacterial pathogenicity”

—

When: 5-6PM BST / 9-10AM PDT, Wednesdays

Where: talks live-streamed to our YouTube channel <https://www.youtube.com/channel/UCMsYvoHLNVm4rbcTLj162zQ> , post your questions for our speakers via Slack

Publicity: upcoming talks promoted on Slack & Twitter @EvoEcoSeminars (<https://twitter.com/EvoEcoSeminars>)

How to join: our Slack 'Evolution and Ecology Seminars' here https://join.slack.com/t/evolutionecol-x154980/-shared_invite/zt-ev4fe0io-M7B~D6p74blV_ZRcDtmAcg

Please follow our Twitter feed and join the Slack group for details of future upcoming talks.

Hope that you can join us. Feel free to circulate to anyone who may be interested.

Many thanks,

Dr. Elizabeth Duxbury Dr. Andreas Sutter Dr. Iulia Darolti Dr. Wouter van der Bijl

— Dr. Elizabeth Duxbury

Senior Postdoctoral Research Associate Prof. Alexei Maklakov Group School of Biological Sciences University of East Anglia Norwich Research Park UK

“E.Duxbury@uea.ac.uk” <E.Duxbury@uea.ac.uk>

Online EvolutionCancer Oct14-16

We are organizing an online conference (14 Oct-16Oct) on the subject of Cancer and Evolution.

<https://cancerevolution.org/> Henry Heng, Ph.D. Professor Center for Molecular Medicine and Genetics; Pathology Department; Wayne State University School of Medicine 540 E. Canfield St. 3226 Scott Hall Detroit, MI 48201 U.S.A.

Tel: 313-577-9544 Email: hheng@med.wayne.edu * hhqheng@gmail.com Web: <http://genetics.wayne.edu/heng/lab/Home.html> Book: Genome Chaos: Rethinking Genetics, Evolution, and Molecular Medicine <https://www.elsevier.com/books/genome-chaos/heng/978-0-12-813635-5> Book: Debating Cancer: The paradox of cancer research <http://www.worldscientific.com/worldscibooks/10.1142/8879#t=aboutBook> Co-Editor-in-Chief of Molecular Cytogenetics (BioMed Central - Springer) <http://www.molecularcytogenetics.org/> Hong-Qiang Heng <hheng@med.wayne.edu>

Online EvolutionEcol Oct21

Dear EvolDir,

Join us for the next week of our popular online seminar series in Evolution and Ecology.

—

Wed 21 Oct

Prof. Abderrahman Khila (Institute of Functional Genomics, University of Lyon, France)

Title: TBC

—

When: 5-6PM BST / 9-10AM PDT, Wednesdays

Where: talks live-streamed to our YouTube channel <https://www.youtube.com/channel/UCMsYvoHLNVm4rbcTLj162zQ>, post your questions for our speakers via Slack

Publicity: upcoming talks promoted on Slack & Twitter @EvoEcoSeminars (<https://twitter.com/EvoEcoSeminars>) How to join: our Slack 'Evolution and Ecology Seminars' here https://join.slack.com/t/evolutionecol-xl54980/shared_invite/zt-ev4fe0io-M7B~D6p74blV.ZRcDtmAcg Please follow our Twitter feed and join the Slack group for details of future upcoming talks.

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Senior Postdoctoral Research Associate Prof. Alexei Maklakov Group School of Biological Sciences University of East Anglia Norwich Research Park UK

“E.Duxbury@uea.ac.uk” <E.Duxbury@uea.ac.uk>

Online EvolutionEcology Oct14

Dear EvolDir,

Join us for the next week of our popular online seminar series in Evolution and Ecology.

—

Wed 14 Oct

Prof. Erik Svensson (Dept. of Biology, Lund University, Sweden)

“Bridging micro- and macroevolution in an old insect order”

—

When: 5-6PM BST / 9-10AM PDT, Wednesdays

Where: talks live-streamed to our YouTube channel <https://www.youtube.com/channel/UCMsYvoHLNVm4rbcTLj162zQ>, post your questions for our speakers via Slack

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Senior Postdoctoral Research Associate Prof. Alexei Maklakov Group School of Biological Sciences University of East Anglia Norwich Research Park UK

“Elizabeth Duxbury (BIO - Staff)” <E.Duxbury@uea.ac.uk>

Online EvolutionEcology Oct28

Dear EvolDir,

Join us for the next week of our popular online seminar series in Evolution and Ecology.

—
Wed 28 Oct

Prof. Daniel Bolnick (Dept. of Ecology & Evolutionary Biology, University of Connecticut, USA)

“A coevolutionary pyrrhic victory: gain and loss of a costly immune defense”

—
When: ***4PM GMT*** / 9-10AM PDT, Wednesdays.
NOTE TIME CHANGE JUST FOR THIS WEEK.

Where: talks live-streamed to our YouTube channel <https://www.youtube.com/channel/UCMsYvoHLNVm4rbcTLj162zQ>, post your questions for our speakers via Slack

Publicity: upcoming talks promoted on Slack & Twitter @EvoEcoSeminars (<https://twitter.com/EvoEcoSeminars>) How to join: our Slack 'Evolution and Ecology Seminars' here https://join.slack.com/t/evolutionecol-x154980/shared_invite/zt-ev4fe0io-M7B~D6p74blV_ZRcDtmAcg Please follow our Twitter feed and join the Slack group for details of future upcoming talks.

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Senior Postdoctoral Research Associate

Prof. Alexei Maklakov Group School of Biological Sciences University of East Anglia Norwich Research Park UK

“Elizabeth Duxbury (BIO - Staff)”
<E.Duxbury@uea.ac.uk>

Online FungiEvolution Nov6

Curious. Cutting-edge. Community.

We hope you can join us for our next Ecology & Evolution Seminar < <https://sciences.adelaide.edu.au/biological-sciences/engagement-industry/seminars-ecology-evolution-series> >, the last in our Spring Series on Environmental Diversity. Hosted by The University of Adelaide.

Zoom in for our free, monthly, first Friday's seminar: exciting, cutting-edge science by PhD Candidate, Jennie Weinhammer, and esteemed industry partner from the SA Herbarium, Pam Catchside.

Friday 6 November

3-4 pm via Zoom (local Adelaide time, ACST - UTC +9:30)

Recording will be available online < <https://sciences.adelaide.edu.au/biological-sciences/engagement-industry/seminars-ecology-evolution-series> > the week after live seminar.

Jennie Weinhammer < <https://researchers.adelaide.edu.au/profile/jennie.weinhammer> >

Masters candidate - School of Biological Sciences Supervisor: Professor Bertram Ostendorf

Can we save the world's 30,000 threatened species? Not without solving conservation's money problem. Jennie will introduce her project to identify increases in conservation funding throughout history, using the United States as a case study. Jennie will be presenting her initial Masters seminar, 'The history of public and private conservation funding in the United States'.

Pam Catchside < https://www.environment.sa.gov.au/Knowledge.Bank/Science_and_research/State_Herbarium/Our_people/Pam.Catcheside >

Honorary Research Associate - State Herbarium

One of our most esteemed industry partners, Pam Catchside, will present Fungi - the quiet achievers. How they are changing the world.

As an Honorary Research Associate for the State Herbarium and Senior Australian of the Year 2020 Finalist, Pam has been collecting and documenting the larger fungi of South Australia for more than 20 years. Par-

ticular interests are the disc fungi (Ascomycetes), fungi that fruit after fire and the fungi of Kangaroo Island.

Register here < <https://sciences.adelaide.edu.au/events/list/2020/09/ecology-and-evolution-series-spring#friday-november-6> > for the zoom link. Please spread the word to everyone who might like to join us.

See you there!

Bowie and Jasmin

Jasmin Packer PhD

Co-Convenor | Ecology & Evolution Seminar Series Research Fellow Environment Institute | The University of Adelaide Adelaide, Australia.

j.packer@adelaide.edu.au

Online Marine Evolution Nov23-25

Dear colleagues,

We would like to remind you about the upcoming deadlines for abstract submission and registration for the First Italian Congress on Marine Evolution (Primo Congresso Italiano di Evoluzione Marina), EVOLMAR2020. The conference is organized by the Zoological Station Anton Dohrn, Naples (SZN) and the Italian Society for Evolutionary Biology (SIBE-ISEB), and will take place in an entirely virtual format on the 23rd-25th of November 2020.

The meeting will feature a combination of invited keynotes, contributed talks and posters around 4 thematic areas: macroevolution, populations and species, adaptation, biodiversity.

We strongly encourage participation by students and junior researchers, who are invited to apply for a number of prizes and awards. There will also be a photo contest with prizes for the best photos depicting aspects of marine evolution.

Conference talks can be in English or Italian (English strongly encouraged), posters have to be prepared in English.

Deadline for abstract submission is October 4th, for registration October 30th. In order to encourage participation, and thanks to the support of many dedicated sponsors, we have been able to keep the registration fee to a minimum (only 10 euros).

Additional information is available on the con-

ference website (<https://www.evolmar.it/>); on the Twitter (<https://twitter.com/evolmar2020>), Facebook (<https://www.facebook.com/EVOLMAR2020>) and Instagram (<https://www.instagram.com/evolmar2020/>) accounts; or by contacting the congress secretariat: [congress\[at\]evolmar.it](mailto:congress[at]evolmar.it)

The EvolMar2020 Organizing Committee

Francesco Santini <francesco.santini@utoronto.ca>

Online Metabarcoding/Metagenomics Dec9-11

TiBE 2020 | METABARCODING AND METAGENOMICS

>From 9 -11 Dec 2020, we are hosting TiBE2020 online. This is the 10th edition of Trends in Biodiversity and Evolution conference, CIBIO-InBIO's annual scientific event, that this year will be on "Metabarcoding and Metagenomics".

The event takes place on a virtual platform that allows live streaming, poster visualization and networking. 3 keynote speakers are confirmed: Agnès Bouchez, INRAE, France; Tyler Kartzinell, Brown University, USA and Mike Schwartz, National Genomics Center for Wildlife and Fish Conservation, USA.

Abstract submission is open until November 8th, and registration for attendance closes on November 20th. More information and registration forms can be found on <https://cibio.up.pt/tibe/details/tibe2020> Science Communication and Outreach Office

CIBIO - Research Center in Biodiversity & Genetic Resources / InBIO Associate Laboratory - University of Porto

Campus Vairão

Rua Padre Armando Quintas, 7 4485-661 Vairão | Portugal < <https://cibio.up.pt/> > Website | < https://twitter.com/CIBIO_InBIO > Twitter | < <https://www.facebook.com/cibio.inbio/> > Facebook

CIBIO-InBIO Divulgação

UAdelaide Evolution Oct2

Curious. Cutting-edge. Community.

We hope you can join us for our Ecology & Evolution Seminar < <https://sciences.adelaide.edu.au/biological-sciences/engagement-industry/seminars-ecology-evolution-series> > this Friday, the second in our Spring Series on Environmental Diversity. Hosted by The University of Adelaide.

Register to receive Zoom link to join live here <https://sciences.adelaide.edu.au/events/list/2020/-09/ecology-and-evolution-series-spring> (register at bottom of page), Recording will be available online < <https://sciences.adelaide.edu.au/biological-sciences/engagement-industry/seminars-ecology-evolution-series> > the week after the live seminar.

Zoom in for our free, monthly, first Friday's seminar: exciting, cutting-edge science by two of our fabulous PhD Candidates, Vinuri Silva and Sophie Dolling.

Friday 2 October

3-4 pm via Zoom (local Adelaide time, ACST - UTC +9:30)

Recording will be available online < <https://sciences.adelaide.edu.au/biological-sciences/engagement-industry/seminars-ecology-evolution-series> > the week after live seminar.

Vinuri Silva < <https://researchers.adelaide.edu.au/profile/vinuri.silva> >

PhD candidate - School of Biological Sciences Supervisor: Professor Bronwyn Gillanders < <https://researchers.adelaide.edu.au/profile/bronwyn.gillanders> >

Plastic is one of the greatest threats our oceans are facing, with fish being predicted to be outweighed by plastic by 2050. Vinuri's research focuses on the diverse yet unique group of marine microbes colonising marine plastic, also referred to as the 'Plastisphere'. She will present her initial PhD seminar titled, 'The hidden inhabitants of oceanic plastic'.

Sophie Dolling < <https://researchers.adelaide.edu.au/profile/sophie.dolling> >

PhD candidate - School of Biological Sciences Supervisor: Professor Bronwyn Gillanders < <https://researchers.adelaide.edu.au/profile/bronwyn.gillanders> > | Dr Mike Williams < https://www.researchgate.net/profile/Mike_Williams7 >

Sophie is a multidisciplinary researcher intrigued by the effects of pollution on marine environments and the industries that rely on them. She uses analytical chemistry to answer ecological questions, like the potential for plastics to be a vector for chemical pollution, and to better understand the impacts of plastic pollution on our marine environments.

Please spread the word to everyone who might like to join us.

See you there!

Bowie and Jasmin

Matt Bowie

School of Biological Sciences THE UNIVERSITY OF ADELAIDE Room 3.11 Oliphant Building | North Terrace Campus Co-convenor | Ecology & Evolution Seminar series < <https://sciences.adelaide.edu.au/biological-sciences/engagement-industry/seminars-ecology-evolution-series> > (FREE & online first Friday of the month) Zoom/E: matthew.bowie@adelaide.edu.au M: +61 450 034 646 W: +618 8313 2796

Check out my recent podcast

matthew.bowie@adelaide.edu.au

GradStudentPositions

AuburnU ButterflyEvo	8 26
BinghamtonU EvolutionaryBiol	9 UAlberta HostParasiteBehaviour
Donana AvianEvolution	10 UArkansas EvoGenetics
Durham Endosymbiosis	10 UBritishColumbia EvolutionaryEcol
HongKong MarineAcclimation	11 UCentralFlorida PlantEvoEco
ImperialC London InsectAdaptation	12 UColorado Denver EvolutionaryPhysiology
ImperialC London PalmBiodiversity	12 UEastAnglia GenomicsMicroAlgae
INRA France 2 PlantAphidAdaptation	13 UExeter AnimalBehaviour
INRA Moulon 3 Adaptation	14 UExeter PaternalEffectsBirds
JagiellonianU ThermalAdaptation	15 UFlorida EvolutionaryAnthropology
Madrid SpongeAnnelidEvolution	16 UHull BeeNutritionalEcolGenomics
MiamiU PlantQuantitativeGenetics	17 UIdaho ComparativeGenomics
MichiganStateU FishEvoDevoGeno	18 UKonstanz DaphniaEvolution
MichiganTechU PlantEvolution	19 UKonstanz PredatorPreyCoevolution
MississippiStateU PlantEvoEco	20 UMaine EvolutionaryInformatics
NMNS Madrid ProtamineEvolution	20 UMunich EvolutionaryEpigenetics
Norwich EI 4 EvolutionaryBiol	21 UnitedArabEmiratesU PlantFungalInteractions
SUNY Binghamton ClimateAdaptation	22 UNotreDame Evolution Ecology Environment
Taipei Taiwan EvolGenomics	22 UOldenburg HerbariumGenomics
TexasAM GenomicsHybridBirds	23 UPittsburgh EvolutionaryBiol
TexasAM HostParasiteGenomics	24 USussex Southampton BacterialSexualReproduction
TexasChristianU SalmonPopulationGenomics	24 UtahStateU EcoLandscapeGenomics
TrinityC Dublin MolecularEvolutionaryGenetics	24 UZurich PlantEvolution 2
UAkureyri Iceland PtarmiganGenomics	25 WilliamMaryU PlantConservation
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AuburnU ButterflyEvo

The Counterman lab at Auburn University is recruiting! We're looking for Ph.D. students interested in evolutionary development or evolutionary genomics to join our research team!

Currently funded research projects in the lab focus on the evolution of adaptive variation and plasticity in butterfly wing color patterns. We are particularly recruiting students interested in studying (1) the developmental pathways involved in structural coloration, or (2) the genomic changes involved in the evolution of wing color patterns. Our projects are "open-ended", and students will have the flexibility and funding to develop their own research directions during their PhD.

The lab recently moved to Auburn University and joined a vibrant group of faculty with research strengths in

evolution, development, and genomics. The Department of Biological Sciences hosts an excellent graduate program in biology, with over 100 graduate students, weekly student seminar series, and an active graduate student association. PhD students will be supported by Teaching Assistantships, with Research Assistantships available for summer months.

The lab has a strong history of collaboration, and students will have opportunities to visit and work closely with colleagues here at Auburn University (Ryan Range), the University of Puerto Rico (Riccardo Papa), George Washington University (Arnaud Martin), and the Smithsonian Tropical Research Institute in Panama (Owen McMillan).

More information on the Counterman lab can be found at the lab website: (www.countermanlab.org). The Counterman Lab is an ally, and we encourage students from traditionally under-represented groups (including POC and LGBTQ+) to inquire and apply.

Interested students should contact Brian Counterman

(bac0071@auburn.edu), preferably with a brief description of your research interests and a CV attached as a pdf. For full consideration, completed applications should be submitted by January 15, 2021.

bac0071@auburn.edu

BinghamtonU EvolutionaryBiol

The Department of Biological Sciences at Binghamton University is seeking qualified applicants for admission to our PhD program for the Fall of 2021. Our department of 30 faculty members and >50 PhD students encompasses a wide range of research programs organized around three overlapping foci of Global Change Biology, Genetic & Molecular Interactions, and Infectious Disease. Our strengths in evolution, ecology, and integrative biology span across all three of these research clusters.

Faculty members potentially recruiting new students this year include:

- Anthony Fiumera - ecological genetics and genomics of complex traits (<http://bingweb.binghamton.edu/~afiumera/home.html>)
- Carol Miles - neural basis of behavior and communication in insects (<https://www.binghamton.edu/biology/people/profile.html?id=cmiles>)
- Heather Fiumera - mtDNA and mitonuclear contributions to adaptation and speciation, mitochondrial genetics, yeast genetics (<https://hfiumera.wixsite.com/bubioblcasts>)
- Jay Sobel - genomics of speciation and adaptation in Mimulus and other flowering plants (<http://www.sobel-lab.com/>)
- Jessica Hua - host-parasite interactions, evo-eco toxicology, and phenotypic plasticity in aquatic systems (<https://jhua13.wixsite.com/jhua>)
- Kirsten Prior - community ecology, invasion biology, altered species interactions under global change (www.priorecologylab.com)
- Laura Cook - mechanisms of host/microbe interactions and pathogenicity in gram negative bacteria (<https://www.lauracooklab.com/>)
- Laura Musselman - mechanisms underlying adaptation in Drosophila melanogaster undergoing laboratory selection on high-sugar diet (www.musselmanlab.com)
- Lindsey Swierk - behavioral ecology, sexual selection, and herpetology (<https://lindseyswierk.com/>)
- Peter McKenney - the role of gut microbiome dynamics in determining virulence of pathogens (<https://mckenneylab.org>)
- Tom Powell - speciation and evolutionary responses to climate change in insects including apple maggot (Rhagoletis) flies and gall formers (www.powellevolab.com)
- Weixing Zhu - urban ecology and biogeochemistry (<https://sites.google.com/view/wxzhu/home>)

Our program provides a highly interactive and supportive setting for graduate training. PhD students are funded through a combination of TA positions, RAs, and fellowships, including the university's Clifford D. Clark Diversity Fellowship. Students can take advantage of several interdisciplinary programs on campus, including the Center for Integrated Watershed Studies, the Binghamton Biofilms Research Center, the Center for Collective Dynamics of Complex Systems, Evolutionary Studies Program, and "Transdisciplinary Areas of Excellence" for Data Science, Sustainable Communities, and Health Sciences. Resources include molecular core facilities, an ecological research facility embedded within the University's extensive on campus Nature Preserve (<https://www.binghamton.edu/nature-preserve/index.html>), a 4,000+ sq ft research greenhouse, a living collection of over 1,200 plant species in the E.W. Heir Teaching Greenhouse, and the new acquired Nuthatch Hollow bird sanctuary.

Binghamton University is the top-ranked institution in the SUNY system and is consistently rated as one of the premier public universities in the Northeast. BU is included in the Carnegie Classification system's "very high research activity" (R1) category. Our 930 acre campus is located in the Southern Tier of New York, between the Catskills and Finger Lakes, about a 3 hour drive from NYC. The region features abundant opportunities for outdoor recreation and a very reasonable cost of living.

Prospective students should contact potential advisors before applying. Instructions for official applications can be found on the Binghamton University Graduate School's website - <https://www.binghamton.edu/grad-school/admissions/requirements.html>. GRE scores are not required. To ensure full consideration by our department's graduate committee for our Fall 2021 cohort, all application materials should be submitted by December 15, 2020.

Thomas H. Q. Powell Assistant Professor Department of Biological Sciences Binghamton University PO Box 6000 Binghamton, NY 13902 607-777-4439



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>

Donana AvianEvolution

We are looking for candidates for a 4y PhD student contract to be associated with the project “Chromosomal inversions as a mechanism for sympatric differentiation in quails” (PID2019-108163GB-I00)

Recent genomic studies have shown that chromosomal inversions may play an important role in adaptation, diversification and speciation. Chromosomal inversions protect co-adapted alleles from recombination with maladaptive ones, resulting in combinations of traits that are inherited together, as a single unit, called supergenes. Although theoretical studies suggest that this may be common across the tree of life, extensive genomic data is still scarce for most non-model organisms and it is not clear how often intra-population polymorphisms could be due to genomic inversions. Preliminary data from our research group suggests that one very large chromosomal inversion may be affecting the genome of common quails in the southwest of the Iberian Peninsula and that this could be associated with differences in pigmentation, size and wing shape. The PhD student will study if there is assortative mating between the types that could lead to pre-zygotic isolation, and if there is decreased survival of chromosomal heterozygotes (heterokaryotypes). Further, the student will investigate if differences in phenology or in migratory behavior could contribute to a relative isolation of the chromosomal types.

The PhD student will be part of the Conservation and Evolutionary Genetics group at the Estación Biológica de Doñana (<http://www.consevol.org/>) in Seville. The members of this group use genomic tools and field ecology methods to study the origin and evolution of vertebrate biodiversity at intra- and inter-specific levels, studying species in Europe, Africa, America and Asia. The group has an international spirit and the PhD student will collaborate with researchers at the University of Barcelona and at international institutions. The project will involve the analysis of genomic data using diverse bioinformatic approaches and field surveys and monitoring of quails. Consequently, expertise in these

areas will be valued. A Masters degree or equivalent is required.

For additional information contact the Principal Investigator, Carles Vilà (carles.vila@ebd.csic.es)

– consevol.org

Jennifer Leonard <jleonard@ebd.csic.es>

Durham Endosymbiosis

PhD Opportunity:

Summary: Endosymbiosis is recognised as a fundamental evolutionary innovation that underpins the origins of many unicellular and all multicellular lifeforms (Chomicki et al., 2019). Understanding the biology of such phenomena can shed light on key drivers of inter-species cooperation and provide an important window into early origins of cellular life on the planet. The PhD student will link to a recently funded project to deploy new tools: single cell genomics and transcriptomics, as well as metabolomics; to explore a unique and poorly understood endosymbiosis involving an emergent disease agent of major economic importance. Supported by a world class supervisory team (Prof. Mike Barrett, Dr. Martin Llewellyn, Wellcome Trust Centre for Integrative Parasitology, Glasgow; Dr. Guillaume Chimocki, Life Sciences, Durham) and a range in international collaborators (Prof. John Archibald, Dalhousie University, Canada; Dr. Neil Ruane, Marine Institute, Ireland), the student will have the opportunity to develop skills at the cutting edge of genomics and molecular biology, undertake training at international centres of excellence in parasitology and evolutionary biology in the UK and North America, and engage in marine biological fieldwork on the west coast of Ireland and Scotland. Finally, this project has strong links with aquaculture industry via project partners Scottish Sea Farms (SSF, Dr. Ralph Bickerdike) and the student will also get valuable experience working alongside industry.

Secondary endosymbiosis: The phenomenon in which eukaryotic organisms engulf other eukaryotes is termed ‘secondary endosymbiosis’. Secondary endosymbiosis underpins the evolution of many eukaryotic phototrophs and is thought to have involved the engulfment of an ancestral eukaryotic rhodophyte (Oborník 2018). The number of times this has occurred in evolutionary history is a moot point. However, it is clear that rhodophyte-origin plastids play a key role in their host cell’s biology.

In some cases, the symbiont has lost the ability to photosynthesize, which leaves them a relic non-photosynthetic plastid in a secondarily heterotrophic cell. This is the case for the apicomplexans, which include the causative agents of toxoplasmosis and malaria. The basis of ongoing metabolic dependency is not always clear, however some conserved functions across plastids belonging to different apicomplexan lineages include isoprenoid (IPP and DMAPP), tetrapyrrole, and fatty acid biosynthesis (JanouÅkovec et al. 2015).

The study system: *Paramoeba perurans* causes amoebic gill disease (AGD) and is a major pathogen in salmonid aquaculture, causing 400 million in losses per annum world-wide. There are currently no drugs available to treat AGD. *P. perurans* has a unique cellular biology that can be readily exploited given the right tools. Enclosed within its cytoplasm is a bizarre endosymbiont - Perkinsela. Genomic sequence data suggest that the basic physiology of this endosymbiont has many of the same biochemical features as found in kinetoplastid pathogens of man and domestic livestock (e.g. Sleeping sickness, Leishmaniasis and Chagas disease).

The endosymbiosis between *P. perurans* and Perkinsela is unique among eukaryotes because it does not involve an originally photosynthetic symbiont. Prior investigations have established interdependence between the kinetoplastid and amoeba based on predicted gene content and ontogeny in the related *Parameoba pemaquidensis* (Tanifuji et al. 2017).

This studentship has three major aims:

Aim 1: Understand the molecular basis of the obligate dependence between *P. perurans* and Perkinsela. The student will use genome sequencing (long read technologies jointly with illumina short reads for polishing), single-cell transcriptomics as well as metabolomics to dissect the molecular basis of the symbiosis. Specific drug knock outs jointly with transcriptomic analysis will allow to functionally test metabolic dependences.

Aim 2: Undertake rational Amoebic gill disease (AGD) drug discovery. A detailed understanding of dependences in the between *P. perurans* and Perkinsela symbiosis will provide a window to test drugs efficient on AGD. In collaboration with the Wellcome Trust Centre for Intergrative Parasitology, the student will test drugs targeting metabolic dependences of *P. perurans*. Ultimately trials will be performed in fish farms with SSF.

Aim 3: Trace the evolution of this unique endosymbiosis. Using a recent approach (Kwong et al., 2019), we will reconstruct the phylogenetic histories of both the host *P. perurans* and the Perkinsela symbiont clades, relying

on a range of archival environmental samples as well as new marine collections. Using targeted sequence enrichment, we will sequence the genomic regions of the host identified as driving the obligate dependence (Aim 1), and analyses of substitution rates (dn/ds) will inform of their

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HongKong MarineAcclimation

*Acclimation and Adaptation to Environmental Change in Aquatic Organisms *

The Schunter lab is supporting application to well-funded Hong Kong Ph.D. Fellowships or HKU presidential fellowships. Through these schemes, interested candidates can apply for a Ph.D. position in Molecular Ecology in the School of Biological Sciences at the University of Hong Kong (<https://www.hku.hk/>). The University is a long-standing English-speaking institution and ranks as one of the top Universities in Asia.

We are looking for a curious, ambitious and enthusiastic Ph.D. student to take part in a diverse team, working on molecular mechanisms and adaptation to changing environments. *Research topics span from molecular, neuronal, and behavioural impacts of climate change to parental effects and transgenerational acclimation in fishes and other marine organisms (www.celiaschunter.com).* The lab is associated with the Swire Institute of Marine Science, also known as SWIMS (<http://www.swims.hku.hk/>), a beautiful research station in a remote area of the Island of Hong Kong.

The lab combines several disciplines ranging from *marine biology*, *behavior/physiology*, *ecology*, *molecular biology* to *computational biology* and prospective students should be interested in working in a cross-disciplinary environment. Generally, projects start with fieldwork or aquarium experiments with measurements of e.g. behavior or other physiological traits, followed by molecular lab work to extract molecules of interest (e.g. DNA, RNA or proteins). Most projects are based on next-generation sequencing, subsequent bioinformatic analyses, and writeup into scientific articles. The lab

maintains long-standing international collaborations and travel might be required.

Additional requirements:

- Willingness to work in a highly international and collaborative environment - If no previous experience, the student must be eager to learn bioinformatics
- Willingness to work in aquarium systems and/or field-work in a marine environment.

Hong Kong Ph.D. fellowships (HK\$26,600 monthly plus travel allowance) as well the University of Hong Kong Presidential fellowships (includes research money also) are competitive and require high GPAs but come with a range of benefits. You can find more information about these fellowships here: <https://www.gradsch.hku.hk/gradsch/-prospective-students/scholarship-funding-and-fees>. The application deadline is the 1st of December.

Information about the Ph.D. programme, in general, can be found here <https://www.gradsch.hku.hk/gradsch/>

Interested candidates should send their CV, a cover letter summarizing research interests and contact information for two references to Dr. Celia Schunter (schunter@hku.hk) no later than the 20th of October to account for enough time to write a proposal for the application deadline.

Celia Schunter <celiaschunter@gmail.com>

ImperialC London InsectAdaptation

Dear All,

I would like to advertise a PhD opportunity to work in our lab on a project investigating insect pollinator morphological responses to environmental pressures over the past century.

The project will have access to a substantial set of digitised museum specimens that our group has produced and collated over multiple UK natural history museums. The PhD student will undertake geomorphometric analyses to understand how aspects of body morphology has changed across the UK over time, and importantly how this is associated with past environmental change. The results of this project will be able to improve predictions and projections of insect pollinator distributions and functional roles in future landscapes.

Links to our lab's work, please see: <https://->

www.imperial.ac.uk/people/r.gill or <https://-www.gillinsectresearch.com/> The project will be co-supervised by Dr Andres Arce, and in collaboration with other researchers including Prof. Ian Barnes, Prof. Jeff Ollerton and Dr Phillip Fenberg.

The size and value of the dataset means the student will have flexibility to develop questions that meet their interests, will look to develop automated landmarking techniques and will build on the statistical models we have developed.

The PhD position is competitively funded through the Imperial College London President's PhD Scholarships program <https://www.imperial.ac.uk/study/pg/fees-and-funding/scholarships/presidents-phd-scholarships/>. There are no restrictions on nationality.

If you are interested in this PhD position, please could you send me (r.gill@imperial.ac.uk) your CV highlighting your degree marks, your research experience, employment experiences and any awards you may have received. If we feel you are a competitive candidate, we will contact you to provide further details of the project and help in the application.

The initial deadline to send me your CV is 15th October 2020.

The first deadline for the PhD scholarship is 6th November 2020.

Kind Regards,

Dr Richard Gill Senior Lecturer Grand Challenges in Ecosystems & the Environment Silwood Park Imperial College London, UK

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

ImperialC London PalmBiodiversity

PHD OPPORTUNITY Sustainable palm agriculture and biodiversity in Africa: from genomics to economics

Supervisors: Professor Vincent Savolainen (v.savolainen@imperial.ac.uk) <https://-www.imperial.ac.uk/people/v.savolainen;> Dr C M (Tilly) Collins, Centre for Environmental Policy

Department: Department of Life Sciences, Imperial College London Palm agriculture has received criticism due to its link with deforestation, especially in Asia. Savolainen and Collins (supervisors), together with 16 partners across Africa propose that there is an opportu-

nity for sustainable palm futures on the continent (Curr. Res. Environ. Sust. 1:31-34, 2020). Applying interdisciplinary systems thinking and circular production models, food and economic security can be achieved sustainably by (i) increasing resilience and productivity of crop palms in the harsh tropical climates of sub-Saharan Africa; (ii) promoting integrated production of nutritionally valuable insect and fungal protein using palm crop waste; and (iii) promoting the development of palm plantations as biodiverse agroforestry ecosystems.

This PhD project will address components of these ideas and will align with a major collaboration grant to supervisor Savolainen in partnership with the Marc Delorme Coconut Research Station (MDCRS), the world's largest collection of Coconut palm ecotypes and varieties, located in Cote d'Ivoire. This grant addresses (i) above, has a focus on disentangling the genetic architecture underpinning drought tolerance in Coconut palms and is linked to previous work by supervisor Savolainen who identified genes for stress tolerance in Australian island *Howea* palms. The established partnership with MDCRS now provides substantial opportunity for work to expand our understanding of (ii) and (iii).

The PhD proposal here is to use the yield-focussed, experimental planting arrays (variation in genetic background, management regime, plant spacing) already held by the MDCRS to explore the effects of these variables on plantation biodiversity.

The student will design and conduct above-ground (flora & arthropod) and soil (metagenomics with a focus on mycorrhizae) biodiversity surveys and thus evaluate these alternative plantation models from a different perspective, that of intrinsic diversity and its contribution to resilience. This will underpin impactful advice for both intercrop diversity and natural vegetation diversity in palm plantation systems (e.g. Savolainen showed that soil microbes were key to adaptation and coexistence of *Howea* palms).

This will link to development of a model of circular economy for Coconut palms, quantifying the benefits of intercropping and insect and fungal farming from Coconut waste. These latter generate protein and soil conditioning co-products which support local enterprise and economy. This repurposing of 'waste' builds on previous work by co-supervisor Collins and we anticipate to support model parametrisation through MSc project work locally.

The student will thus contribute to a roadmap towards a sustainable palm future and create opportunity to improve palm farming in Africa by explicit inclusion of biodiversity and human benefits to this cropping cycle. This adds to economic and social gain and reduces

environmental destruction while enhancing gross land productivity.

NERC eligibility applies (UK residency)

TO APPLY:

Please send to v.savolainen@imperial.ac.uk no later than 4 January 2021 Your CV Letter of motivation Transcripts Names of two references

Prof. Vincent Savolainen Professor of Organismic Biology

Director of the Grand Challenges in Ecosystems and the Environment Initiative

Imperial College London Department of Life Sciences Silwood Park Campus Buckhurst Road, Ascot, SL5 7PY, UK

Tel +44 (0)20 7594 2374
v.savolainen@imperial.ac.uk skype vincent.savolainen1
www3.imperial.ac.uk/people/v.savolainen

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

INRA France 2 PlantAphidAdaptation

Impact of climate changes on plant-pest interaction: insights from the rosy apple aphid and its apple host in a context of domestication

Amandine Cornille's group (<http://moulon.inra.fr/index.php/fr/equipes/group-leader-amandine-cornille-young-atip-avenir-team>) and Enrique Dapenas's group (<https://be.linkedin.com/in/tim-beli%C3%ABn-4a41164>) are recruiting a Master or a bachelor to investigate the adaptation to climate and plant host of aphid pests.

Lab address?(supervision): SERIDA. rea de Cultivos Hortofrut?colas y Forestales. Apdo 13. 33300 Villaviciosa Asturias (Espa?a).

Supervisors : Amandine Cornille (amandine.cornille@inrae.fr), Enrique Dapenas (edapena@serida.org) and Marcos Minarros (mminarro@serida.org)

Project summary Understanding the extent of local adaptation in natural populations and the mechanisms enabling individuals to adapt to their native environment is a major avenue in evolutionary ecology research. Host-pathogen coevolution is widely seen as a major

driver of local adaptation and has therefore been a study model to dissect the evolutionary processes at work during local adaptation. However, the relative contributions of species interactions (i.e. biotic factor) and abiotic factors to local adaptation are still unclear. Addressing these issues is more than a simple academic exercise. Understanding of local adaptation processes in host-parasite interactions will also help tackling pressing issues, such as the ways in which environmental change alters the emergence of pathogens leading to host extinctions, how to promote sustainability of agroecosystems in the face of emerging crop diseases or in guiding for public health practices as more human pathogens and their vectors expand their ranges.

In this project, we investigate whether local adaptation occurred during the recent rapid colonization of cultivated apple by *Dysaphis plantaginea*, the major aphid pest of cultivated apple orchards, in Europe. We will carry out in April 2020 experimental tests for *D. plantaginea* fitness differences across environments (i.e. host and climate) to investigate whether the aphid is locally adapted to its host and/or climate. This project will generate original results adding to our understanding of how species interactions and abiotic conditions can shape local adaptation.

Master project The project involves the transplant of Belgian, French and Spanish aphid genotypes on Belgian, French and Spanish apple varieties in three locations (Belgian, France and Spain). The candidate will be involved in the assessment of the adaptive capacities at the ecological level of the rosy apple aphid at the SPAIN site located at SERIDA (Villaviciosa, Spain). The project can last two (Bachelor) to three months (Master), and will consist in participating in aphid infestations and rearing on the field, tree measurement, associated statistical analyses, and final report writing.

1) The candidate will participate in the launching of the experiment there during Spring 2021 by transplanting aphids on several apple cultivars and will measure several phenotypic traits. The growth rate of each colony will be measured after 12 days of infestation. Various functional traits which are proxies of the condition of the plant (i.e. chlorophyll content, carbon/nitrogen balance, and flavonol and anthocyanin content measured with the Dualex² pincel) will also be measured.

2) If wanted, He/She will analyze the dataset that will be generated.

Methodology: Statistical analyses (linear and mixed models, R), ecophysiology, phenotypic measurement, rearing, insect biology, field experiment.

Profile preferred for the candidate: Ideally, the candi-

date will have skills in ecology and evolution or at least will show strong interest in these fields. He/She will have to be highly motivated about field experiment, as this one will be intense the first two months. He/she will not necessarily be familiar with apple or aphid model.

Gratification: 550 euros / month

Deadline for submission: The sooner the better, deadline mid-november.

Duration : 3 months, starting date: April 2021, contact Amandine CORNILLE for further discussions.

Supervision??: Amandine CORNILLE - Charg??e de Recherche CNRS CRCN G??n??tique Quantitative et Evolution - Le Moulon Ferme du Moulon 91190, Gif-sur-Yvette, France mail??: amandine.cornille[at]gmail.com
Google Scholar profile : <https://scholar.google.com/citations?user=EqIE2h8AAAAJ&hl=fr>

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INRA Moulon 3 Adaptation

Impact of climate changes on plant-pest interaction: insights from the rosy apple aphid and its apple host in a context of domestication

Amandine Cornille??-s group (<http://moulon.inra.fr/index.php/fr/equipes/group-leader-amandine-cornille-young-atip-avenir-team>) and Tim Belien??-s group (<https://be.linkedin.com/in/tim-beli%C3%ABn-4a41164>) are recruiting a Master student and a bachelor to investigate the adaptation to climate and plant host of aphid pests.

Lab address????(supervision): PC-Fruit pcfruit vzw Fruittuinweg 1 3800 Sint-Truiden Belgium

Supervisors????: Amandine Cornille (amandine.cornille@inrae.fr), Ammar Alhmedi (Ammar.alhmedi@pcfruit.be) and Tim Belien (tim.belien@pcfruit.be)

Project summary Understanding the extent of local adaptation in natural populations and the mechanisms enabling individuals to adapt to their native environment is a major avenue in evolutionary ecology research. Host-pathogen coevolution is widely seen as a major

driver of local adaptation and has therefore been a study model to dissect the evolutionary processes at work during local adaptation. However, the relative contributions of species interactions (i.e. biotic factor) and abiotic factors to local adaptation are still unclear. Addressing these issues is more than a simple academic exercise. Understanding of local adaptation processes in host-parasite interactions will also help tackling pressing issues, such as the ways in which environmental change alters the emergence of pathogens leading to host extinctions, how to promote sustainability of agroecosystems in the face of emerging crop diseases or in guiding for public health practices as more human pathogens and their vectors expand their ranges.

In this project, we investigate whether local adaptation occurred during the recent rapid colonization of cultivated apple by *Dysaphis plantaginea*, the major aphid pest of cultivated apple orchards, in Europe. We will carry out in April 2020 experimental tests for *D. plantaginea* fitness differences across environments (i.e. host and climate) to investigate whether the aphid is locally adapted to its host and/or climate. This project will generate original results adding to our understanding of how species interactions and abiotic conditions can shape local adaptation.

Master project The project involves the transplant of Belgian, French and Spanish aphid genotypes on Belgian, French and Spanish apple varieties in three locations (Belgian, France and Spain). The candidate will be involved in the assessment of the adaptive capacities at the ecological level of the rosy apple aphid at the BELGIAN site located at PCFruit (Sint-Truiden, Belgium). The project can last four (Bachelor) to six months (Master), and will consist in participating in aphid infestations and rearing on the field, tree measurement, associated statistical analyses, and final report writing.

1) The candidate will lead the launching of the experiment there during Spring 2021 by transplanting aphids on several apple cultivars and will measure several phenotypic traits. The growth rate of each colony will be measured after 12 days of infestation. Various functional traits which are proxies of the condition of the plant (i.e. chlorophyll content, carbon/nitrogen balance, and flavonol and anthocyanin content measured with the Dualox ?? pincel) will also be measured.

2) If wanted, He/She will analyze the dataset that will be generated.

Methodology: Statistical analyses (linear and mixed models, R), ecophysiology, phenotypic measurement, rearing, insect biology, field experiment.

Profile preferred for the candidate: Ideally, the candi-

date will have skills in ecology and evolution or at least will show strong interest in these fields. He/She will have to be highly motivated about field experiment, as this one will be intense the first two months. He/she will not necessarily be familiar with apple or aphid model.

Deadline for submission: Mid-november.

Gratification: 550 euros / month

Duration : 3-6 months, starting date: March 2021, contact Amandine CORNILLE for further discussions.

Supervision????: Amandine CORNILLE - Chargée de Recherche CNRS CRCN G ? ?n ? ?tique Quantitative et Evolution - Le Moulon Ferme du Moulon 91190, Gif-sur-Yvette, France mail????: amandine.cornille[at]gmail.com Google Scholar profile : <https://scholar.google.com/citations?user=EqIE2h8AAAAJ&hl=fr> Personal page : <http://moulon.inra.fr/index.php/fr/equipes/dygap/355> Group page????:

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JagiellonianU ThermalAdaptation

We are seeking for a PhD student for a project: When temperature makes them to panic? - the effect of optimal vs. stressful thermal conditions on the repeatability of the performance tests in ectotherms

to be realized in the Institute of Environmental Sciences, Jagiellonian University, Krakow, Poland (http://www.eko.uj.edu.pl/en_GB/).

Principal Investigator: Aleksandra Walczyńska aleksandra.walczynska@uj.edu.pl

Financial conditions: A National Science Centre stipend (4000 PLN/month gross) is available for one student for 2 years, followed by 2 years of the stipend offered through the regular PhD program of the Jagiellonian University.

Requirements:

1) **Formal conditions:**

* MSc degree in a relevant field of life science, such as biology, biotechnology, biological sciences, achieved by

the time of enrollment.

* Admission to the “PhD Biology program” in the PhD School at Jagiellonian University, effective on 3.11.2020 (<https://science.phd.uj.edu.pl/>).

2) Specific merit requirements for the project include:

* strong English language; * experience with the laboratory studies in ecology or physiology; * experience with data processing and statistical analyses; * scientific achievements such as publications or attendance in conferences are considered advantageous.

Scope of work: The PhD student will be involved in a three-stage study in which the mechanisms of response to optimal and stressful thermo-oxygenic conditions will be examined at the organismal and mitochondrial levels. The study will be conducted in the Institute of Environmental Sciences, Jagiellonian University, with *Lecane inermis* rotifer as a model organism. The project includes a three-month visit of a PhD student at the University of Rostock where a student will get acquainted with the cutting-edge methodology of assessing the mitochondrial efficiency under stress, supervised by Professor Inna Sokolova.

The research description: The study focuses on the mechanisms and the evolutionary causes of existence of the temperature-size rule (TSR). According to this very common rule in nature, organisms grow smaller at higher (more favorable) temperature, than in lower (less favorable) temperature. This pattern is puzzling from the evolutionary point of view, because one should expect that in more favorable conditions organisms will grow larger to have more progeny. Unless there is another, accompanying factor, driving the TSR. Currently, it is suggested that the most promising candidate for this factor is oxygen availability. It naturally decreases with increasing temperature, lowering the efficiency of oxygen transport into the mitochondria. Body size is supposed to be a simple consequence of decreasing of cell size; the simplest solution enhancing this effectiveness. We will look for the repeated patterns of response, as those of adaptive significance, in opposition to response variable among individuals, informing about the mismatch between stressful conditions and organismal response to them.

The formal application should be sent to aleksandra.walczynska@uj.edu.pl by 24 October 2020 and should include: 1) A scan of MSc diploma in biology, biotechnology or other relevant; 2) A reference letter from recognized scientist who have a first-hand knowledge of the applicant's skills and past research experience. 3) A Curriculum Vitae (maximum 2 pages) including information on relevant academic achievements,

publications, awards, and relevant experience and training. This document should also include identification information (PESEL number for candidates from Poland, or passport number for candidates from abroad); 4) A motivation letter (maximum 2 pages), explaining how the applicant's background and research interests make them a suitable candidate for the position; 5) Documents confirming the most important academic achievements declared in CV, particularly pdfs of publications; 6) Transcript of grades: diploma supplement, or the official transcript of grades, or another document listing completed courses and grades. Information about grading scale must be included; 7) A short description of studies included in the master thesis (maximum 1 page) and a thesis pdf version.

The applications will be considered by a selection committee according to the regulations about scientific scholarships in research projects financed by the National Science Centre, Poland:

https://www.ncn.gov.pl/sites/default/files/pliki/-uchwaly-rady/2019/uchwala25_2019-zal1_ang.pdf (English)

In case of any questions, please contact aleksandra.walczynska@uj.edu.pl

Aleksandra Walczyńska Instytut Nauk o Źródowisku Uniwersytet Jagielloński Gronostajowa 7

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Madrid SpongeAnnelidEvolution

Hi,

We are offering a PhD position for four years in the context of the project PID2019-105769GB-I00:Evolution of animal sexual reproduction: molecular machinery, microbiome, and macroevolutionary patterns in sponges. The PhD candidate will join a dynamic research group of three researchers: Ana Riesgo (Museo de Ciencias Naturales de Madrid, where the fellow will be based), Patricia Álvarez (Universidad Autónoma de Madrid), y Sergio Taboada (Universidad de Alcalá) and will be able to choose (or not) between the following topics: 1. Molecular machinery for the sex determination and

regulation of the reproduction in sponges and annelids
 2. Effects of microbiome variation on the reproductive ecology of sponges
 The ideal candidate would have: - experience in molecular biology -skills in bioinformatics -diving certificate
 But we are willing to work with whoever shows real interest for our project and is eager to learn.

If you think this position could be a good fit for you, contact us here for further instructions:

Ana Riesgo: anariesgogil@gmail.com, anariesgogil@mncn.csic.es
 Patricia Álvarez: patricia.alvarez@uam.es
 Sergi Taboada: sergiotab@gmail.com

If you are interested, the call is already open (deadline 27th October): <https://www.ciencia.gob.es/portal/site/MICINN/-menuitem.791459a43fdf738d70fd325001432ea0/-?vgnextoid=490233572bed4710VgnVCM1000001d04140aRCRD&vgnnextfmt=115222e988f75610VgnVCM1000001d04140aRCRD&vgnnextfmt=formato2&id3=730233572bed4710VgnVCM1000001d04140a>

(in presentación de la solicitud). I am sorry this is all in Spanish, because actually the position is for the Museo Nacional de Ciencias Naturales in Madrid.

tricia Álvarez: patricia.alvarez@uam.es
 Sergi Taboada: sergiotab@gmail.com

La aplicación ya está abierta (deadline 27 Octubre):

<https://www.ciencia.gob.es/portal/site/MICINN/-menuitem.791459a43fdf738d70fd325001432ea0/-?vgnextoid=490233572bed4710VgnVCM1000001d04140aRCRD&vgnnextfmt=115222e988f75610VgnVCM1000001d04140aRCRD&vgnnextfmt=formato2&id3=730233572bed4710VgnVCM1000001d04140a>

(en presentación de la solicitud). La posiciónes para el Museo Nacional de Ciencias Naturales in Madrid.

Best, Ana

Ramón y Cajal Researcher National Museum of Natural Sciences (CSIC) c/José Gutiérrez Abascal 2 28046 Madrid, Spain

Research Leader (on break) Department of Life Sciences Natural History Museum of London

Cromwell Road London, SW7 5BD

anariesgogil@mncn.csic.es A.Riesgo@nhm.ac.uk anariesgogil@gmail.com <http://www.anariesgogil.com/>
 Ana Riesgo in Researchgate

Ana Riesgo <anariesgogil@gmail.com>

Ofrecemos una FPI en el contexto del proyecto PID2019-105769GB-I00:EVOLUCION DE LA REPRODUCCION SEXUAL ANIMAL: MAQUINARIA GENOMICA,

MICROBIOMA Y PATRONES MACROEVOLUTIVOS EN ESPONJAS. El doctorando podrá incorporarse a un grupo compuesto por tres investigadores: Ana Riesgo (Museo de Ciencias Naturales de Madrid, donde estará asociada la beca), Patricia Álvarez (Universidad Autónoma de Madrid), y Sergio Taboada (Universidad de Alcalá) y desarrollar uno o los dos siguientes temas:
 1. Maquinaria molecular para la determinación y regulación sexual en esponjas y anélidos
 2. Influencia del microbioma sobre la ecología reproductiva de las esponjas
 El candidato ideal que buscamos tendría: -experiencia en biología molecular -experiencia con pipelines bioinformáticos -carnet de buceo Pero aceptamos todas las solicitudes de gente con ganas de aprender e interés por la biología

reproductiva de los animales. La beca ofrecida es una beca FPI del Ministerio por cuatro años, con posibilidad de estancias en el extranjero (las cuales aconsejamos enormemente).

Si crees que este proyecto puede ser interesante para tu carrera, no dudes en contactarnos: Ana Riesgo: anariesgogil@gmail.com, anariesgogil@mncn.csic.es Pa-

MiamiU PlantQuantitativeGenetics

The Baker Lab (<https://rlbakerlab.com>) in the Biology Department at Miami University in Ohio is recruiting highly motivated graduate students (M.S. or Ph.D.;;) to study developmental genetics for sustainable agriculture in crop systems.

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

Successful applicants will have tuition waived and Teaching Assistantships are guaranteed throughout graduate studies (2 years for M.S. or 4-6 years for Ph.D.). Additional Graduate Student Achievement Awards and Diversity Enhancement Pathway awards offer opportunities for Research Assistantships for eligible applicants.

Interested applicants should contact Dr. Rob Baker

at robert.baker@miamioh.edu. Applicants will need to submit a personal statement, CV, 3 letters of recommendation, proof English proficiency (if applicable), and baccalaureate transcripts via <http://miamioh.edu/graduate-school/admission/>. Students may choose among degrees in Botany, Biology, Ecology Evolution and Environmental Biology (EEEB), or Cellular Molecular and Structural Biology (CMSB) depending on their specific interests. Only CMSB requires GREs.

Miami University is located in Oxford, Ohio. Oxford has been rated the nation's #1 college town while still offering an affordable cost of living. Oxford is approximately one hour from both Cincinnati and Dayton, and two hours from Columbus. Living in Oxford will give you access to a number of exciting opportunities such as weekly farmer's markets, summer concerts, performing arts, sports, museums, lectures, and special events. Nearby Hueston Woods State Park offers 3,000 acres of outdoor recreation including hiking, fishing, canoeing, mountain biking, and fossil hunting.

-Rob Baker

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

Miami EEEB & CMSB graduate program affiliate

Email: robert.baker@miamioh.edu URL: <https://rlbakerlab.com> Rob Baker <bakerr2@miamioh.edu>

MichiganStateU FishEvoDevoGeno

PhD Positions in Fish Evolutionary Developmental Genomics The Fish Evo Devo Geno Lab (PI: Ingo Braasch) at Michigan State University is recruiting highly motivated PhD students interested in working on the genomic basis of vertebrate evolution and development to start in Summer/Fall 2021.

The Braasch Lab focuses on genomic and developmental changes that contribute to major transitions during the course of vertebrate evolution and studies evolutionary novelties at the levels of genome structure, gene family evolution, and gene regulation. We combine sequencing and comparative analyses of fish genomes with analyses of molecular evolution and functional genetic and developmental approaches (CRISPR genome editing, transgenics, gene expression analyses, epigenomic profiling) in a variety of model species (zebrafish, spotted gar, medaka, killifish, and others). Graduate projects

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

2. Conquest of land and 'fish-out-of-water': We are studying genomic changes and their functional consequences leading to the evolution of tetrapods from fishes and other 'fish-out-of-water' scenarios, including the evolutionary loss of genes at the water-to-land transition and the gene regulatory basis of hatching. 3. Evolutionary genomic analyses of zebrafish and other biomedical fish models: Combining genomic sequence comparisons, gene expression analyses and epigenomic profiling, we aim to improve connectivity of teleost biomedical fish models such as zebrafish, medaka, killifishes, etc. to human biology and disease.

We are highly committed to diversity and equity and to foster an inclusive and accessible work environment.

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

Admission: Students will be admitted through the MSU IBIO Graduate Program and the MSU Ecology, Evolution, and Behavior (EEB) Program. Another possible route of admission is through the MSU Genetics and Genome Sciences Graduate Program within the MSU BioMolecular Science Gateway.

Application deadlines for the MSU IBIO and Genetics Graduate Programs are December 1, 2020. Note that GRE scores are not required for application.

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

Interested candidates should email Ingo Braasch (braasch@msu.edu) in advance of the application dead-

lines on December 1.

Please include the following in your email:

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

We are looking forward to your application! Ingo Braasch Assistant Professor Department of Integrative Biology College of Natural Science Michigan State University braasch@msu.edu Twitter: @fishevodevogeno <http://www.fishevodevogeno.org/> braasch@msu.edu

MichiganTechU PlantEvolution

PhD Position Available in Plant Evolutionary Ecology in Dr. Hersch-Green's Lab at Michigan Technological University, Houghton MI

A PhD position is available in Dr. Erika Hersch-Green's lab at Michigan Technological University to join a multi-year NSF-funded project. The overall premise of this project is to examine whether and how nutrient availabilities, disturbances, and plant genome size together contribute to the structuring of terrestrial biodiversity patterns from the molecular and functional attributes of organisms to multispecies assemblages.

Student will combine field data from across the United States with phylogenetic modelling approaches to examine how changes in nutrient conditions, disturbance regimes, and species interactions affect functional traits and multispecies biodiversity patterns across sites that vary in multiple environmental factors. Student will also be expected to develop complementary research projects and to be involved in teaching workshops/activities to enhance their scientific teaching and communication skills.

Student will work alongside a dynamic research group that includes international and national research and teaching collaborators. In general, my lab seeks to understand the origin, maintenance, and changes of genetic, phenotypic and species diversity patterns and current projects are related to plant genome size evolution and ecology, species interactions (plant-herbivore-pathogen-pollinator-plant interactions), and invasive species biology.

Funding for this position is provided for at least 4 years (stipend and tuition; including 3 years of GRA and 1 year of GTA). Candidates must have prior research experience in plant ecology and/or evolutionary biology and in working in field settings. Desired qualifications also include: an M.S. in ecology, evolutionary biology, plant sciences or a related discipline, an excellent academic record, a good quantitative background (including statistics), and strong writing and computing skills; skills in flow cytometry, with a Li-Cor machine, and/or in community phylogenetic methods are highly favored.

Interested candidates should contact Dr. Erika Hersch-Green by email (eherschg@mtu.edu) and include a statement of research interest, an updated CV, and contact information for 3 references. Suitable candidates will be contacted for an interview and will be encouraged to submit a formal application to the graduate school at Michigan Technological University (details on Michigan Tech, the Department of Biological Sciences, and the application procedure can be found at <http://www.mtu.edu/biological/>).

Review of applicants will begin November 'V Start date is flexible.

Michigan Tech is located in Houghton, MI on the south shore of Lake Superior. Houghton was recently named one of the 100 best small towns in America and the local community provides excellent resources conducive to quality family life. This area is known for its natural beauty, pleasant summers, abundant snowfall, and numerous all-season outdoor activities. The University maintains its downhill and cross-country ski facilities adjacent to campus and a nearby golf course. Numerous cultural activities and opportunities are available on campus and in the community.

Links for more information about the university and its surrounding area: Michigan Tech Home Page (<http://www.mtu.edu>) Campus Profile (<http://www.mtu.edu/campus>) Graduate School (<http://www.mtu.edu/gradschool>) Research (<http://www.mtu.edu/research>) Recreation (<http://www.mtu.edu/recreation>) Webcams (<http://www.mtu.edu/webcams>)

Erika Hersch-Green, Associate Professor Department of Biological Sciences 740 DOW Building Michigan Technological University 1400 Townsend Drive Houghton, MI 49931 Office: 906-487-3351 Fax: 906-487-3167 Email: eherschg@mtu.edu

Erika Hersch-Green <eherschg@mtu.edu>

MississippiStateU PlantEvoEco

The Folk lab at Mississippi State University is recruiting at Master's or PhD levels! We are looking for students interested in plant evolution, phylogenomics, or plant-microbe interactions.

We work broadly on projects at the intersection of plant evolution and ecology, with a focus on macroevolution and speciation processes. Current projects in the lab focus on (1) the evolution of nitrogen-fixing symbioses in plants and associated microbes and how this enabled invasion of harsh habitats, (2) the origin and radiation of the world's temperate flora, and (3) the contribution of hybridization to plant speciation. We stress interdisciplinary student training, and all of our work has strong wetlab, computational, field, AND herbarium-based components. This work is funded by the National Science Foundation. We work with students to develop their own projects in these areas or related themes and put a stress on student ownership of the work. Additional information about us can be found at: <http://www.ryanafolk.com/>. Students will be supported a full 12 months through a combination of research assistantships (both semester and summer) and TA appointments. We are highly collaborative and aim for an inclusive environment. We particularly encourage POC and LGBTQ+ individuals to consider us for their graduate careers.

Those interested should contact me directly by email (rfolk@biology.msstate.edu) before applying with an attached CV and some information on your research interests. Our graduate admissions deadlines are flexible but applications before December 31, 2020 are preferred.

Mississippi State is located in Starkville, northeastern Mississippi, and a half-hour drive from Noxubee Wildlife Refuge and Tombigbee National Forest with excellent outdoor opportunities. We are 1.5 hours from Tuscaloosa, 3 hours from Memphis, and 4.5 hours from New Orleans. Additional departmental details can be found at: <https://www.biology.msstate.edu/>. "rfolk@biology.msstate.edu" <rfolk@biology.msstate.edu>

NMNS Madrid ProtamineEvolution

PhD studentship: Protamines - Evolution and role in sperm formation and function. Location: National Museum of Natural Sciences, Spanish Research Council (CSIC)

A 4-year PhD studentship position is available to join the group led by Eduardo Roldan at the Reproductive Biology and Evolution Group, of the Spanish National Research Council (CSIC) in Madrid, to work in the project "Protamines: Evolution and role in the protection of sperm DNA, sperm head shaping and cell performance" (ref. PID2019-108649GB-I00).

The student will participate in an effort aimed at investigating the role of protamines in sperm formation and function. Protamines protect DNA from damage, silence genes, participate in paternal imprinting, carry epigenetic information and, by condensing chromatin, influence sperm head shape and overall sperm hydrodynamic efficiency and, in turn, sperm motion. Defects in protamine function associate with sperm abnormalities, fertilization failure, embryonic death and onset of genetic disease in offspring. We are interested in protamine evolution and how chromatin compaction influences sperm head formation during spermiogenesis. An in vitro system of somatic cells expressing protamines will be used to understand nuclear remodelling and shaping. By using sperm sorting systems, based on microfluidics and response to chemoattractants, relationships between performance, head shape and sperm DNA compaction by protamines will be examined. Results will allow us to gain a thorough and deeper understanding of factors determining sperm structure and function that are crucial for male fertility.

The project will be developed in collaboration with groups at the University of Bonn, Virginia Commonwealth University (Richmond, VA), Universit   di Teramo and Universidad Maim  nides (Buenos Aires) so opportunities exist for international travel and exchange.

Requirements: -Any nationality. -Graduate in Biomedical/Life sciences or related areas. -A Master degree will be mandatory by day of appointment. -An academic record above 7.0 (scale 0-10) is desirable. -Experience in experimental cell and molecular biology. -Candidates should be enthusiastic and have motivation, creativity, and abilities for team-work and cooperation.

Interested candidates should submit a letter indicating motivation, CV, academic grades, and names of two potential references, to Eduardo Roldan (roldane@mncn.csic.es) before 16 October 2020. The candidate will apply to the 2020 FPI call (deadline 27 October 2020).

E.R.S. Roldan Research Professor Department of Biodiversity and Evolutionary Biology, Museo Nacional de Ciencias Naturales (CSIC), Madrid, Spain “We are all in this together” <https://www.youtube.com/watch?v=xlCPkmb6cuY> Eduardo Roldan <roldane@mncn.csic.es>

Norwich EI 4 EvolutionaryBiol

Nearly all human genes undergo alternative splicing, the process through which different transcripts are generated from a single gene. Very little is known about the function of alternatively spliced transcripts. We know it’s a universal phenomenon in eukaryotes, regulation of splicing is tissue and developmental stage-specific, and it plays an important part in fundamental biological processes. The most recent studies, by us and others, point at a vast underestimation in transcript diversity. As a result, we’ve already identified thousands of novel transcripts and exons in both human and mouse studies.

We offer a highly collaborative PhD project between the Haerty Group (bioinformatics) and Macaulay Group (molecular biology, technology development) to investigate the evolution, function, and expression across development stage and cell type of these novel alternative splicing events. There will be a specific focus on those with lineage-specific (primates, rodents) or species-specific (human, mouse) evolution.

You will work in a rapidly-developing field and gain unique expertise in computational biology, large datasets analysis, long-read sequencing technologies, molecular biology, technology development, low input and single cells approaches. The project will be conducted at the Earlham Institute, a world leading research centre for bioinformatics and sequencing technology development. You will have access to training and career development opportunities at EI and on the Norwich Research Park as part of the Norwich Biosciences Doctoral Training Partnership.

References: Macaulay IC, et al. 2015. G&T-seq: parallel sequencing of single-cell genomes and transcriptomes.

Nat. Methods. 12:519-522.

Clark M., et al. 2020. Long-read sequencing reveals the complex splicing profile of the psychiatric risk gene CACNA1C in human brain. *Mol Psychiatry* 25:37-47.

Mincarelli L., et al. 2020. Combined single-cell gene and isoform expression analysis in haematopoietic stem and progenitor cells. *bioRxiv* <https://doi.org/10.1101/2020.04.06.027474> The NRP DTP offers postgraduates the opportunity to undertake a 4-year research project whilst enhancing professional development and research skills through a comprehensive training programme. You will join a vibrant community of world-leading researchers. All NRPDTP students undertake a three-month professional internship (PIPS) during their study. The internship offers exciting and invaluable work experience designed to enhance professional development. Full support and advice will be provided by our Professional Internship team. Students with, or expecting to attain, at least an upper second-class honours degree, or equivalent, are invited to apply.

For further information please contact Wilfried Haerty (wilfried.haerty@earlham.ac.uk) For further information on the programme: <https://biodtp.norwichresearchpark.ac.uk/> Application deadline: November 23rd 2020

UK and International candidates are welcomed to apply To apply, please visit our website: <https://biodtp.norwichresearchpark.ac.uk/projects/for-everything-you-have-missed-you-have-gained-something-else-impact-of-novel-splicing-events-in-human-and-mouse> Wilfried Haerty Group Leader Norwich Research Park Norwich Norfolk NR4 7UZ +44 (0) 1603 450 974 wilfried.haerty@earlham.ac.uk www.earlham.ac.uk —

The process of domestication invariably leads to a loss of genetic diversity and a reduction in population size, leaving the animals more vulnerable to mutations. As these populations interbreed and mutations accumulate, they can cause disease, developmental disorders and infertility – making them ideal models for rare human disorders. Most studies focus on the ~2% of the genome encoding proteins, mainly due to the difficulty in identifying functional non-coding elements. This leaves aside the non-coding regions – sometimes called “the dark genome” – which harbours functional regulatory sequences. The majority of disease- or trait-associated variants are present in these non-coding, often conserved, sequences.

The aim of the project is to use a unique resource consisting of 252 mammal genomes, along with population data, to assess the extent by which population sizes

have been reduced and deleterious mutations accumulated. You will apply the latest developments in machine learning to transfer models and information from highly-studied organisms (human, mouse) to genomes with scarce resources, identifying functional elements and predicting the impact of mutations within them. Using recent protocol

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SUNY Binghamton ClimateAdaptation

PhD student positions in the ecological genomics of adaptation to climate change and ecological speciation.

The Powell Lab (www.powellevolab.com) at Binghamton University (SUNY) is focused on understanding how ecological processes, physiological systems, genetic variation, and genome structure interact during adaptation to novel niches and changing environments. The lab is currently seeking 1-2 PhD students to begin in the Fall of 2021. Graduate students in my lab have opportunities to address these questions from a range of approaches, from field work and physiological assays to transcriptomics and population genomics, and I am specifically looking for students who are interested in engaging in integrative work, combining approaches across levels of biological organization. Work in the lab spans a number of study systems including: the classic ecological speciation system of the apple maggot fly, *Rhagoletis pomonella*, and the adaptation radiation of its broader species complex, gall formers and their associated parasitoids, and a species complex of ants in the genus *Aphaenogaster*. Major themes of our current research program include understanding how standing genetic variation that allows for rapid evolutionary responses to environmental change and incipient speciation in response to novel niches is maintained in species across latitude, elevation, and heterogeneous biotic interactions as well as experimental approaches to identifying risk of maladaptive responses to climate change in insect communities.

We are seeking highly motivated students interested in the ecological genetics and evolutionary ecology of the

origin and maintenance of biodiversity. Students with a BS or MS in Biology (or other relevant disciplines), with research experience and a solid background in laboratory bench work, who are comfortable with field work, have proven writing and communication skills, and who are self-motivated and independent will be the most competitive. Other desirable qualifications include a strong grasp on statistics, experience in computational methods, or strong background in insect biology.

Binghamton University is the top-ranked institution in the SUNY system and is consistently rated as one of the premier public universities in the Northeast. Our campus is located in the Southern Tier of New York, between the Catskills and Finger Lakes, about a 3 hour drive from NYC. The region features abundant opportunities for outdoor recreation and a very reasonable cost of living. Our setting on the Allegheny Plateau isn't just aesthetically pleasant, it also happens to be an excellent geographic location for our lab's study systems. The department's EEB program features a tight knit group of labs that share many fundamental research interests, providing an intellectually rich setting for students working at the intersection of evolution, ecology, and genetics.

If you are interested in the position, please email me a cover letter stating your research interests and highlighting your relevant skills and your CV, Please put "Graduate Position" in the subject line of the email. Formal applications to the PhD program are due on December 15th for full consideration by our graduate committee, but please contact me well in advance if you are interested in applying.

Tom Powell Assistant Professor Department of Biological Sciences powellt@binghamton

"powellt@binghamton.edu" <powellt@binghamton.edu>

Taipei Taiwan EvolGenomics

Funded graduate positions in evolutionary genomics in Taiwan (application by November 30, 2020)

PhD and master's positions with stipends are available in the lab of Evolution and Ecology of Eukaryotic Microbes (EEEM) led by Dr. Chuan Ku at the Institute of Plant and Microbial Biology, Taipei, Taiwan.

The EEEM lab was established in 2019 and focuses on 1. evolutionary history of marine microalgae (which account for half of carbon fixation worldwide) and other

eukaryotes, 2. genome regulation and evolution of giant viruses infecting diverse eukaryotes, and 3. dissecting microbial interactions and cell dynamics using single-cell omics approaches. Successful applicants will be enrolled in graduate programs at top Taiwanese universities the lab is affiliated to and complete required courses taught in English.

Our institute is part of Academia Sinica, the national research institution of Taiwan, where labs have been working normally and face-to-face classes/seminars/meetings are possible during the current global pandemic. The working language in our lab and institute is English. Knowledge in Mandarin and other Taiwanese languages is not required, but students are encouraged to take free Mandarin classes on campus if they want. More details about the programs, universities and stipends can be found on our website.

Application requirements: 1. a master's/bachelor's degree (received in 2021 or earlier) in biology, natural sciences, informatics or related fields 2. English proficiency for reading, writing, and oral communication 3. strong motivation to work in a research environment 4. ability to work both independently and as part of a team Any of these would be a plus: 'V programming skills 'V knowledge in evolutionary biology, genomics, microbiology, molecular biology or cell biology 'V research experience in related fields

To apply, please send an email by November 2020 with the subject IPMB_application_PhDorMaster_YourName directly to Chuan Ku, briefly describing your research interests, experience, skills, future plan, and contact details of referees (at least two for PhD applicants). A single PDF should be attached that includes your CV, transcripts, and, if available, degree certificates, thesis title and abstract, and proofs of relevant skills and experience. Shortlisted candidates will be invited for an interview.

Inquiries about other types of positions are also welcome.

Dr. Chuan Ku (assistant professor) email: chuanku@gate.sinica.edu.tw Lab website: <https://chuanku-lab.github.io/kulab/> Institute website: <https://ipmb.sinica.edu.tw/en> Chuan Ku <chuanku@gate.sinica.edu.tw>

TexasAM GenomicsHybridBirds

The Delmore Lab at the University of Texas A&M is looking for PhD students to join our group. We study speciation using hybrid zones and work at both the micro and macroevolutionary scale. One of our research streams focuses on speciation genomics and includes work on the processes that generation genome-wide variation in estimates of differentiation. We use both genomic data and computer simulations to address this question.

Another research stream focuses on behaviour - how variation in behavioural traits contributes to speciation and the molecular basis of these traits. One of the behaviours we study is seasonal migration. Much of this work focuses on a hybrid zones between Swainson's thrushes but we are constantly expanding the scope of this work. Another behaviour we study is courtship behaviour using a hybrid zone between ruby-throated/black-chinned hummingbirds.

You can apply to work in our lab through three degree programs: Ecology and Evolutionary Biology (<https://eeb.tamu.edu>; deadline Dec 11, 2020), Genetics (<https://genetics.tamu.edu/>; deadline Dec 1, 2020) and Biology (<https://www.bio.tamu.edu/>; deadline Dec 1, 2020). These programs integrate labs across the TAMU campus from international backgrounds. The atmosphere is highly collaborative, enthusiastic and supportive. You will be able to develop knowledge in evolution and substantial genomic and computational skills while you're here.

Texas A&M is a Tier 1 institution with an amazing number of facilities to support research. College station itself is a friendly university town located between Austin and Houston. It is the perfect venue for getting work done while having access to vibrant city centers full of entertainment and culture.

You can find out more about our lab at delmorelab.com. If you are interested in these positions please email a CV (including names and contact details of two-three references) and a one-page cover letter stating your motivations to Kira Delmore (kdelmore@bio.tamu.edu) with the subject line "PhD application". Note that students will then have to formally apply for admission to Texas A&M University through any of the degree programs mentioned above.

Kira Delmore | Assistant Professor Biology, College of Science | Texas A&M University 3528 TAMU | College Station, TX 77843 1 (979) 900-2129 | kdelmore@bio.tamu.edu delmorelab.com

* My working hours may not be your working hours. Please do not feel obligated to reply outside of your normal work schedule. *

“Delmore, Kira” <kdelmore@bio.tamu.edu>

TexasAM HostParasiteGenomics

Ph.D. Position: Evolutionary Genomics of Host Defense and Parasite Counter-Defense The Criscione Lab at Texas A&M University is looking to recruit a PhD student starting in the Fall of 2021.

The direct interplay between parasites and their hosts enables reciprocal selective pressures that can shape underlying genetic variation in both parasites and their hosts. We have draft genomes of a gecko and its tapeworm parasite (with plans to do another parasite species). Bioinformatics, transcriptomics, phylogenomics, and population genomics will be used to study the evolution of host immune loci and parasite loci that enable evasion or modulation of host immunity.

Those with evolutionary and ecological genomics interests in any of the following are encouraged to apply: reptiles, flatworms, host-parasite interactions, invasive species, and/or inbred (i.e., selfing) species.

Texas A&M has excellent resources to train students in NGS, bioinformatics, and quantitative skills.

Interested students can contact Charles Criscione (ccriscione@bio.tamu.edu) for details about the project. Prospective students can apply to the Biology Department or to the Ecology, Evolution and Behavioral (EEB) PhD Interdisciplinary Program.

More information on how to apply to the Biology Department can be found here: <https://www.bio.tamu.edu/graduate-doctoral-programs/> More information on how to apply to EEB can be found here: <https://eeb.tamu.edu/graduate-program/prospective-students-2/> Both program applications are due Dec 1. For those that qualify, the university offers Texas A&M Graduate Merit Fellowships and Diversity Fellowships.

Charles D. Criscione, Professor Department of Biology Texas A&M University 3528 TAMU College Station,

TX 77843-3258

phone: (office: 979-845-0917, lab:979-845-0925, fax:979-845-2891) email: (ccriscione@bio.tamu.edu) faculty web page: <https://www.bio.tamu.edu/faculty-page-charles-criscione/> https://www.researchgate.net/profile/Charles_Criscione “ccriscione@bio.tamu.edu” <ccriscione@bio.tamu.edu>

TexasChristianU SalmonPopulationGenomics

Master’s position for a collaborative project with TCU and NOAA Fisheries to understand the genetic basis of domestication selection in Chinook salmon. Project will focus on whole genome sequencing of multiple hatchery lineages of Chinook salmon. The student will be housed at Matt Hale’s laboratory at TCU and will have opportunities to travel to Southeast Alaska for field work. Please see job posting for more information: <https://wfscjobs.tamu.edu/jobs/m-s-position-in-genomics-and-evolutionary-biology-texas/> .

“Wesley A. Larson” <wl Larson1988@gmail.com>

TrinityC Dublin MolecularEvolutionaryGenetics

ERC-funded PhD studentship in Molecular Evolutionary Genetics (4 years)

Applications are invited for a PhD studentship position in Prof Aoife McLysaght’s research group at the Smurfit Institute for Genetics, Trinity College Dublin. The position is funded for 4 years, starting either in March 2021, or September 2021.

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

The fellowship is part of our European Research Council-funded project DOUBLEEXPRESS, whose aim is to explore the complex relationship between gene duplicability and gene expression and dosage sensitivity. Information about our lab is available at <http://www.gen.tcd.ie/~molevol> You will be part of a team that will comprise

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

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

Stipend: Å18,000 per annum, plus academic fees.

Applicants should apply here: <http://www.gen.tcd.ie/-molevol/jobs.html> Closing date: 20 November 2020, at 17.00 hrs (Irish Time), but applications will be considered until the position is filled.

Aoife Mc Lysaght <MCLYSAGA@tcd.ie>

U Akureyri Iceland Ptarmigan Genomics

Ph.D. studentship in Rock ptarmigan ecological genomics at the University of Akureyri, Iceland.

We're seeking a highly motivated Ph.D. student to work on a fully funded project on evolutionary genomics and ecology of rock ptarmigan (*Lagopus muta*) in Iceland. The project is funded for 36 months, starting in november 2020.

The project Ecological genomics encompasses ecology, genomics, and evolutionary biology, and utilizes genomic approaches to address consequential ecological questions. In this the project we will apply an ecogenomic approach, by analysis of genome diversity and gene expression, assessing the association of genetic variants to population cycling or intermediate phenotypes of rock ptarmigan. Within the frame of the recently completed comprehensive project, "Rock ptarmigan health and population change" spanning the years 2006-2018, a unique tissue and dataset have been created by the annual collection from this wild bird population. We aim to explore the impact of trophic interactions such as diversity of the gut microbial community, plant-herbivore interactions, and role of toxins. The health parameters and tissue collection of Icelandic rock ptarmigan are unique with no such comparable dataset available elsewhere The ecogenomic approach will involve generating genomes,

transcriptomes, and miRNAomes from the rock ptarmigan followed by comparative genomics and tissue-specific expression analysis with the goal to map and characterize genomic regions involved in selection/adaption and to examine how genes are involved in various biological processes such as abiotic and biotic stress responses.

The main supervisor of the Ph.D. student is Professor Kristinn Pétur Magnússon at the Faculty of Natural Resource Sciences, University of Akureyri (UNAK, www.unak.is), and Icelandic Institute of Natural History (IINH). Other advisors are Professor Jacob Höglund at the Institute of Ecology and Genetics, University of Uppsala, Sweden. Professor Snbjörn Pálsson, Faculty of Life and Environmental Sciences, University of Iceland, Dr. Eva Charlotte Halapi, Faculty of Natural Resource Sciences, UNAK, and Professor Jennifer Forbey, Department of Biological Sciences, Boise State University, Boise, USA. The bulk of the work will be carried out at the UNAK/IINH laboratories in Akureyri, but the student will also attend secondments in Uppsala, Sweden, and Idaho, USA.

The role of the doctoral student In accordance with the rules and regulations for doctoral studies at the University of Akureyri, the student will prepare and submit their own study plan, and otherwise submit to the obligations and attain the rights of doctoral students at UNAK. The doctoral studies will conclude with the public defence of a Ph.D. thesis consisting of peer-reviewed publications in internationally recognized academic journals.

Qualifications A successful applicant will have a first-class M.Sc.-degree or equivalent in a relevant field, such as evolutionary biology, genomics, bioinformatics, population genetics, or molecular genetics. The applicant will furthermore have a genuine, interest in science, as well as a willingness to learn new methods of research and excellent interpersonal and collaborative skills. Documented reading, writing, and communication skills in English are an absolute must.

The application deadline is October 20th, 2020. The applicant should be able to commence employment in november 2020.

Application process The application process for doctoral student positions at the University of Akureyri is divided in two steps: Firstly, the applicant submits an formal application to the relevant research project to kpm@unak.is.

The application should consist of:

1. A cover letter, wherein the applicant states the reasons for their interest in the project, explains how they fulfill the eligibility criteria, and outlines their proposed

contribution to the project. 2. A curriculum vitae, listing all relevant qualifications and work experience. 3. A copy of any relevant diplomas and/or transcripts. 4. Contact information for at least two reference persons.

Secondly, once the successful applicant has been offered a position in the research project, a formal application for admission into the doctoral studies program should be prepared under the supervision of the main advisor. Guidance can also be obtained from the doctoral studies program at doktorsnam@unak.is.

Further information Salaries and benefits are according to the Collective Agreement on Salaries and Work Conditions between the Union of University Teachers at the University of Akureyri (FHA) and the Minister of Finance. Incomplete applications will not be considered. The University of Akureyri reserves the right to reject all applications. Every application will receive a reply after a decision on appointment to the position has been made. The

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UAlabama Huntsville Evolutionary Physiology

I am currently recruiting 2 students (MSc or PhD) to join my lab starting Fall 2021 in the Department of Biological Sciences at the University of Alabama in Huntsville.

My lab seeks to understand evolutionary patterns and processes by integrating ecology, physiology, and behavior to explain the origin and maintenance of phenotypic and species diversity. Our projects combine field studies and controlled experiments in the lab with modern genomics techniques and phylogenetic comparative methods. We currently focus on livebearing fishes as a study system, but are also interested in exploring interesting questions through experimental evolution approaches with small invertebrates.

The lab's main research topics currently include (1) understanding mechanisms of thermal adaptation and their role in diversification, (2) exploring the mechanisms maintaining adaptive genetic variation within

populations with an emphasis on color polymorphism as a model phenotype, and (3) using phylogenetic comparative methods to examine major patterns of phenotypic diversification.

I support a diverse and inclusive work environment and encourage applicants from all groups especially those underrepresented in STEM. Prior work with fish is not required, but some prior experience with any of the following would be beneficial: animal husbandry, behavior, genetics, or field work.

If you are interested in joining the lab for Fall 2021, please contact me directly by email before applying (zwc0001@uah.edu). In your email, include a CV, a ~1/2 page summary of your research interests, prior research experience (if any), and the reason you are interested in obtaining an advanced degree. Priority deadline for graduate school applications is Dec 1 2020, although applications from exceptional candidates may be considered until Dec 31 2020.

Additional details about the Department of Biological Sciences and associated programs can be found at: <https://www.uah.edu/science/departments/-biology/programs/graduate>. Located in North Alabama, the University of Alabama in Huntsville is a campus of ~7500 students. The Huntsville metro area comprises ~500,000 residents with a variety of outdoor activities, numerous restaurants, and other local amenities. Huntsville is situated between several larger metropolitan hubs (Nashville, TN = 90 Mins, Atlanta = 3hrs) and is surrounded by high levels of biodiversity, mountains within 1 hour and the gulf coast slightly farther away. There are a number of opportunities for outdoor experiences from hiking the many local trails to kayaking local rivers or exploring caves scattered around the region.

Zachary Culumber

Assistant Professor

UAH Biological Sciences

www.zwcresearch.com he/him

Zachary Culumber <zwc0001@uah.edu>

UAlabama UVirginIslands Seaweed Genotypic Diversity

The Krueger-Hadfield Evolutionary Ecology Lab is searching for a graduate student to work on seaweed genotypic diversity.

The Krueger-Hadfield lab at the University of Alabama at Birmingham, in collaboration with the Cruz-Rivera lab at the University of the Virgin Islands, is recruiting a M.S. student to begin in Summer 2021 or Fall 2021. Our lab uses natural history, manipulative field and laboratory experiments, and population genetics and genomics in algae and invertebrates to test hypotheses centered on the evolutionary maintenance of sex. You can learn more about the Krueger-Hadfield lab at <https://www.quooddy.com>. The M.S. project, recently funded by the National Science Foundation, will focus on the genotypic diversity and mating system dynamics of *Sargassum* accumulations in the US Virgin Islands. The graduate student will be supported through both teaching and research assistantships. Pending COVID-19 regulations, there will be fully-funded field work in the US Virgin Islands. The student will also be able to become involved in other field and lab projects currently underway in the Krueger-Hadfield lab and through this UAB-UVI collaboration.

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

If you are interested, please send an email to Dr. Stacy Krueger-Hadfield (sakh@uab.edu) including the following: 1) a statement of research interests and how those interests fit into the Krueger-Hadfield lab, with particular reference to population genetics, and 2) your CV.

sakh@uab.edu

UAlberta HostParasiteBehaviour

A graduate research position (MSc or PhD) is available in Dr. Lien Luong's research group (<https://grad.biology.ualberta.ca/luong/>) at the University of Alberta starting September 2021. Project background: Exposure to parasites can lead to changes in host behavior, morphology, or physiology, even in the absence of infection. These non-consumptive effects (NCE) can be understood in the context of the "ecology of fear". Potential projects include, but are not limited to investigating the: 1) state-dependent nature of NCE,

2) trait-mediated NCE, 3) NCE of parasites on host metabolism, and 3) evolutionary consequences of NCE. Successful applicants will investigate these questions using a fruit fly-mite system, applying concepts and techniques from behavioral ecology, physiological ecology, and/or experimental evolution. For more information: <https://grad.biology.ualberta.ca/luong/>. To learn more, please send a brief statement of your research experience/interest and a copy of your curriculum vitae to lluong@ualberta.ca. Application deadline is February 1, 2021.

Lien T. Luong, PhD Associate Professor Department of Biological Sciences CW 405, Biological Sciences Bldg. University of Alberta Edmonton, AB T6G 2E9 Canada Office: (780) 492-1818 <https://hocking.biology.ualberta.ca/labs/luong/> Lien Luong <lluong@ualberta.ca>

UArkansas EvoGenetics

The Lewis Lab at the University of Arkansas has at least one open position for graduate students starting in the Fall of 2021. Our group is broadly interested in understanding how cells sense and respond to stressful environments. Our laboratory combines global approaches including functional and comparative genomics with classical biochemistry, genetics, and molecular biology. This integrated approach allows students to benefit from the big-picture view that global studies provide, without losing sight of the biochemical mechanisms that underlie cellular regulation of stress defense. We encourage interested potential applicants to visit our website and publications to identify possible projects of interest.

The position is currently funded by an NSF CAREER award through 2024. Graduate students receive full tuition waivers, health benefits, and current stipends (12-mo) are \$23,733. Competitive applicants may apply for internal fellowship that award an additional \$12,000 or \$22,000 per year. Interested students are encouraged to contact Dr. Lewis (lewisja@uark.edu) before applying.

The Lewis lab is committed to maintaining a diverse, open, and inclusive environment. Our lab is a place where everyone should feel safe and respected, regardless of age, disability, race, gender, gender identity, sexual orientation, national origin, religion, or socioeconomic status. We encourage applicants from traditionally underrepresented groups.

Jeffrey A. Lewis, Ph.D. Associate Professor of Biological

Sciences

University of Arkansas Department of Biological Sciences Science and Engineering 526 Fayetteville, AR 72701 479-575-7740

“Jeffrey A. Lewis” <lewisja@uark.edu>

UBritishColumbia EvolutionaryEcol

A graduate position in evolutionary ecology is available starting September 2021 supervised by Dr. Dolph Schluter in the Biodiversity Research Centre and Zoology Department at the University of British Columbia in Vancouver, Canada. The Centre and Department provide a highly supportive and collaborative environment with many seminar and discussion groups, mixed lab meetings, and a physical arrangement that breaks down divisions between lab groups, students and faculty.

Research topics in the Schluter lab are diverse and include studies of: causes of adaptive radiation, the evolutionary consequences of species interactions, the ecology and genetics of speciation, selection on genes underlying adaptation, natural and sexual selection on phenotypic traits, and the evolution of Earth’s major biodiversity gradients. Many of these topics are addressed experimentally in the lab and ponds using threespine stickleback fish. Students have the flexibility to develop independent projects or work closely with the supervisor on these or other topics of interest.

Application requirements include a Master’s or Bachelor’s degree in biology, natural sciences, or related field, English proficiency for reading, writing, and oral communication, a strong motivation to conduct a research, the ability to work both independently and as part of a team, and a commitment to principles of equity, diversity and inclusion.

The Department guarantees a minimum student salary of CAN \$28,000 for MSc and PhD students making progress on their theses, achieved by a combination of scholarships, teaching assistantships, graduate research assistantships, and competitive four-year fellowships. Tuition is free for PhD students in the first four years.

To apply, please send an email by November 15, 2020, to schluter@zoology.ubc.ca.

The Biodiversity Research Centre and the Department of Zoology at UBC are committed to fostering a workplace in which individual differences are recognized, appre-

ciated, respected, and responded to in ways that fully develop and utilize each person’s talents and strengths.

The Student Diversity Initiative (SDI) seeks to embed UBC’s core values of equity, diversity, and inclusion throughout the operations, systems, culture and organizational structures that directly impact the campus experience for diverse students. To learn about the Student Diversity Initiative, please visit the Equity & Inclusion Office website <https://equity.ubc.ca/> or call +1 (604) 827 1773.

The Centre for Accessibility at UBC provides guidance finding the right resources and disability-related accommodation to remove barriers for students with disabilities or ongoing medical conditions. For more information, visit <https://students.ubc.ca/about-student-services/centre-for-accessibility> or call +1 (604) 822 5844.

“schluter@zoology.ubc.ca” <schluter@zoology.ubc.ca>

UCentralFlorida PlantEvoEco

PhD position in Genetics and Evolution of Plant Secondary Metabolism

The Mason Lab in the Department of Biology at the University of Central Florida is currently seeking 1-2 PhD students for Fall 2021 matriculation to assist with funded research on the evolution, genetic architecture, and ecological and agricultural consequences of variation in plant secondary metabolism in cultivated and wild sunflowers (*Helianthus*). We are most seeking students interested in three core topic areas: inducible chemical defenses against leaf herbivores and pathogens, chemical defense against floral fungal pathogens, and the role of floral fragrance in plant-pollinator interactions. Over the next several years the Mason Lab will be mapping the genetic architecture of secondary metabolite variation within the cultivated sunflower germplasm, as well as reconstructing the evolution of secondary metabolite variation and sequence variation in key genes across diverse wild relatives.

The most competitive applicants will have research experience through undergraduate, post-baccalaureate, or Master’s thesis research. Experience with research on plant secondary metabolism or plant-biotic interactions is preferred, and familiarity with one or more of the following approaches would be ideal: phylogenetic comparative methods, genome-wide association mapping,

analytical chemistry of plant tissues (GC-MS/HPLC), laboratory techniques in plant pathology, or plant pollinator observations.

Interested students must contact Dr. Chase Mason to discuss research interests before applying to the Department of Biology graduate program (<https://sciences.ucf.edu/biology/graduate/phd-program/>), which has a deadline of December 1, 2020. GRE scores are no longer used in admissions within the Biology department, and are not required for either university admission or merit-based fellowship consideration for the upcoming admissions cycle.

The Department of Biology provides support to PhD students through teaching assistantships, tuition waivers, and health insurance. Students admitted with teaching assistantship are guaranteed continued teaching assistantship support for a minimum of eight Fall/Spring semesters (four years), extendable to six years with satisfactory progress toward the degree. The nine-month PhD stipend for teaching assistantships is \$19,000, and the Mason Lab supplements PhD students with an additional \$5000 in summer stipend support so long as laboratory research funding persists.

The University of Central Florida is located in Orlando, Florida. UCF is a Hispanic-Serving Institution, and one of the largest universities in the United States, with an enrollment of 69,000 students. Over the past two decades, UCF has undergone a dramatic expansion and development into a modern R1 university. UCF is an equal opportunity, equal access, and affirmative action employer.

Chase Mason, PhD

Assistant Professor Assistant Graduate Program Coordinator

Department of Biology

University of Central Florida

Email: chase.mason@ucf.edu

Website: <https://plantevoecophys.wordpress.com/>
"Chase.Mason@ucf.edu" <Chase.Mason@ucf.edu>

UColorado Denver EvolutionaryPhysiology

The Ragland lab at the University of Colorado, Denver is seeking a PhD student to develop new and interesting questions in evolutionary physiology and contribute to ongoing projects. Current research includes the evolution of physiological plasticity and transcriptional dynamics, the genomic architecture of rapid adaptation, and the developmental regulation of suspended animation during dormancy. Various current and past student projects have included field ecology, population genomics, developmental transcriptomics, and more recently dynamics of new transcription and transcript degradation. For more information please visit our webpage: <https://raglandlab.wordpress.com> Ideally, applicants will have a solid background in either evolutionary biology, genetics, or comparative/ecological physiology, and be willing to learn new skills or hone existing skills in in one or both of two areas: 1) bioinformatic and statistical analysis of 'omics data sets, and 2) wet lab molecular biology (including NGS library preparation) or fly developmental biology (including microdissection, confocal microscopy, etc.). Strong scientific curiosity and a collaborative mindset are a must. Competitive stipends and research assistantships are available.

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

The deadline for applications to the PhD program at CU Denver is 1 December. See the following website for program details: <https://clas.ucdenver.edu/>

[integrative-biology/academics/graduate-programs](#)

Please make initial contact with Greg Ragland at gregory.ragland@ucdenver.edu to discuss possible positions. Including a CV and a cover letter addressing your research and educational background and career goals will help to get the conversation started.

GREGORY.RAGLAND@ucdenver.edu

UEastAnglia GenomicsMicroAlgae

Ice-binding proteins (IBPs) in cold-adapted diatoms - implications for survival under freezing temperatures

MOCK_U21DTP

PhD Position at the UEA: Applications are invited for a PhD candidate to join the group of Thomas Mock (Marine Microbiology, University of East Anglia) in a collaborative project with Cock van Oosterhout (Evolutionary Genetics, University of East Anglia) to conduct research on an UKRI-BBSRC funded project studying a ubiquitous family of ice-binding proteins (IBPs) that helps cold-adapted organisms to survive at extreme low temperatures.

Background:

The ocean harbours the largest untapped resource for novel products used in biotechnology, agriculture and medicine. Many valuable products with great potential have been isolated from cold-adapted marine microbes as they occupy extreme environments, which require proteins to function at low temperatures. The ubiquitous family of ice-binding proteins (IBPs) helps cold-adapted organisms to survive at lower temperatures by reducing ice-crystal formation, and in case of microbes by reshaping their icy surroundings. Potential applications include controlling ice-crystal formation in food, growing frost-resistant crops and improving preservation of cells and tissues for medical applications. However, as IBPs are diverse, the function of different isoforms needs to be determined, which will define their applications in biotechnology.

PhD studentship:

This PhD studentship will determine the function of representative IBPs in the cold-adapted model diatom *Fragilariopsis cylindrus* through reverse genetics and biochemical characterisation. The genome of this prolific diatom encodes several IBP genes, which are differentially expressed, and preliminary data based on targeting

signals imply that their proteins are localised in different parts of the cell, which suggests that they perform different roles. The student will fluorescently tag IBPs for their subcellular localisation and assess their effects on growth and ice-structure. Furthermore, genome editing will be used to remove IBP genes from the genome of *F. cylindrus* for their characterisation through loss of function. Thus, data from this project will lay the foundation for a biotechnology platform to characterise cold-adapted proteins for providing new insights into the biology of polar organisms and to test and produce novel cold-adapted proteins.

The ideal candidate:

Candidates for academic admission to a doctoral degree at UEA and for entry to the Norwich Research Park Biosciences Doctoral Training Partnership (NRPDTP) programme must have obtained (or be about to obtain), a First or Upper Second-class UK Honours degree in evolution, genetics, biotechnology, or a related field. Students with qualifications gained outside the UK that are considered to be equivalent are eligible as well. Applicants with a Lower Second-class degree will be considered if they also have a Masters degree, or have significant research or non-academic experience relevant to the proposed field of research. Studentships awarded based on predicted grades will be conditional upon final results.

Funding:

The NRPDTP funding is provided by UKRI-BBSRC and its Partners and supports, for a maximum of 4 years, to successful eligible candidates:

- UEA tuition fees paid directly to the University
- A student stipend to cover living expenses for each year of study at the UKRI national minimum rate (2020/21 stipend is 15,285)
- A Research Training Support Grant (5,000 per annum)
- PIPS or CASE placement costs

For information on University fees and funding relating to postgraduate research degrees please visit the UEA website. For further information on the PhD programme:

<https://bioldtp.norwichresearchpark.ac.uk/> For informal enquiries, please contact Thomas Mock (t.mock@uea.ac.uk), or Cock van Oosterhout (c.van-oosterhout@uea.ac.uk).

APPLICATION DEADLINE

23rd November 2020

START DATE

1st October 2021

“Cock Van Oosterhout (ENV - Staff)” <C.Van-Oosterhout@uea.ac.uk>

UExeter AnimalBehaviour

Dear Colleagues,

We are excited to advertise a NERC GW4+ DTP funded PhD studentship co-supervised by Dr. Lisa Leaver and Dr. Tim Fawcett at the University of Exeter and Dr. Sean Rands at the University of Bristol on:

INVESTMENT DECISIONS IN GREY SQUIRRELS: THE ROLE OF FUTURE DISCOUNTING AND EXECUTIVE CONTROL

More information about the project and how to apply can be found here: <http://www.exeter.ac.uk/studying/-funding/award/?id=3D4027> . The studentship comprises: * A stipend for 3.5 years (currently 15,285 p.a. for 2020-21) in line with UK Research and Innovation rates * Payment of university tuition fees; * A research budget of 11,000 for an international conference, lab, field and research expenses; * A training budget of 3,250 for specialist training courses and expenses. * Up to 750 for travel and accomodation for compulsory cohort events.

The application deadline is Friday 8 January 2021 at 2359 GMT. Interviews will take place from 8th to 19th February 2021.

NERC GW4+ DTP studentships are open to UK and Irish nationals who, if successful in their applications, will receive a full studentship including payment of university tuition fees at the home fees rate.

A limited number of full studentships are also available to international students which are defined as EU (excluding Irish nationals), EEA, Swiss and all other non-UK nationals, though studentships for international students will only cover fees at the UK home fees rate.

Please don't hesitate to contact Lisa Leaver if you have any questions about the studentship (l.a.leaver@exeter.ac.uk).

Dr. Lisa Leaver Psychology Center for Research in Animal Behaviour University of Exeter

“T.W.Fawcett@exeter.ac.uk”

<T.W.Fawcett@exeter.ac.uk>

UExeter PaternalEffectsBirds

A BBSRC funded PhD studentship is available at the University of Exeter, Cornwall Campus, UK to work with Dr Barbara Tschirren, Dr Bram Kuijper, Prof Chris Bass (all University of Exeter), Dr Nicola Hemmings (University of Sheffield) and Dr Oscar Vedder (Institute of Avian Research) on the Causes and evolutionary consequences of non-genetic paternal effects in Japanese quail

Evidence is accumulating that a father's condition can be transferred non-genetically to the next generation and affect offspring development, performance and health. To date, the mechanisms underlying such paternal condition transfer effects remain poorly understood and their evolutionary consequences are largely unexplored. In this project you will use a Japanese quail (*Coturnix japonica*) model system, in which paternal condition transfer effects on offspring reproductive performance have previously been demonstrated, to identify the origin, function and evolutionary consequences of non-genetic paternal effects using a highly multidisciplinary and integrative approach.

Using in vivo experiments combined with state-of-the-art -omics techniques you will test how favourable or harsh early life conditions experienced by males affect their sperm and seminal fluid composition, and how different components of the male's ejaculate mediate inter-generational effects on the daughters' reproductive performance and health.

Experimental in vivo and molecular work will be complemented by evolutionary modelling to quantify the role of paternal condition-transfer effects in altering the response to selection, as well as the potential of experimental interventions to modify evolutionary trajectories of reproductive traits under selection through paternal effects.

The project will provide fundamental novel insights into the mechanisms underlying paternal condition transfer effects across generations and the potential of early life interventions to alter evolutionary trajectories, both directly relevant to the management of animal health and performance as well as our understanding of the reproductive lives of birds.

The studentship is funded for 4 years. During the project you will obtain interdisciplinary training in a

variety of state-of-the-art approaches and techniques that are highly sought after by employers in and outside of academia, including experimental in vivo skills, molecular techniques, bioinformatics, and mathematical modelling. You will be based in a thriving, friendly and inclusive department and benefit from the complementary expertise of a highly multidisciplinary supervisory team. Further details of the project can be found here <https://bit.ly/2HyimaG> and information about the program here <https://www.swbio.ac.uk>. The deadline for applications is Dec 7th 2020. Informal enquiries can be directed to Barbara Tschirren (b.tschirren@exeter.ac.uk)

“Tschirren, Barbara” <B.Tschirren@exeter.ac.uk>

UFLorida Evolutionary Anthropology

Graduate Student Opportunities in Evolutionary Anthropology at University of Florida

The Graduate Program in Evolutionary Anthropology in the Department of Anthropology at the University of Florida is recruiting doctoral level students. Our department (www.anthro.ufl.edu) has 30 full-time faculty with diverse interests that complement student opportunities for research and training. We are one of the top rated anthropology programs in the country and have an active cohort of graduate students. Our emphasis in Evolutionary Anthropology complements the department's four-field approach to essential and pressing questions in the field. With our students, we aim to understand the natural and cultural history of humankind through detailed study of human and non-human primate morphology, physiology, genetics, and behavior/cognition.

The University of Florida is ranked #6 among public universities in the U.S. and there are many opportunities for collaboration among its 16 colleges, and 2000-acre campus, and extensive global networks. Gainesville is located in north central Florida, with average temperatures ranging from 45°F to 90°F, and the Gulf Coast and Atlantic beaches relatively close (~ 1?? hours drive).

Successful applicants are offered competitive funding through teaching assistantships, with additional support available through fellowships/research assistantships, as available. The deadline for applications each year is December 15th, however, applicants should apply early to ensure that all parts of their application meet the dead-

line. As of 2020, GREs are not required for applications to be complete.

We recommend potential applicants contact specific faculty and identify potential mentors before submitting an application. Our faculty are more than willing to entertain questions about the program and about their own labs and research. For questions or assistance with the application process, please e-mail our Graduate Program Coordinator, Ms. Juanita Bagnall <jjba@ufl.edu> or the Graduate Coordinator, Dr. Katherine Grillo <kgrillo@ufl.edu>. More information about graduate studies in Anthropology can be found here <<https://anthro.ufl.edu/academics/grad-students/>>.

Evolutionary Anthropology Faculty at UF

Jonathan I. Bloch, Ph.D. <<https://www.floridamuseum.ufl.edu/museum-voices/jon-bloch/>> (Paleontology) John Krigbaum, Ph.D. <<https://anthro.ufl.edu/2013/09/29/krigbaum/>> (Bioarchaeology) Stephanie Bogart, Ph.D. <<https://anthro.ufl.edu/2018/08/29/stephaniebogart/>> (Primateology) Connie J. Mulligan, Ph.D. <<https://anthro.ufl.edu/2013/09/29/mulligan/>> (Genetics) David J. Daegling, Ph.D. <<https://anthro.ufl.edu/2013/11/05/ddaegling/>> (Morphology) Phoebe R. Stubblefield, Ph.D. <<https://anthro.ufl.edu/2018/08/29/phoebestubblefield/>> (Forensic Anthropology) Valerie Burke DeLeon, Ph.D. <<https://anthro.ufl.edu/2013/11/24/deleon/>> (Morphology) Kim Valenta, Ph.D. <<https://anthro.ufl.edu/2019/08/26/kimvalenta/>> (Primateology)

Jonathan I. Bloch, Ph.D. <<https://www.floridamuseum.ufl.edu/museum-voices/jon-bloch/>> (Curator of Vertebrate Paleontology at the Florida Museum of Natural History) Bloch (University of Michigan, 2001) studies fossil vertebrates from the Cenozoic with an emphasis on addressing questions surrounding the first appearance and early evolution of the modern orders of mammals, including Primates. He does field-based research in the Miocene of Panama and Florida, the Paleocene and Eocene of the Clarks Fork, Bighorn, Bridger, and Crazy Mountains basins of Wyoming and Montana, and the Cerrejon and Bogota formations of northern Colombia. His research includes an emphasis on primate origins and adaptations and understanding the response of vertebrate communities to climate change as documented in the fossil record.

Stephanie Bogart, Ph.D. <<https://anthro.ufl.edu/2018/08/29/stephaniebogart/>> (Lecturer in Anthropology) Bogart (Iowa State University, 2009) is a behavioral ecologist who specializes in ape research. Using interdisciplinary training in her work she has examined chimpanzee feeding behaviors,



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UHull BeeNutritionalEcolGenomics

~~ Fully funded PhD: Nutrigenomics and the resilience of bees in a changing climate ~~

For details please contact Dr James Gilbert (james.gilbert@hull.ac.uk). To apply, and for more details: <https://panorama-dtp.ac.uk/research/nutrigenomics-and-the-resilience-of-bees-in-a-changing-climate/> Deadline: 5 Jan 2021 Eligibility: UK, EU and International, but with funding stipulations here: <https://panorama-dtp.ac.uk/how-to-apply/> Funding: UK (NERC, Competition-funded)

A fully funded PhD position is now open for applications at the Universities of Hull and Leeds, UK, via NERC's Panorama Doctoral Training Partnership programme.

Bees, our foremost pollinators, are vital for ecosystem stability and global food security providing pollination services worth hundreds of billions of pounds annually. The UK is home to ~245 species of wild bees which collectively perform more pollination than managed honeybees and bumblebees. Unfortunately, wild bee populations are declining, under pressure from multiple causes with one key factor being nutrition.

All bees feed offspring with pollen gathered from the landscape. But human influences such as agricultural intensification are altering nutritional landscapes for bees [3,4], and fundamentally affecting gene expression, growth and reproduction. Most of what we know about bee nutrition comes from studies in social bees like honeybees or bumblebees [5,6], where nutrition influences caste determination, development, pathogen resistance and others. However, the nutritional ecology of other bees, particularly solitary bees, is largely unstudied.

Human activity is also changing climates and raising average temperatures. Temperature affects animals' metabolic rate, physiology, digestion, and nutrient assimilation, as well as gene expression. Dr Gilbert's recent work [7] has identified the need to store enough carbohydrate and fat to survive the winter as potentially critical for solitary bees' nutritional ecology. But we know little about how this is regulated, how climate

change will affect bees, and how bees will deal with changing nutritional landscapes in a future filled with uncertainty.

We are now, for the first time, in a position to understand not just whether but also how different nutritional landscapes and climates affect bees. This exciting cross-institutional project combines field ecology with cutting edge molecular approaches to address a crucial knowledge gap about how bees are being affected by human-altered nutritional landscapes. This project addresses issues relevant for pure ecological science, conservation biology, agriculture and crop science.

At Hull, Dr Gilbert's lab has pioneered rearing protocols for the economically and ecologically important solitary bee, *Osmia bicornis*. This work is providing an unprecedented window onto bee nutritional ecology. At Leeds, Dr Duncan's lab uses a variety of cutting-edge molecular tools to understand how bees are influenced by their environment. Dr Duncan has conducted groundbreaking work on how nutrition affects gene expression in developing bees, as well as recent work on the environmental and molecular control of reproduction in *O. bicornis*. The student will capitalise on this timely opportunity to synthesize the research interests of these two research groups and create collaborative links between institutions. The candidate will be integrated into both lab groups and will benefit from the infrastructure and connections at both universities.

Using careful manipulations within controlled laboratory environments, the student will first establish how dietary macronutrients affect the fitness of solitary bee larvae in response to changes in rearing temperature. Then, they will use high-throughput sequencing technology to examine genome-wide expression profiles of larvae receiving different diet and temperature treatments, to understand the molecular and physiological mechanisms underlying bees' responses to landscape and climate change. Nutritional cues are known to alter gene expression [8], but to date studies have focussed largely on a few genes, and only in honeybees. The student will compare larvae receiving different treatments in (1) choices larvae make about which nutrients to consume, (2) correlates of fitness such as body size and overwinter survival, and (3) expression of growth-versus diapause-related genes.

Outcomes: The findings will, firstly, shed light on the optimal nutrition for bees both currently, and in a warmer future. They will help inform active measures such as wildflower strips to conserve and promote these vital pollinators as the climate changes. Secondly, results will also show the physiological effects of different nutritional



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

UIIdaho ComparativeGenomics

Ph.D. Positions in Comparative Genomics

The Jones Lab at the University of Idaho is recruiting at least two Ph.D. students to study the comparative genomics of seahorses, pipefishes and seadragons (to start Fall 2021). The students will participate in two major NSF-funded research initiatives. The first is to use comparative genomics and population genomics to investigate genome-level effects of sexual selection. The second is to investigate the evolutionary developmental biology of the male's brood pouch and how its evolution shapes the male-pregnancy microbiome. This latter project is a collaboration between the Jones Lab and the Cresko Lab at the University of Oregon. Both projects will involve international field work, molecular bench work, and bioinformatics.

The University of Idaho is particularly strong in evolutionary biology and bioinformatics. In addition, it is located less than ten miles from Washington State University, which is home to another excellent group of evolutionary biologists. Scientists from the two universities collaborate and interact extensively.

The University of Idaho is located in Moscow, Idaho, which is a small college town situated in the Palouse region of Washington and Idaho. Moscow is known for its quaint downtown and its summer farmer's market. Thanks to its compact size, everything in Moscow is within walking or biking distance. In addition, Moscow's location on the Idaho-Washington border puts it within easy reach of abundant outdoor recreational opportunities.

Interested students should contact Adam Jones by email (adamjones@uidaho.edu) for more information about the projects and instructions on how to apply.

“Jones, Adam (adamjones@uidaho.edu)”
<adamjones@uidaho.edu>

UKonstanz DaphniaEvolution

DAAD PhD Scholarship - Effect of nutrients on population genetic diversity and host microbiome of the Daphnia metaorganism

**Project Description:

The water flea Daphnia is a popular model system to study evolution, ecology, and development. Daphnia are globally widespread in freshwaters, have short generation times, and clonal lineages can be maintained indefinitely, which facilitates experimental evolution and laboratory assays of genes and traits that drive evolution over time. Here we are employing an existing mesocosm setup to study the effects of nutrient availability and community composition on population genetics and host microbiomes of Daphnia pulex and Daphnia magna to better understand the dynamics of abiotic and biotic factors on species success and survival (in collaboration with Jelena Pantel (<https://www.aup.edu/profile/jpantel>)). Briefly, selected genotypes of both Daphnia species are exposed in combination and alone to increased/decreased nutrient levels to assess how community composition affect patterns of genotype diversity and the microbiome within and between species. Importantly, this is a multigeneration experiment where selection effects from one generation to the next can be tracked. Further, the opportunity for manipulative experiments is provided (e.g., provisioning of selected microbes to assess probiotic effects, effect of additional stressor, etc.). The project aims to measure genotype/allele frequencies using whole genome pool sequencing, assess microbiome dynamics through marker gene sequencing, and to collect a suite of physiological parameters to assess how external factors shape species survival/dynamics.

The project is a collaborative effort between the Becks, Meyer, and Voolstra labs, integrated in the doctoral program of University of Konstanz and the Research Training Group R3 (www.rtg-resilience.uni-konstanz.de). The DFG Research Training Group R3 Resilience of Lake Ecosystems at the University of Konstanz studies the response, resilience, reversibility of aquatic ecosystems to changing abiotic and biotic conditions using Lake Constance.

**Requirements:

- MSc degree in Molecular Biology, Genetics/Genomics,

Microbiology, Limnology, or a related discipline (within last 6 years) - In order to be eligible for DAAD scholarship, applicants must not have resided in Germany for more than 15 months - Interest in Ecology, Evolution, Genomics, Metaorganisms. - Experience in molecular work and bioinformatics analysis is a plus. - High proficiency in spoken and written English is expected.

****Application:**

To apply, send the following documents as a single PDF file to applicationRTGR3@uni-konstanz.de and christian.voolstra@uni-konstanz.de - Cover letter, including statement of motivation (1 page) - Curriculum vitae (including list of publications) - Certificates of education - 2 letters of recommendation from faculty using the form found at <https://www.daad.de/medien/deutschland/-stipendium/formulare/recommendation.pdf>

****Further details:**

- Details on the DAAD Graduate School Scholarship Program, the application procedure and eligibility criteria: <https://www.daad.de/go/en/stipa57034100> - Starting date: as soon as possible, latest by first quarter of 2021

We are looking forward to your application!

chris.voolstra@gmail.com

UKonstanz PredatorPreyCoevolution

We are seeking a highly motivated and enthusiastic PhD student to work on predator-prey coevolution in microbial communities.—

Project Description: Reciprocal evolutionary changes of interacting species are major drivers for diversification and speciation and have mainly been studied in host-parasite systems and for mutualistic interactions. Although predator-prey interactions are commonplace and characterized by strong selection from both sides, predator-prey coevolution and its consequences on diversification are less well understood. In this project we plan to combine a long-term experimental evolution study of different microbial predator-prey systems with whole genome sequencing over time. The experimental design allows us to compare evolutionary changes within replicates of the same species as well as across species, giving us the opportunity to assess the repeatability of evolutionary change in terms of phenotypic changes, mutations arising and their trajectories. We further aim

to study how the coevolutionary past of predator and prey (changed baseline) determines the resilience of the predator-prey interaction to disturbances. This project is in collaboration with colleagues from the University Turku (Teppo Hiltunen) and Helsinki (Johannes Cairns, Ville Mustonen) and some of the experimental work will be done at the University of Turku.

Highly motivated candidates with a master's degree in microbiology, evolutionary biology or ecology are welcome to apply. Applicants should have a background in evolutionary theory or population dynamics and show an enthusiasm for basic research and ideally experience in working with microbial systems. The successful candidate should be able to communicate effectively with individuals from a wide range of disciplines.

Location: The Aquatic Ecology and Evolution group is part of the Limnological Institute at the University Konstanz. The collaborative research environment in the lab is highly integrative, international, and operates in English. Therefore, the ability to speak German would be a plus, but is not essential. Further information on researchers and research in the Becks lab can be obtained here: —<https://www.limnologie.uni-konstanz.de/en/ag-becks/> or by contacting Lutz Becks (lutz.becks@uni-konstanz.de).

Konstanz is a very beautiful and pleasant place to live as it borders the third largest lake in Central Europe and lies at the foothills of the Alps. The University of Konstanz is an equal opportunity employer and is rated as one of the best universities in Germany.

Prof. Dr. Lutz Becks Limnological Institute University of Konstanz Mainaustraße 252 78464 Konstanz / Egg Germany Mail: lutz.becks@uni-konstanz.de Phone: 07531 88 2828 —

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

UMaine EvolutionaryInformatics

Ph.D.assistantship in Ecological and Evolutionary Informatics available starting Fall 2021!

We seek an enthusiastic student interested in pursuing a PhD in the EcoEvoMatics lab (principal investigator, Dr.Andy Rominger) at the University of Maine (<https://www.ecoevomatics.org>). Our lab focuses on quantitative modeling and analysis of ecological and evolutionary processes, often making use of newly available biodiversity data produced through next generation

sequencing approaches.

Ideal start date for this PhD position is Fall Semester 2021, though an earlier start date is negotiable. The position includes secure funding for stipend plus tuition and health insurance coverage through June, 2024. The successful applicant will join a diverse and exuberant research community as part of the NSF-funded \$20 million Maine-eDNA program (<https://umaine.edu/edna>).

We are seeking a student with a background and interests in any of the following:

quantitative ecology and evolution
ecological bioinformatics
next generation sequencing-enabled biodiversity inventories
aquatic ecology
eco-evolutionary dynamics

Some exposure to statistics, quantitative methods and/or programming is expected, though mastery of these tools is not required and there will be ample opportunity to continue to build and refine your skills through mentorship and collaboration in our lab.

Our lab group is committed to diversity, equity, and inclusion in science and society. We welcome applications from all backgrounds, especially those historically underrepresented in science and academia. Please read more about our lab philosophy on our group website at <https://www.ecoevomatics.org/philosophy>. Interested students are encouraged to send the following materials to Andy Rominger (andrew.rominger@maine.edu):

CV or resume
unofficial undergraduate and (if applicable) graduate transcripts
a cover letter discussing their interest in joining the EcoEvoMatics lab and the Maine-eDNA program; this letter is a space to discuss your research interests, desired outcomes of a PhD in our group, and your engagement with diversity, equity, and inclusion.

Review of applications will begin January 13, 2020 and continue until the position is filled.

Please see the full position advertisement for more details: https://www.ecoevomatics.org/2020/10/20/phd_ad.html. The University of Maine is an EEO/AA employer and does not discriminate on the grounds of race, color, religion, sex, sexual orientation, transgender status, gender expression, national origin, citizenship status, age, disability, genetic information or veteran's status in employment, education, and all other programs and activities. The following person has been designated to handle inquiries regarding non-discrimination policies:

Director of Equal Opportunity 101 North Stevens Hall
University of Maine Orono, ME 04469-5754 (207) 581-1226, TTY 711 (Maine Relay System)

Andy Rominger <ajrominger@gmail.com>

UMunich Evolutionary Epigenetics

A PhD position investigating the relevance of epigenetic variation in natural populations to evolution is available in the research group of Jochen Wolf at Munich University, Germany. This project is part of a collaborative effort involving several avian research groups in Europe.

Background

Since the merger of Darwinian evolution and Mendelian hereditary principles at the onset of the 20th century, genetic variation has been at the core of evolutionary research. Genome-wide scrutiny of genetic variation segregating in natural populations has provided fundamental insights into the evolutionary processes underlying adaptation and speciation. Yet, calls for incorporating epigenetic modifications of the DNA blueprint into an extended evolutionary synthesis have repeatedly been made. And indeed, epigenetic variation constitutes an important modifier of phenotypic variation and may promote plastic responses allowing populations to explore novel niche space. Evolutionary relevance of epigenetic modification, however, will depend on the relationship between environmental inducibility and transgenerational stability independent of the underlying genetic variation. Comprehensive data on both of these aspects are scarce.

The Project

The research program run by the successful candidate proposes to fill this knowledge gap using a broad geographic sampling regime of several thousand individuals from pedigree-informed natural populations of two avian species as a model: the great tit, *Parus major*, and the blue tit, *Cyanistes caeruleus*. Specifically, we will use this setup to characterize the intrinsic and external forces shaping diversity in 5mC DNA methylation across various scales of integration. First, we will quantify the inheritance patterns of these epigenetic marks within families (broods) leveraging additional power from extra pair young. Second, we will determine the extent of population-level epigenetic variability across diverse environments. Third, by adding populations of the European crow, *Corvus (corone) spp.* there is the additional possibility of assessing the degree of genetic and epigenetic divergence across 44 million years of evolution.

Qualifications The successful applicant holds a mas-

ter degree in a relevant subject and is skilled in bioinformatic analyses with large genome-wide data sets. Previous experience with epigenetic work, quantitative genetics and/or statistical modelling (e.g. linear mixed models) is a clear asset.

Research environment of the host lab The Wolf lab applies an integrative approach to explore micro-evolutionary processes and genetic mechanisms underlying species divergence, adaptation and genome evolution (1, 2). Using large-scale genomic approaches combined with field based experiments, we characterize genetic diversity within and between populations and assess its relationship to phenotypic divergence (3-6) - sometimes interpreting the data under a conservation angle (7, 8). In addition, we explore methodological aspects of data analyses (9, 10) and engage in comparative approaches to study evolution across larger timescales (11, 12). Empirical systems currently include natural populations of birds (swallows, cuckoos and corvids (4-6, 13, 14)), marine mammals (pinnipeds and killer whales) (15, 16) and recently added fission yeast (17, 18). More information on the research activities in the lab can be found at http://www.evol.bio.lmu.de/research/j_wolf/index.html. The University of Munich is consistently ranked among the top Universities worldwide, in particular the life science branch with its newly inaugurated campus offering excellent technical facilities and many interaction possibilities including the gene center, several Max-Planck-Institutes and the Helmholtz Centre (<http://www.campusmartinsried.de/en/336-2/-#>). With the highest concentration of supercomputing in Germany the Leibniz Supercomputing Centre and its local partners provide access to state-of-the-art computing facilities (<https://www.lrz.de/english/>). Munich, Bavaria's capital, is a vibrant, yet relaxed city with many traditions still alive, a high quality of living and the Alps nearby.

How to apply Applications including a CV, a statement of motivation and the contact details of at least two references in a single .pdf should be sent to evolution@bio.lmu.de with subject header 'epigenetic position'. The position remains open until filled, starting date as soon as possible.

Literature reflecting lab interests

1. J. B. W. Wolf, H. Ellegren, *Nat. Rev. Genet.* 18, 87-100 (2017).
2. J. V. Peñalba, J. B. W. Wolf, *Nat. Rev. Genet.*, 1-17 (2020).
3. A. B. A. Shafer, J. B. W. Wolf, *Ecol. Lett.* 16, 940-950 (2013). 4. U. Knief et al., *Nat. Ecol. Evol.* 3, 570-576 (2019).

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UnitedArabEmiratesU PlantFungalInteractions

A PhD position is available at the Transcriptome Analysis Lab led by Prof Khaled A. El Tarabily, at the United Arab Emirates University, UAE. The title of the project is:

Biological control and transcriptome analysis of date palm plants infected with *Fusarium solani* in the UAE, based on a fund beginning August 2021. The PhD student will receive a monthly stipend for 4 years (the duration of the project). The PhD candidate should be familiar with plant pathology, biological control, disease management, and most importantly next-generation sequencing (NGS) technologies (i.e., genomics and transcriptomics).

For more information, please contact Prof El Tarabily by email at ktarabily@uaeu.ac.ae.

Christos Georgiadis, PhD, MRES Zoologist, Entomologist Instructor of Invertebrate Biology

Room #0013, F1 Building, College of Science, Department of Biology United Arab Emirates University P.O.Box 15551, Al-Ain United Arab Emirates

Tel.: +971 (0)3 713 6307, Cell: +971 (0)54 474 2121
Email: cgeorgiadis@uaeu.ac.ae

Christos Georgiadis <cgeorgiadis@uaeu.ac.ae>

UNotreDame Evolution Ecology Environment

Graduate Program in Ecology, Evolution, and the Environment at the University of Notre Dame

The Department of Biological Sciences at the University of Notre Dame offers a wide range of research oppor-

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

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

*We'll be hosting three online Q&A sessions on student life, mentoring, and community at Notre Dame Biology. Please join us! Please register using the links below. * Wednesday, October 14, 8:00 PM EDT Student Life <https://forms.gle/DRjG9bLcZfVygJa3A> Tuesday, October 27, 5:00 PM EDT Mentoring <https://forms.gle/xsUH9XTQjCDM64jQ8> Monday, November 9, 7:00 PM EST Community <https://forms.gle/uT97CeXX58ie2W1J7> The following faculty members have vigorous graduate programs in:

Beth Archie behavioral ecology, population biology, evolution, microbiome dynamics Nora Besansky evolutionary, ecological and functional genomics of malaria vectors Sunny Boyd behavioral ecology, neuroendocrinology and behavioral neuroscience Jeff Feder ecological and evolutionary genetics, speciation Mike Ferdig systems genetics of malaria parasite drug resistance Hope Hollocher population genetics, disease ecology, and microbiome interactions Stuart Jones aquatic ecology Cristian Koepfli molecular epidemiology of infectious disease Gary Lamberti stream and wetland ecology, ecotoxicology, and plant-animal interactions Jason McLachlan

global change ecology, ecological forecasting David Medvigy terrestrial ecosystem modeling, ecosystem-climate interactions Alex Perkins disease ecology, epidemiological modeling, population biology of disease vectors Mike Pfrender ecological and evolutionary genomics, adaptation, phenotypic plasticity Matt Ravosa evolution, biomechanics, growth and aging of the vertebrate skull and musculoskeletal system Adrian Rocha arctic terrestrial ecology Jason Rohr - ecology and public health Jeanne Romero-Severson genomics of adaptive variation in natural populations of forest trees Nate Swenson - temperate and tropical tree biology, community ecology, functional ecology, phylogenetics Jennifer Tank - stream ecosystem ecology and biogeochemistry

All graduate students are funded with competitive stipends. A variety of fellowship opportunities are open to top applicants. For more information regarding the Biology Graduate Program see <http://biology.nd.edu/> and <http://graduateschool.nd.edu/>. The deadline for receipt of all application materials for the Ph.D. program is December 1st, 2020, although earlier submission is encouraged to ensure full consideration for available fellowships. Please begin your application by directly contacting faculty of interest.

Elizabeth Archie Associate Professor Department of Biological Sciences University of Notre Dame Notre Dame, IN Tel. (574) 631-0178 Office. 179 Galvin <http://blogs.nd.edu/archielab/> "earchie@nd.edu" <earchie@nd.edu>

UOldenburg HerbariumGenomics

We are hiring at the Faculty V, Institute of Biology and Environmental Sciences (IBU), Research Group Plant Biodiversity and Evolution, Carl von Ossietzky University Oldenburg, from 01.01.2021 to 31.12.2023, aPhD student (m/f/d)(TV-L E13, 65%) - 36 months

The position is to be filled within the DFG priority program (SPP1991) Taxon-omics. In the project "Making efficient use of herbarium specimens - Hybrids in Veronica as case example" the genomes for three species of the genus Veronica are to be sequenced. Two of the three species form a region with frequent hybrids in the Southern Carpathians. Using multiplex shotgun sequencing and morphometry, recent and historical plants (herbarium specimens) will be analyzed and the spatial and temporal evolution of the hybrid region will be analyzed. The project therefore offers opportunities to

combine and learn genome sequencing, phylogenomic analysis, as well as collection and field work.

Hiring requirements

Completed scientific university studies with a degree in biology

or similar subjects qualifying for a doctorate (Master or Diploma)

Fluent written and spoken English

Experience in scientific publishing

Profound knowledge of phylogeographic and evolutionary biological literature

Experience in high-throughput sequencing analysis

Knowledge in handling relevant software, also on LINUX or R basis

Communication and team skills

Independence and organizational talent

We offer

- Opportunity to do a doctorate (Dr. rer. nat or PhD)
- an interesting research environment in evolution and genomics
- Close cooperation within the priority program with comprehensive training opportunities and the opportunity to visit other German laboratories (see www.taxonomics.com)
- a collegial working atmosphere
- an established training program (<https://uol.de/oltech>)

The Carl von Ossietzky University of Oldenburg is striving to increase the proportion of women in science. Therefore, women are strongly encouraged to apply. According to § 21 para. 3 NHG, female applicants with equal qualifications should be given preferential consideration. The position is suitable for part-time work.

Severely disabled persons will be given preferential consideration if they have the same qualifications.

Please send your application with your documents (CV, certificates, proof of qualifications) in pdf format to Prof. Dr. Dirk Albach (e-mail: dirk.albach@uol.de) by 2.11.2020 at the latest. He is also available for further information.

Dirk Albach <albach@gmx.net>

UPittsburgh EvolutionaryBiol

Seeking PhD Students in Ecology & Evolutionary Biology at The University of Pittsburgh

The Department of Biological Sciences < <https://www.biology.pitt.edu> > Ecology and Evolutionary Biology Program (EE) at the University of Pittsburgh is seeking applications from prospective graduate students interested in pursuing a Ph.D. We have a strong and collaborative research program that seeks students interested in a wide variety of topics including behavioral ecology, coevolution, community ecology, conservation biology, disease ecology, eco-evolutionary dynamics, evolutionary biology, evolutionary ecology, evolutionary development, genomic evolution, microbiome studies, molecular evolution, physiology, and quantitative ecology. As a student here, you will develop skills in critical thinking, lab and field research, experimental design, grant and publication writing, and computational and statistical analysis. You will also have the opportunity to apply cutting-edge methods in biological sciences including genomics and machine learning.

The goal of our department is to recruit, welcome, and develop students and researchers from a range of backgrounds, career stages, and research interests. We aim to provide an inclusive and supportive environment for all scholars. Once admitted into our program, you will receive five years of guaranteed support, including a competitive salary, tuition waiver, and health benefits regardless of citizenship. You will also be encouraged and supported as you apply for internal and external independent funding opportunities – our students frequently receive multi-year predoctoral fellowship awards from major granting institutions (e.g. NSF GRFP). Students may participate in our Teaching Minor program that helps develop teaching portfolios. We focus on career development and our graduate students go on to secure competitive postdoctoral research fellowships, science communication fellowships, and careers as research or teaching faculty, science communicators, staff scientists at conservation organizations and government agencies.

To apply to the Ecology & Evolution program, we highly encourage and welcome all interested students to reach out to potential advisors early in the application process. If you are enthusiastic about ecology and evolutionary biology, we are excited to meet you! Applications for

the 2021-2022 school year are due December 9, 2020 and may be found here < https://app.applyyourself.com/-AYApplicantLogin/fl_ApplicantLogin.asp?id=up-as >. More details about applying are below.

*** FIELD RESEARCH OPPORTUNITIES *** We conduct our research in temperate and tropical ecosystems, forests, grasslands, wetlands, lakes, ponds, rivers, and streams in urban and rural areas. We work globally—including Mexico, Panama, Costa Rica, and China— as well as around the US—California, Hawaii, Michigan, Florida. Many of our faculty and students utilize nearby field sites including our own field station—the Pymatuning Lab of Ecology < <https://www.biology.pitt.edu/facilities/pymatuning> >—as well as other nearby natural areas including the Carnegie Museum of Natural History’s Powdermill Nature Reserve < <https://carnegiemnh.org/visit-powdermill/> >, the US Forest Service’s Allegheny National Forest < <https://www.fs.usda.gov/allegheny> >, Audubon Society of Western Pennsylvania’s Beechwood Farms < <http://www.aswp.org/pages/beechwood> >, and Pittsburgh City Parks < <https://www.pittsburghparks.org/your-pgh-parks> >. We collaborate with biologists at nearby institutions like The Carnegie Museum of Natural History < <https://carnegiemnh.org> >, The National Aviary < <https://www.aviary.org> >, the Pittsburgh Zoo < <https://www.pittsburghzoo.org> >, Civil and Environmental Consultants, Inc. < <https://www.cecinc.com> >, Pittsburgh Parks Conservancy < <https://www.pittsburghparks.org> >, and the Western Pennsylvania Conservancy < <https://waterlandlife.org> >.

*** LAB RESEARCH OPPORTUNITIES *** The Pitt BioSci department is equipped with a wide variety of research facilities < <https://www.biology.pitt.edu/facilities> >. These include a modern greenhouse complex consisting of 5 separate year-round

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USussex Southampton BacterialSexualReproduction

A BBSRC funded PhD studentship is available at the Universities of Sussex and Southampton to work with

Prof. Adam Eyre-Walker (Sussex) and Dr. Franklin Nobrega (Southampton) on the causes and consequences of “sexual” reproduction in bacteria. The project will involve both DNA sequence analysis and experimental evolution. The studentship is funded for 4 years and involves a substantial training element. Further details of the project can be found here and information about the program here. The deadline for applications is Jan 4th 2021. Informal enquiries can be directed to Adam Eyre-Walker (a.c.eyre-walker@sussex.ac.uk)

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

UtahStateU EcoLandscapeGenomics

The Saarman lab is recruiting highly qualified individuals for graduate study (M.S./Ph.D.). Research areas include ecological genomics and landscape genetics/genomics in sand flies in the Magdalena Valley in Colombia. Sand flies are the vectors of leishmaniasis, and there are sever gaps in knowledge of their distribution, ecological genomics, and vectorial capacity.

The Department of Biology offers excellent opportunities for education, training, funding, and collaboration. Masters and PhD students are provided with a competitive stipend, tuition coverage, and benefits (throughout the year including the summer). At this time, students in the Saarman lab will be funded by teaching assistantships, but are strongly encouraged to apply for graduate research funding and doctoral dissertation improvement grants. USU is located in the city of Logan in the Cache Valley of northern Utah, which offers a reasonable cost of living, abundant recreation opportunities across all four seasons, and incredible access to numerous National Parks across Utah, Montana, and Wyoming.

Candidates are expected to have 1) an undergraduate degree in Biology, Ecology and Evolutionary Biology, or related fields 2) strong verbal and written communication skills, 3) the ability to work independently and in a collaborative team, and 4) a strong interest in ecological genomics, landscape genetics, and/or population genetics. Individuals who speak Spanish and have experience using the R programming language are especially encouraged to apply. Please visit the lab webpage for more information www.saarmanlab.com to get acquainted with our research. Then email Dr Norah Saarman (norah.saarman@usu.edu) and send an up-to-date CV, a brief (1-page or less) statement of previous

research experiences and future interests/goals, an unofficial undergraduate transcript, and contact information for 3 references.

norah.saarman@usu.edu

UZurich PlantEvolution 2

PhD position in Plant Evolutionary Biology, University of Zurich. University of Zurich, Depts. of Systematic and Evolutionary Botany & Plant and Microbial Biology

RESEARCH PROJECT: The relative contribution of genetic and epigenetic variability to adaptation.

Genetic variation in form of de novo mutations or standing genetic variation is the major source of variation in complex traits that can enable adaptation through the process of selection. This is a fundamental tenet of the modern evolutionary synthesis that combines Darwin's ideas with that of Mendelian genetics. Nevertheless, in recent years, the assumption that only the genetic code can contribute to inheritance of biological traits has been challenged with the discovery of trans-generational epigenetic inheritance. Phenotypes induced by environmental factors can be passed on over multiple generations owing to relatively stable, long terms changes in gene expression. It is known that some types of epigenetic marks behave like genetic mutations (epimutations), they are variable in natural populations, and are heritable to the next generation with considerable influence on the phenotype. Owing to these reasons, it has been put forward that epigenetic variation may have the ability to influence the heritable variation of complex traits and thus can potentially contribute to adaptation. Nevertheless, the respective role of epigenetic and genetic variation in the process of adaptation is presently not well understood. Furthermore, the relative and quantitative contribution of epigenetic and genetic variability to adaptive processes is not known. In this project we will use plant model systems (the moss *Physcomitrella patens* and the liverwort *Marchantia polymorpha*) in experimental evolution experiments coupled with high-throughput sequencing to address this fundamental issue in detail. During the experimental evolution experiments, we will record and quantify phenotypic changes and their overall relative contribution to adaptation in epigenetically and genetically diverse populations. We will also carry out whole-genome bisulfite sequencing, gene expression profiling, and DNA re-sequencing experiments on a subset

of individuals to investigate the genomic basis of phenotypic change. Finally, we will test the stability of the acquired phenotypic traits. This research will be carried out in a collaboration between two groups of the URPP "Evolution in Action" by combining their complementary expertise on the model system and experimental evolution.

This project is funded by the University of Zurich's Research Priority Program (URPP) "Evolution in Action: from Genomes to Ecosystems" to Peter Szovenyi and Ueli Grossniklaus (<https://www.evolution.uzh.ch/en.html>). The URPP Evolution in Action is an umbrella organization bringing together evolutionary research across many departments and topics ranging from linguistics to molecular biology. It consists of professors, PhD students, and postdoctoral fellows with the goal to facilitate interdisciplinary research and create new ideas. The PhD position is fully funded for four years including retreats, courses, and bioinformatics support by the URPP.

The Dept. of Systematic and Evolutionary Botany hosts research groups working on the evolutionary and ecological drivers of biodiversity, on the macroevolution of plants, on plant-insect interactions/pollination, on the evolution of mating systems, hybridization and speciation. The Dept. of Plant and Microbial Biology hosts many groups working on plant molecular and developmental biology, epigenetics, molecular evolution, community genomics, plant defence and plant adaptation. Both institutes are housed in the beautiful Botanical Gardens and host a diverse community of researchers in plant biology.

Ideal candidates will have an MSc in biology with a specialization in evolution, genetics, and/or bioinformatics. This position primarily involves experimental evolutionary research, bioinformatic work, and requires advanced skills in handling, analyzing, and interpreting high-throughput next-generation sequencing data. Nevertheless, in the second phase of the PhD, reverse genetic experiments are planned and thus good skills in making constructs, carrying out genetic transformation, and microscopy are also required. In case not all these skills are covered, the willingness to quickly acquire them is absolutely necessary. Students should be willing to work both in the wet lab and in the office doing computational work. The position is for four years. Selected candidates will enroll in the PhD Program Evolutionary Biology of the Life Science Zurich Graduate School.

CLOSING DATE: The position is opened until filled, but all application material including CV, a summary of research experience, a letter of motivation, copies of relevant publications (published or submitted),



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WilliamMaryU PlantConservation

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

The Puzey Lab (<https://puzeylab.weebly.com>) is looking for 1-2 new M.S. graduate students to begin in Fall 2021. We are looking for students who are passionate about plants, conservation, and/or genomics. The lab uses a range of big-data approaches to address pressing conservation questions. Specifically, we are interested in using milkweed plants (*Asclepias*) and its associated insect herbivores (monarch butterfly, milkweed beetle, milkweed bug, etc.) as a model to understand how the Anthropocene has impacted plant and insect interactions.

Experience with GIS and/or Python is desirable.

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

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

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

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

Joshua Puzey <jrpuzey@gmail.com>

Jobs

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IAST Toulouse EvolutionaryBiol	45	TexasTechU EvolutionaryVirologist	51
IBE Barcelona ResAssist Phylogenomics	46	UCalifornia Davis QuantGenetics	52
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EmoryU EvolutionaryBiology

The BIOLOGY DEPARTMENT OF EMORY UNIVERSITY, Atlanta, GA is a broad biological sciences Department (<http://biology.emory.edu/>) within a College of Arts and Sciences. We seek outstanding experimental, theoretical and/or computational biologists for two positions at any rank. Research in the Department currently covers population biology, ecology, and evolution, as well as computational and systems neuroscience, and molecular, cellular and developmental biology. This search is open for any area of biology. Successful applicants will have a Ph.D., post-doctoral experience, a record of productivity, a strategy to enhance inclusive excellence, and a commitment to evidence-based undergraduate/graduate teaching and mentoring. This search is part of a multi-year Emory initiative to foster equity and to promote the success of our diverse student population. We encourage outstanding candidates who are early in their postdoctoral research training to apply, even if their primary findings are not yet published.

The Department offers access to state-of-the-art facilities and academic interactions with over 500 faculty engaged in biology and biomedical research at Emory University and nearby institutions, researchers in the School of Medicine, Rollins School of Public Health, Yerkes National Primate Research Center and the Centers for Disease Control and Prevention. The successful applicant will train PhD or MD/PhD students through one or more programs within the Graduate Division of Biological and Biomedical Sciences (<http://biomed.emory.edu/>), other relevant STEM departments, or the Biomedical Engineering Graduate Program (<https://bme.gatech.edu/>). Emory is located on a beautiful campus in Atlanta, one of the United States' most vibrant, diverse, and affordable metropolitan areas.

Emory faculty participate in numerous programs that seek to increase inclusive excellence in STEM fields. The Biology Department is committed to the professional development of our faculty, staff and trainees, including

BIPOC (Black, Indigenous and People of Color), disabled, and LGBTQ+ individuals. We invite you to learn more about current policies and practices within our University and Department that support students, post-docs, staff, and faculty (<http://www.biology.emory.edu/-biology-at-emory>).

Applicants should submit: 1) a cover letter highlighting research, teaching, and equity/inclusion accomplishments and/or goals; 2) a CV; 3) a description of prior research and plan for developing an independent, externally funded research program; 4) a statement of teaching experience, interests and philosophy; and 5) a statement describing experience and vision regarding the teaching, mentorship, and support of trainees from diverse backgrounds and/or a statement of personal experiences with, and/or contributions to, issues related to social and racial justice, equity, diversity and inclusion. Items 3-5 should not exceed six pages combined. Applicants should arrange to have three confidential letters of recommendation submitted on their behalf. All files or inquiries should be submitted electronically at: Interfolio: <https://apply.interfolio.com/80049> Review of applications will begin on November 10 and applications received up to 30 days after review begins will be given full consideration. Emory University is an Equal Opportunity/Affirmative Action/Disability/Veteran employer. Women, minorities, people with disabilities, and veterans are strongly encouraged to apply.

Dr. Nicole Gerardo Professor, Department of Biology, Emory University

ngerard@emory.edu

FortHaysStateU Chair EvolutionaryBiol

Position Description: Fort Hays State University is seeking applicants for Chair of the Department of Biological Sciences at the Professor or Associate Professor rank. The position is a 12-month, tenure-track appointment. The successful candidate must have a

distinguished record of teaching, research, and service in the biological sciences with an understanding and appreciation for on-campus and online delivery systems. The Chair will also have excellent communication and interpersonal skills, value diversity, have demonstrated leadership experience, and understand the needs of faculty, staff, and students. Women and members of other underrepresented groups (as defined by the National Science Foundation) are encouraged to apply.

Minimum Qualifications:

- Earned Ph.D. in biology or other closely-related field;
- Successfully earned tenure at a regionally-accredited institution;
- Recent record of teaching excellence at the undergraduate and graduate levels;
- Recent record of research accomplishments.

Preferred Qualifications:

- Record of academic administrative experience including both fiscal and supervisory responsibilities;
- Experience with student recruitment and retention initiatives;
- Experience in formalized assessment;
- Demonstrated commitment to STEM-related diversity initiatives;
- Record of external funding through grants and/or fundraising;
- Experience with online education;
- Experience supervising graduate-student research.

Rank: Professor or Associate Professor

Appointment Date: July 1, 2021

Priority Application Deadline: November 1, 2020

Salary: Commensurate with experience

Benefits: Competitive benefit package <http://www.fhsu.edu/humanresourceoffice/Prospective-Employees/> Responsibilities: The Chair of the Department of Biological Sciences reports to the Dean of the Werth College of Science, Technology, and Mathematics. The Chair is responsible for the overall management and operation of the department, including:

- Management of the department budget and other financial resources;
- Overseeing course scheduling and curriculum management;
- Initiating and facilitating new, high-quality academic programs, certificates, partnerships, and other on-campus or online education opportunities;
- Leading annual program assessment;
- Performing faculty and staff performance and merit reviews;
- Leading student recruiting and retention efforts for the department;
- Promoting inclusion and diversity within the department, college, and university;
- Teaching an average of 3 credit hours per semester, including the summer. Courses may include introductory courses as well as advanced courses in specialized areas, and they may be taught on- campus or online;
- Initiating and

facilitating externally funded grants and fundraising; - Ensuring department initiatives align with University and Regents goals and plans; - Participating in college and university service activities; - Engaging in original research.

Application Process: To apply for this position, please visit <https://fhsu.wd1.myworkdayjobs.com/CAREERS>. Only electronic applications submitted through the webpage will be accepted.

Required Application Documents:

- Cover letter addressing job responsibilities, qualifications, and how the applicant is suited to the position;
- Current curriculum vitae;
- The names and contact information of at least three professional references. - Applicant documents should be submitted in one PDF.

If you have questions regarding the position, please contact: Name: Ms. Hilary Gillock Email: HHGillock@fhsu.edu

Lorelei E. Patrick, PhD she/her

Assistant Professor Department of Biological Sciences
Fort Hays State University Hays, KS

Lorelei Patrick <lorelleipatrick@gmail.com>

lorelleipatrick@gmail.com

Geneva Mycology Curator

Dear Colleagues,

The Conservatory and Botanical Garden of Geneva (CJBG) has opened a full-time position as Curator of Mycology. The deadline for applications has been extended until the 30th October 2020.

The position consists of collections curation (mycological collections), systematics research and teaching activities. The job advertisement, in French, is attached in pdf below and gives more specific details on the position. We are seeking motivated candidates with experience in collections management, systematics research in the field of mycology and with an interest in university teaching/mentoring. The working language of the institution is French, with English and German language skills beneficial. Please note, applications where French is not a first language are encouraged to apply, if also demonstrating a willingness to learn the language.

Applications (a motivation letter, CV and other supporting information relevant to the position) should be sent - by post - to:

Conservatoire et Jardin botaniques

Chemin de l'Imperatrice 1

Case postale 71

1292 Chambesy-GE

Switzerland

The closing date for applications is the 30th October 2020. Applications can be in French or English.

The CJBG looks forward to hearing from you!

Cordially, Michelle Price Head of Cryptogamy (G)

"Michelle.Price@ville-ge.ch" <Michelle.Price@ville-ge.ch>

reinfection and non-cleared *O. volvulus* infected humans. The successful candidate will also be expected to contribute to the formulation and submission of research publications and research proposals as well as help manage and direct this project as opportunities allow. The post holder will be based in the Institute of Biodiversity Animal Health & Comparative Medicine within the College of Medical, Veterinary and Life Sciences, working in Poppy Lamberton's lab (www.poppylamberton.com) and a member of the Wellcome Centre for Integrative Parasitology. Any potential candidates are encouraged to get in touch with any questions that they have by emailing poppy.lamberton@glasgow.ac.uk. Vacancy Reference: 041364, Closing Date: 12 November 2020 https://my.corehr.com/pls/uogrecruit/-erq-jobspec.version_4.jobspec?p_id=041364 Poppy Lamberton <Poppy.Lamberton@glasgow.ac.uk>

Glasgow NTDDrugEfficacyGenomics

Glasgow_NTDDrugEfficacyGenomics You will join a multidisciplinary research group which focuses on reducing transmission and improving treatment success for neglected tropical diseases (NTDs), primarily onchocerciasis and schistosomiasis. We are committed to supporting diversity and inclusion and strongly encourage applications from underrepresented groups and from disease-endemic countries.

The post is funded by the Drugs for Neglected Diseases initiative (DNDi) project: 'Investigating genetic composition of *Onchocerca* worm infections: Improving the ability to test macrofilaricidal drug efficacy', and the post holder will work with the supervisory team of Dr Poppy Lamberton, Dr Lisa Ranford-Cartwright, Prof. Eileen Devaney and Prof. Mike Barrett. The job purpose is to use appropriate statistical and modelling approaches applied to WGS data from *Onchocerca ochengi* and pre- and post-treatment *Onchocerca volvulus* microfilariae from clinical trials. Specifically, the post holder will be expected to contribute to the processing of WGS data, statistically analyse WGS data, and where appropriate generate or build on mathematical model frameworks for publication. They will use sib-ship analysis and other genetic methods for identifying worm burdens and the minimum numbers of microfilariae required to infer these. This post will help ascertain the potential for, and error margins of, such molecular techniques and statistical models to differentiate between

IAST Toulouse EvolutionaryBiol

The Institute for Advanced Study in Toulouse (IAST), interdisciplinary Institute, welcomes applications from researchers from a large range of disciplines, including Evolutionary Biology. We seek candidates with a strong research background in their own discipline, but willing and able to develop research projects drawing on IAST's substantial interdisciplinary resources, including particularly the proximity of strong groups in economics (Toulouse School of Economics, TSE). We are open to a variety of research methods, including theory, field and laboratory experiments, observational field work, and the analysis of large secondary data sets. All research interests relevant to the broad study of human behavior are welcome, but interests close to those already developed at IAST will be given special consideration, including theoretical models of evolution, the family, sexual selection, evolution of cognition. Anticipated start date: September 1st, 2021 Please visit: <http://www.iast.fr/research-fellowships> for more information and applications. Deadline for applications: 15th November 2020

Delphine POUTS Assistante de Direction Executive Assistant IAST 21 all?e de Brienne 31015 Toulouse Cedex 6 Ph: 0033 5 61 12 86 27 Delphine.pouts@iast.fr

Delphine Pouts <delphine.pouts@iast.fr>

IBE Barcelona ResAssist Phylogenomics

Application deadline: 15th November 2020

Reference: Research Assistant Position

Contract: Full-time, 12 months (possibility of yearly renewal)

Location: Institute of Evolutionary Biology (CSIC-UPF), Barcelona, Spain.

Starting date: January 2021

The Metazoa Phylogenomics Lab at the Institute of Evolutionary Biology (IBE) is seeking to hire a Research Assistant.

About IBE:

The Institute of Evolutionary Biology (IBE) was founded in 2008 as a joint Institute of the Spanish National Research Council (CSIC) and the Pompeu Fabra University (UPF). It is located in Barcelona (Spain), in front of the Mediterranean.

The mission of the IBE is to address biodiversity studies describing functional and evolutionary genomics at all levels of observation: molecular, biochemical, physiological, and morphological. The IBE is the only research center in Catalonia and Spain which completely devotes its research to evolutionary biology, and it is currently a reference in Southern Europe. Nowadays, IBE activity involves more than 130 people and 23 research groups distributed in 5 scientific programs related to Evolutionary Biology research. Our employees enjoy access to state-of-the-art technology and a diverse range of specialist training opportunities, including support for leadership and management.

About the Metazoa Phylogenomics Lab:

The overarching goal of the lab is to understand how animals reshape their genomes to generate their vast diversity and to adapt to the different environments. For that, we generate and interrogate genomic and transcriptomic data through the lens of phylogenomics and comparative genomics. Our favorite creatures are arthropods and annelids, but our interest often transcends the level of phylum to understand animal genome evolution at a macroevolutionary scale. We are committed to maintaining a respectful, inclusive, and friendly working environment for all staff and students, as well as

promoting your personal and career development.

Rosa Fern Á'ndez joined IBE as a Group Leader in January 2020, so this is a chance to help build a lab from the ground up and contribute your knowledge and passion to the group and its culture. The lab is a part of the Animal Biodiversity and Evolution Program at IBE. We are currently funded by the Spanish Ministry of Science and by an ERC Starting Grant to understand the genomic basis of terrestrialization across animals.

About the role:

As a Research Assistant, your role will be to manage the lab's day to day affairs, including managing a wet molecular lab. You will be in charge of the wet lab organization and experiments, which will include DNA/RNA extractions, library preparation and sequencing (Illumina and Nanopore), and managing bacterial cultures (for the protein engineering experiments). You will be in charge of contacting vendors and placing orders and help the PI with grant administration (ie, help process invoices, etc.). You may be asked to supervise and mentor others in the lab with experiments and tasks, including postdoctoral researchers and PhD students. Depending on your project involvement, you may also be asked to help prepare or edit manuscripts (for which you would receive authorship credit where appropriate) and talks for presentations.

The ideal candidate:

The ideal candidate will have at least a BSc (undergraduate) degree in life sciences with wet lab experience. A Master's or PhD in life sciences or equivalent experience is desirable. You will have experience with molecular biology and genetics techniques (ideally including DNA and RNA extraction, library preparation for genome/transcriptome sequencing, Nanopore sequencing, and bacterial cultures), strong record-keeping skills (e.g. lab notebook, collections maintenance, data storage and organisation) and a strong command of written and spoken English. You'll also be comfortable maintaining the lab on a day to day basis, including developing standard operating procedures, ordering and maintaining laboratory supplies, managing and disposing of chemical inventory safely.

You will be comfortable working both independently and as a member of a larger team, as well as having good time management, attention to detail, and prioritisation skills. You'll be comfortable collaborating with international and local colleagues from diverse cultures and backgrounds. You will be able to travel locally and internationally for e.g. collaborations or meetings.

Additional information:

The position is available for 12 months, with the possibility of further renewal for several consecutive years. Starting date is expected in January 2021 or as soon as possible afterwards.

Interviews will be held in Late November/early December either in person or via video conference depending on travel needs and current restrictions; no particular preference will be given to candidates who are able to interview in person.

If you are interested in the position, send your CV and motivation letter

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

ImperialC London Tech DiseaseEvolution

COVID RESEARCH TECHNICIAN

1 year Full time, fixed term

Salary

up to GBP32,080 plus benefits

Imperial College London, Department of Life Sciences (South Kensington) Category Professional / Support Services / Technician

Job summary

Applications are invited for a COVID-19 laboratory technician to join our recently awarded NERC grant “Mapping the prevalence of SARS-CoV-2 in sewage and environmental samples”, led by Professor Vincent Savolainen and in collaboration with several groups at Imperial College (Ransome, Bell, Woodward, Jones).

Mapping the prevalence of COVID-19 cases is essential for designing and tracking the efficacy of control policies, such as social distancing and isolation. Community-level estimates of disease prevalence should be sufficient to develop these mitigation strategies especially when the disease is widespread and infection is driven by community transmission. Given that there is now good evidence that SARS-CoV-2 RNA is detectable in faeces for prolonged periods (even for otherwise asymptomatic individuals), it may be possible to map the prevalence of

COVID-19 using sewage samples. You will be part of a multidisciplinary team of ecologists, virologists and modellers, who are testing sewage and connected freshwater bodies for SARS-CoV-2 across the UK.

Your main role will be to help run high-throughput robotically automated RT-PCR assays to quantify the presence of SARS-CoV-2 RNA fragments in sewage and its derivatives across the UK. This will allow us to make reliable inferences about the population-level prevalence of SARS-CoV-2 by modelling RNA degradation from toilet to sample. The potential for sewage outflows in the environment to contribute to transmission to humans and wildlife will also be investigated by assessing viral infectivity from environmental samples. You will help to run SARS-CoV-2 infectivity assays, alongside our Postdoctoral Researcher, in our dedicated containment level 3 (CL3) laboratory at Imperial College. You will also help coordinate the collection and delivery of sewage and environmental samples from across the UK. Please see our website <https://envirology.github.io/research.html> for more information about our team and the project.

Duties and responsibilities

To engage in research quantifying the presence and infectivity of SARS-CoV-2 in sewage, connected freshwater bodies and animal faeces.

To carry out RNA extractions and RT-PCR assays using robotic automation.

To culture cell lines for viral controls and infectivity assays.

To complete viral infectivity assays in our dedicated CL3 facility.

To manage the shipment of samples by partners across the UK.

To work alongside our Postdoctoral Researcher to collect environmental samples in London and SW England

Essential requirements:

- A science degree (BSc, MSc, or equivalent) - Relevant technical or scientific role in Higher Education or Industry laboratories - A track record of working in laboratories (CL2 and/or CL3) - Experience in at least one of the following areas: molecular biology, cell culturing, or environmental sampling of microbial communities.
- Excellent verbal communication skills.
- Ability to work well as part of a team.
- Ability to work independently and structure your own working days.
- Ability to undertake a range of technical support activities in the laboratory and field, using microbiological focused survey techniques.

Desirable requirements:

Ability to work flexible hours, when experimental and field components of the project require it. A driving licence. Further information

This post is a fixed term, full-time post of 12 months.

HOW TO APPLY

<https://www.imperial.ac.uk/jobs/description/-NAT00771/covid-19-research-technician> DEADLINE 16 October 2020

Prof. Vincent Savolainen Professor of Organismic Biology

Director of the Grand Challenges in Ecosystems and the Environment Initiative

Imperial College London Department of Life Sciences
Silwood Park Campus Buckhurst Road, Ascot, SL5 7PY,
UK

Tel +44 (0)20 7594 2374
v.savolainen@imperial.ac.uk skype vincent.savolainen1
www3.imperial.ac.uk/people/v.savolainen

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

IZW Berlin BioStatistician

Dear all,

We are looking for a quantitative scientist with a proven track record in dynamical modelling of wildlife populations and communities in space and time. Specifically, we are looking for a BioStatistician with strong background in one or several topics such as network theory and analysis, dynamic species interaction models, expertise in the analysis of animal (re-)location data and data integration techniques. The candidate is supposed to support in-house projects with statistical advice and develop an own research agenda. The position also welcomes support in teaching duties.

Prerequisites:

* Completed university degree (PhD or Doctoral degree) in ecological theory or modelling, computational biology or bioinformatics, behavioural ecology, biology, biogeography or similar. * A demonstrated ability to publish scientific papers and communicate results to a wider public. * Excellent programming skills preferably in R, or Python and Julia, and other object-oriented languages such as C++, Delphi or Netlogo. * A strong background in statistical analyses and spatio-temporal modelling; knowledge about Bayesian statistics is an

advantage, familiarity and proven ability to use simulation models is a clear strength. * High motivation and efficiency; ability to work independently and as part of a team. * Proficiency in English (oral and written).

The Department of Ecological Dynamics focusses on understanding ecological dynamics in space and time and across gradients of human-altered environments. We use statistical modelling and spatially-explicit dynamic modelling to understand and better forecast wildlife responses to challenges at the population and community level (www.ecological-dynamics-izw.com/). With this aim, we also strongly seek to advance theory and methods. We offer a stimulating international research environment.

The position will start January 1st, 2021 and is initially limited until 31st December, 2023, with a possible option of tenure. Working hours comprise 39 hours per week (100 %) with salary and benefits according to TVöD (Bund). A later start is possible.

As a member of the Leibniz Association, the Leibniz-IZW is an equal opportunity employer, determined to increase the proportion of women in successful scientific careers and particularly encourages women to apply. Preference will be given to disabled applicants with the same qualifications.

The Leibniz Institute for Zoo and Wildlife Research (IZW) in Berlin is Germany’s premier wildlife research institute, one of eight research institutes in the Forschungsverbund Berlin e. V., a member of the Leibniz Association and jointly funded by the German federal and state governments. The IZW focuses on the life histories and mechanisms of evolutionary adaptations of mammals and birds, their limits and their conservation in natural and anthropogenically influenced environments. The institute operates within the fields of evolutionary ecology, ecological dynamics, evolutionary genetics, wildlife diseases, reproduction biology and reproduction management.

For enquiries or further questions please contact Prof Dr Stephanie Kramer-Schadt (Leibniz IZW) Tel.: +49 (0)30 5168-714, email: kramer@izw-berlin.de.

Please upload complete application with a motivation letter, CV and copies of relevant degrees, teaching and research portfolio (incl third-party funded research), list of publications and names and contact details of two referees by November 23rd, 2020 at the latest via the IZW’s (www.izw-berlin.de) online job-application facility (button “Apply online”). Interviews will take place in early December 2020.

We are looking forward to your application!

<https://twitter.com/EcoDynIZW/status/1314222137633394689> <https://leibniz-institut fuerzoo-undwildtierforschung.softgarden.io/job/-7717245?l=en> < <https://leibniz-institut fuerzoo-undwildtierforschung.softgarden.io/job/7717245?l=en> > <https://jobrxiv.org/job/leibniz-institute-for-zoo-and-wildlife-research-27778-ecological-modeller-biostatistician/> Alexandre Courtiol

<http://sites.google.com/site/alexandre courtiol/home>
alexandre.courtio1@gmail.com

NHMD UCopenhagen 3 DigitalNaturalHistory

The Natural History Museum of Denmark (NHMD)/Statens Naturhistoriske Museum (SNM) and the Department of Computer Science (DIKU) at the University of Copenhagen have announced a joint Full Professor position in Computer Vision for Digital Natural History.

The new professor is expected to make a significant contribution to leadership in Computer Vision within the Department of Computer Science and will serve a leading role as Curator of Digital Collections at the Natural History Museum of Denmark. The professor must ensure that Computer Vision research, teaching, and public engagement activities are thriving, and act as a mentor to young researchers.

Outstanding applicants in all areas of Computer Vision will be considered, but research areas of special interest include:

- Theory and application of object recognition - Machine learning in image analysis - Mathematical foundation of image analysis - Technological innovation related to object digitization

<https://snm.ku.dk/ledige-stillinger/all-jobs/2020/-211-008520-2k-professor-of-computer-vision-for-digital-natural-history/> Application deadline is 1 December 2020

The Natural History Museum of Denmark (NHMD)/Statens Naturhistoriske Museum (SNM) at University of Copenhagen has announced a Vertebrate Curator position at the Assistant/Associate Professor level, as part of a three position cluster hire. The search is intended to fill current curatorial vacancies in either

mammalogy or herpetology. The position is announced separately for assistant and associate professor tracks because of university policies, but only one of these will be filled.

Assistant Professor: <https://snm.ku.dk/ledige-stillinger/all-jobs/2020/211-007520-2n-tenure-track-assistant-professor-in-vertebrate-zoology/> Associate Professor: <https://snm.ku.dk/ledige-stillinger/all-jobs/2020/211-027920-2e-associate-professor-in-vertebrate-zoology/> All cluster hire positions here: <https://snm.ku.dk/ledige-stillinger/> Application deadline is 1 December 2020.

The Natural History Museum of Denmark (NHMD)/Statens Naturhistoriske Museum (SNM) at University of Copenhagen has announced a Palaeontology Curator position at the Assistant/Associate Professor level, as part of a three position cluster hire. The position is announced separately for assistant and associate professor tracks because of university policies, but only one of these will be filled.

Assistant Professor: <https://snm.ku.dk/ledige-stillinger/all-jobs/2020/211-007420-2n-tenure-track-assistant-professor-in-palaeontology/> Associate Professor: <https://snm.ku.dk/ledige-stillinger/all-jobs/2020/-211-027820-2e-associate-professor-in-palaeontology/> All cluster hire positions here: <https://snm.ku.dk/ledige-stillinger/> Application deadline is 1 December 2020.

Peter A. Hosner Assistant Professor & Curator of Birds Natural History Museum of Denmark Center for Macroecology, Evolution, & Climate, Globe Institute

University of Copenhagen Universitetsparken 15, 465 DK-2100 Copenhagen Denmark

TEL: +45 52753248 Email: peter.hosner@snm.ku.dk
Skype: [pete.hosner](https://www.skype.com/user/pete.hosner) Twitter: @peter_hosner

Peter Andrew Hosner <peter.hosner@snm.ku.dk>

NHMD UCopenhagen BotanyCurator

The Natural History Museum of Denmark (NHMD)/Statens Naturhistoriske Museum (SNM) at University of Copenhagen has announced a Botany Curator position as part of a three position cluster hire. The position is announced separately for assistant and

associate professor tracks because of university policies, but only one of these will be filled.

Assistant Professor: <https://snm.ku.dk/ledige-stillinger/all-jobs/2020/211-007320-2n-tenure-track-assistant-professor-in-botany/> Associate Professor: <https://snm.ku.dk/ledige-stillinger/all-jobs/2020/-211-007420-2n-tenure-track-assistant-professor-in-palaeontology/> All cluster hire positions here: <https://snm.ku.dk/ledige-stillinger/> Application deadline is 1 December 2020.

peter.hosner@snm.ku.dk

SouthWesternOklahoma EvolutionaryBiologist

The Department of Biological Sciences at Southwestern Oklahoma State University invites applications for a tenure-track assistant professor position Starting August 2021. We are seeking a biologist committed to excellence in teaching anatomy and organismal biology courses. The candidate will teach across the curriculum including majors and non-majors introductory courses, Human Anatomy, core biology courses and upper-division courses in their specialty. The candidate will also contribute to a growing undergraduate research program and will work with colleagues to integrate research into the biology curriculum. Startup funds and research space are available. The candidate is expected to participate in department and university service. Our department values collegiality and participation in its mission to provide an excellent learning environment for students. Additional information about the department can be found at: <https://bulldog.swosu.edu/academics/biological-sciences/index.php> . To apply: <https://swosu.csod.com/ux/ats/careersite/1/-home/requisition/32?c=swosu> “Cothran, Rickey” <rickey.cothran@swosu.edu>

TelAvivU EvolutionaryBiology

Tel-Aviv University, The School of Zoology - Tenure Track Position

Seeking a dynamic research leader for a tenure-track position at Tel Aviv University, School of Zoology

The School of Zoology at Tel-Aviv University invites applications from exceptional candidates for a tenure-track position opening in October 2021. Candidates are expected to have a strong track record in the core research areas of the school of Zoology (see below).

Tel-Aviv University is the largest University in Israel (<https://english.tau.ac.il/research-main>). The appointment is tenure-tracked, with a fixed term of 5 years, designed to enable early career scientists to become tenured group leaders and to develop an independent, internationally leading research group. Candidates are also expected to contribute to the student learning experience through teaching undergraduate and graduate courses and through their research and personal tutoring. Upon acceptance, the candidate will be provided with start-up funds and support with student scholarships, and will also benefit from training in research management.

The School of Zoology is the largest and most diverse institute for zoological research in Israel (<https://enlifesci.tau.ac.il/zoology/?tab=0>). Among the school's resources is the Meier Segals Garden for Zoological Research (<http://zoo.tau.ac.il/eng>). In addition, many of the faculty members of the School of Zoology are involved in the Steinhardt Museum of Natural history (<https://smnh.tau.ac.il/en/>). The 23 researchers in the school cover many fields of research including ecology, biogeography and macroecology, comparative and eco-physiology, conservation biology and biodiversity, marine biology, neuroethology, animal behaviour, behavioural ecology, evolution, systematics and taxonomy. The school currently has 70 MSc students, 80 PhD students and 20 post-docs.

Candidates must have a strong publication record and a clear research vision. Successful candidates are expected to raise external funding and to develop their own research programmes. They will be assessed during their appointment for progression to becoming tenured associate professors at Tel-Aviv University. Women and candidates from minority groups are particularly

encouraged to apply.

For further information, please contact the head of the school: Prof. Arnon Lotem at:

lotem@tauex.tau.ac.il

In order to apply, please submit the following material electronically to:

lotem@tauex.tau.ac.il

(1) A letter of application. (2) Your CV. (3) A short (no more than 3 pages) research and teaching statement outlining the candidate's academic and teaching achievements and vision. Upon request, be prepared to provide 3 recommendation letters (which should be sent directly to the email address above)

Closing Date: December 1st, 2020

ISR-EVO mailing list [ISR-EVO@list server.cc.huji.ac.il](mailto:ISR-EVO@list.server.cc.huji.ac.il)
[https://list server.cc.huji.ac.il/listinfo/isr-evo](https://list.server.cc.huji.ac.il/listinfo/isr-evo)

Roi Holzman <holzman@tauex.tau.ac.il>

TexasAMU LabTech Genomics

The Marine Genomics Laboratory (MGL) at Texas A&M University ??? Corpus Christi is seeking a highly motivated individual to join our team of researchers as a full-time laboratory technician. The successful applicant for this position (Research Specialist I) will be responsible for planning and performing laboratory work for several projects related to the genetics of cultured fish and shellfish.

Responsibilities include performing standard molecular biology techniques such as PCR and gel electrophoresis, constructing various kinds of genomic libraries for next-generation sequencing (NGS), developing and improving protocols for genomic lab techniques, and training and supporting students and research staff in the laboratory.

Candidates for this position must have (1) a Bachelor???s or Master???s degree in a related field and (2) at least four years experience with molecular biology techniques. Preferred qualifications include prior experience with next-generation sequencing library preparation or other genomic techniques.

To apply: https://tamus.wd1.myworkdayjobs.com/en-US/TAMUCC_External/job/Corpus-Christi-TAMUCC/Research-Specialist-I.R-032797-1 For more information, please contact: Dr. Chris Hollenbeck
Email: christopher.hollenbeck@tamucc.edu

“Hollenbeck, Christopher”
<Christopher.Hollenbeck@tamucc.edu>

TexasTechU EvolutionaryVirologist

ASSISTANT PROFESSOR IN VIROLOGY: DEPARTMENT OF BIOLOGICAL SCIENCES, TEXAS TECH UNIVERSITY, LUBBOCK, TEXAS 79409

The Department of Biological Sciences at Texas Tech University is recruiting a 9-month tenure-track Assistant Professor in the field of Virology to begin in the Fall of 2021. The department will fully consider all candidates studying one or more aspects of virology including pathogenesis, transmission, virus-host interactions, cellular and molecular virology, and viral evolution. The chosen applicant will complement and contribute to the University's emerging One Health Initiative while enhancing current programmatic strengths in the department. The successful candidate is also expected to supervise an independent and energetic research program that will attract extramural funding, provide research training for graduate and undergraduate students, teach subject area courses (e.g. MBIO 4310) at the undergraduate and graduate levels, and engage in service to the department, college, and university. A PhD and postdoctoral experience in Biology or a related field is required.

To apply, please go to: <http://www.texastech.edu/careers> and search position 21968BR. <https://tinyurl.com/ttudbs-virology> Application materials should consist of 1) a curriculum vitae, 2) three representative publications, 3) statements of research and teaching interests, 4) a diversity statement (evaluation rubric available online), and 5) the names of three potential referees.

Application review will begin on November 30, 2020 and continue until the position is filled. Questions can be addressed to the search committee chair Dr. David Ray (david.a.ray@ttu.edu). For further information on the department and graduate and undergraduate programs, see <http://www.biol.ttu.edu>. The Department of Biological Sciences is building a diverse faculty committed to teaching and working in an inclusive and equitable environment (<http://www.depts.ttu.edu/biology/resources/diversity/>). TTU is a Hispanic Serving Institution, a 5-star Campus Pride Index Premier Campus, and is committed to inclusive excellence (<https://www.depts.ttu.edu/diversity/staff.php>). As an Equal Employment Opportunity/Affirmative Action em-

ployer, Texas Tech University is dedicated to the goal of building a culturally diverse faculty committed to teaching and working in a multicultural environment. We actively encourage applications from all those who can contribute, through their research, teaching, and/or service, to the diversity and excellence of the academic community at Texas Tech University. The university welcomes applications from minorities, women, veterans, persons with disabilities, and dual-career couples.

– David A. Ray Website - <http://www.davidraylab.com>
 Github - <https://github.com/davidaray/> Twitter - @RayLabTTU Skype - david.a.ray

Department of Biological Sciences Texas Tech University
 Phone: (806) 834-1677

Even the best of us have bad days. “I am very poorly today and very stupid and hate everyone and everything.”
 - Charles Darwin - Oct. 1, 1861

david.4.ray@gmail.com

UCalifornia Davis QuantGenetics

QUANTITATIVE BIOLOGIST - Assistant Professor of Teaching

Description: The University of California, Davis invites applications for an Assistant Professor of Teaching position in quantitative biology education. Professors of Teaching are Academic Senate faculty members whose expertise and responsibilities center on undergraduate education and scholarly analysis and improvement of teaching methods. The official title is Lecturer with the Potential for Security of Employment (LPSOE). LPSOEs are eligible for promotion to “Security of Employment,” which is analogous to tenure. The position will reside in the Department of Evolution and Ecology and be affiliated with the planned interdisciplinary major in Quantitative Biology, which seeks to serve as a national model for quantitative biology education. The appointee will be expected to carry out a high-level teaching program focused on the development of innovative curricula and use of effective teaching methods in quantitative biology. The appointee also will be expected to conduct scholarly research, which for this position is expected to include rigorous development and assessment of teaching methods and curricula in quantitative biology. The appointee will teach four undergraduate courses per year, including Mathematics or Statistics courses enrolling biology students. The

appointee will also provide service to the planned Quantitative Biology major and the Department of Evolution and Ecology. Service expectations include, but are not limited to, undergraduate quantitative biology curriculum development, administration, and assessment, as well as outreach activities promoting the planned Quantitative Biology major. Academic scholarship expectations include dissemination of educational findings at a national level through peer-reviewed publications and conference presentations, and the potential to attract extramural funding to support this scholarship. In addition, the appointee should be committed to mentoring and fostering diversity, equity, and inclusion.

UC Davis, located approximately one hour from the San Francisco Bay area, has a large and highly collaborative community of Teaching Professors within the College of Biological Sciences and throughout the larger campus, a strong history of interdisciplinary educational initiatives in STEM fields, and a nationally renowned Center for Educational Effectiveness that together provide an excellent environment for work in quantitative biology education.

To ensure full consideration, completed applications should be received by November 30, 2020.

For more details and to apply, please see:

<https://recruit.ucdavis.edu/JPF03860> Jonathan A. Eisen, Ph.D. Professor, University of California, Davis Director, UC Davis Microbiome Special Research Program Depts: Evolution and Ecology, Medical Microbiology and Immunology, UC Davis Genome Center

Mail: GBSF 5311, UC Davis Genome Center, Davis, CA 95618 Phone: 530-752-3498, Skype: jonathan_eisen
 Email: jaisen@ucdavis.edu, jonathan.eisen@gmail.com

Web: Eisen Lab Page, The Tree of Life Blog, microBE.net
 Social: Twitter, Facebook, LinkedIn, Instagram

Jonathan Eisen <jonathan.eisen@gmail.com>

UMassBoston EcoEvolDisease

The Biology Department at the University of Massachusetts Boston seeks applicants for a full-time tenure track Assistant Professor in the Ecology and Evolution of Emerging Diseases, starting in September 2021. Individuals applying for this position should be well-versed in epidemiology and evolutionary or ecological theory as applied to emerging human, plant, agricultural, or wildlife diseases.

We are particularly interested in applicants with cutting-edge research in emerging disease and global environmental change. This includes research on epidemiology or public health in urban settings from an ecological or evolutionary point of view. We expect that candidates for the position could employ a broad range of different approaches in their research including, but not restricted to, fieldwork, mathematical modeling, immunological bioinformatics, and biological networks, and that they will complement existing strengths of the department in plant and animal model systems.

The Assistant Professor is expected to establish an externally funded research program, direct the research of students at the undergraduate, masters, and doctoral levels, interact with a dynamic group of ecologists and evolutionary biologists, and become an active participant in the established Environmental and/or Molecular, Cellular, and Organismal Biology Ph.D. programs. Excellence in teaching at the undergraduate and graduate levels is expected, and those using innovative pedagogical approaches are encouraged to apply. The specific courses taught will depend on expertise. A Ph.D. and postdoctoral training (or equivalent professional experience) in epidemiology, disease ecology, pathogen evolutionary biology, human health, or related fields is required. In line with our commitment to improving diversity and inclusivity in the sciences, we are actively seeking to increase representation of faculty from historically underrepresented groups in ecology and evolution. We especially encourage scientists who are members of underrepresented groups to apply.

All biology labs are in the new Integrated Sciences Complex, which also houses core facilities for genomics, imaging and flow cytometry. The university is home to excellent research centers including the Nantucket Field Station, the UMass Boston-Dana Farber/Harvard Cancer Center Partnership, the Center for Personalized

Cancer Therapy, the UMass Center for Health Equity Intervention Research, the UMass Center for Clinical and Translational Science, and the UMass Boston Venture Development Center.

UMass has the most diverse student body of any 4-year institution in New England, with a majority being students of color. Many of our students come from immigrant backgrounds and/or are the first in their families to attend college. The campus itself is situated on a peninsula extending into Boston Harbor, with wonderful views of the city and harbor.

Application instructions:

Please apply online (<https://employmentopportunities.umb.edu/boston/en-us/job/-506490/assistant-professor-of-ecology-and-evolution-of-emerging-diseases>) and submit (1) a cover letter, (2) a curriculum vitae, (3) a concise statement of research accomplishments and long-term vision, (4) a statement of teaching experience and goals, and (5) a diversity statement that reflects the candidate's experience and commitment to diversity, equity, and inclusion. Names and contact information for three letters of reference should be included.

For further information, visit the Biology Department website (<https://www.umb.edu/academics/csm/-biology>) or contact Drs. Doug Woodhams or Liam Revell, Co-Chairs of the Search Committee, at douglas.woodhams@umb.edu or liam.revell@umb.edu.

Target date for receipt of applications is November 15, 2020, but applications will be reviewed until the position is filled.

– Liam J. Revell University of Massachusetts Boston Universidad Católica de la Sma Concepción web: <http://faculty.umb.edu/liam.revell/>, <http://www.phytools.org>

Academic Director UMass Boston Chile Abroad: https://www.umb.edu/academics/caps/international/-biology_chile “Liam J. Revell” <liam.revell@umb.edu>

UNebraska Omaha 2 EvolutionaryBiology

Two Tenure-track Faculty Positions in Evolutionary Biology

The Department of Biology at the University of Nebraska Omaha (UNO) invites applications for two tenure-

track faculty positions at the rank of Assistant Professor starting August 2021. We seek candidates for two positions, one with a focus on Organismal Evolutionary Biology and the other with a focus on Molecular Evolutionary Biology. A Ph.D. in the life sciences at time of application is required. Postdoctoral research experience is preferred.

The successful candidates will establish active, externally-funded research programs and contribute to core courses in the undergraduate biology curriculum and senior/graduate level courses in the candidates' area of specialization. We anticipate that the person selected for the Organismal Evolutionary Biology will focus on the microevolutionary processes that shape organisms and populations. The specific area of research is open, but could include experimental approaches to the evolutionary ecology of wild populations, response to climate change or other human influences on natural populations, or other areas with a significant focus on studying evolution at the level of whole organisms. The person selected for the Molecular Evolutionary Biology position will employ molecular analytical techniques to address topics in evolutionary biology that might include, but are not limited to, the evolution of infectious disease agents, immune interactions, proteins or protein complexes, genomes, or microbiomes.

The Department comprises 26 faculty members serving over 950 undergraduate majors and approximately 25 graduate students. Field-based facilities support research and teaching programs in the department; these include a 212-ha prairie preserve with access to a local stream system. Shared facilities include two next-generation sequencing instruments, access to high performance computing resources, as well as a 1700 square foot greenhouse.

The university, college, and Department of Biology have a strong commitment to diversity in its varied forms and to fostering an inclusive and welcoming learning environment where students, faculty and staff thrive and succeed. With a metropolitan mission, UNO serves a diverse student body with a large number of first-generation college students, and is also actively engaged with the community (<https://www.unomaha.edu/about-uno/mission.php>). UNO is both a metropolitan university of distinction and a Carnegie Doctoral Research institution. UNO transforms and improves the quality of life locally, nationally, and globally. The successful candidate will become part of a dynamic and growing program in the College of Arts and Sciences that is actively engaged with other colleges on the campus as well as community partners.

The campus is located in the heart of Omaha, a cos-

metropolitan city of more than 600,000 (1.2 million including the larger Omaha metro area) that ranks highly for quality of life, affordability, and economic strength. Omaha is home to four Fortune 500 companies, several biomedical research institutions, and numerous government and non-profit organizations.

Inquiries about the position may be directed to Dr. John McCarty (jmccarty@unomaha.edu). For more details about the positions and to apply go to: Molecular Evolutionary Biology: <https://unomaha.peopleadmin.com/postings/11810> Organismal Evolutionary Biology: <http://unomaha.peopleadmin.com/postings/11813> Review of applications will begin on November 20, 2020.

The University has a strong commitment to achieving diversity among faculty and staff. The University of Nebraska does not discriminate based on race, color, ethnicity, national origin, sex, pregnancy, sexual orientation, gender identity, religion, disability, age, genetic information, veteran status, marital status, and/or political affiliation in its programs, activities, or employment. UNO is a VEVRAA Federal Contractor and an E-Verify employer.

Guoqing Lu <glu3@unomaha.edu>

UNotreDame DiseaseEvolution

Assistant/Associate Professor in the Biology of Disease

The Department of Biological Sciences at the University of Notre Dame seeks to recruit early to mid-career biologists studying the biology of disease. We will consider applicants who study disease at any level of organization, from the molecular up to population scale.

The successful candidate(s) will be highly productive with either established funding or strong potential to generate a vigorous, externally funded research program. Applicants should possess research programs that complement and synergize with others in the department. Areas of desired expertise include:

- Vector biology, disease ecology, or epidemiology
- Virology, parasitology, microbiology, neglected tropical diseases, or immunology
- Cancer biology, stem cells and regenerative biology, neurobiology, cell and developmental biology, or rare diseases
- Physiology, or pathophysiology
- Evolutionary, population, or functional genomics

New faculty will contribute to the undergraduate and

graduate teaching mission of the Department of Biological Sciences, and join an integrative and collaborative research community with expertise that spans the breadth of the life sciences. Several faculty have active research partnerships with international field sites and associated research partners, including in Africa, Latin America, Asia, and the South Pacific. Information on the department and other college faculty and facilities can be found at <http://biology.nd.edu> and <http://science.nd.edu>. Opportunities also exist for collaboration with faculty at the adjoining Indiana University School of Medicine-South Bend and through the NIH-funded Indiana Clinical and Translational Sciences Institute (CTSI), which is a statewide research partnership between Indiana University, Purdue University, and the University of Notre Dame.

The diverse Notre Dame research community is supported by numerous Centers and Institutes including: the Center for Stem Cells and Regenerative Medicine, Harper Cancer Research Institute, Eck Institute for Global Health, Keck Center for Transgene Research, Center for the Study of Biocomplexity, and Center for Zebrafish Research. Additional facilities to support research include the AAALAC-accredited Freimann Animal Facility, Integrated Imaging Facility, Center for Research Computing, and cores in Structural Biology, Bioinformatics, Genomics and Proteomics.

The University of Notre Dame seeks to attract, develop, and retain the highest quality faculty and successful candidates will contribute to a diverse and inclusive community of faculty, staff, and students. The University is an Equal Opportunity Employer committed to building a culturally diverse and inclusive community and supports the needs of dual-career couples. Female candidates and applicants from diverse backgrounds are particularly encouraged to apply.

Application Instructions: Applicants should submit in PDF format, a cover letter, curriculum vitae, names and contact information of three professional references, 2-page statement of research interests and future research plans, a 1-2-page teaching and mentoring statement, and a 1-page statement on diversity and inclusion that showcases the applicant's interest in and contributions to these issues to <http://apply.interfolio.com/78923>. Interested individuals are welcome to contact the search chair, Mary Ann McDowell, at mmcdowell.11@nd.edu. Review of applications will commence on November 6, 2020, and will continue until suitable candidates are identified.

Alex Perkins <taperkins@nd.edu>

USouthernCalifornia ComputationalBiol

The Quantitative and Computational Biology (QCB) section in the Dornsife College of Letters, Arts and Sciences at the University of Southern California invites applications for a tenure-track Assistant Professor position in any area of computational biology. The ideal candidate's research program will take mathematical, computational, and/or statistical approaches to questions in biological or biomedical research. Priority will be given to applicants on the basis of the originality of their work and promise for establishing a strong independent research program.

The QCB section is actively working to increase diversity amongst its faculty, given a strong commitment to equity and inclusion and considering diversity across multiple dimensions. As such, members of groups historically underrepresented in computational biology and those from non-traditional backgrounds are strongly encouraged to apply. Additionally, the search committee will value evidence of a commitment to advancing equity and inclusion through research, teaching, and/or service.

The successful candidate will join the QCB section, a group of 14 tenured/tenure-track and teaching core faculty members. The QCB section boasts a 35-year history of computational biology research and education, including a rigorous Ph.D. program in Computational Biology and Bioinformatics with 60 students and an undergraduate major in Quantitative Biology with 60 students that represents the 21st century biology education at the interface with math and computer science. Members of the QCB section work closely with other faculty in the Dornsife College of Letters, Arts and Sciences, the Viterbi School of Engineering, and the Keck School of Medicine. More information on the QCB section can be found at <http://dornsife.usc.edu/qcb/>. The QCB section is located on the University Park Campus in Los Angeles, California.

The anticipated start date is August 16, 2021, and applicants must have received a Ph.D. (or equivalent) degree by time of appointment. Review of applications will begin December 15th, 2020, and continue until the position is filled. In order to be considered for this position, all candidates must apply via the "Apply" link at <https://usccareers.usc.edu/job/los-angeles/>

[assistant-professor-of-quantitative-and-computational-biology/1209/17668361](https://uscareers.usc.edu/job/los-angeles/assistant-professor-of-quantitative-and-computational-biology/1209/17668361) .Please submit, in a single PDF file, a curriculum vitae, a cover letter, a statement of research accomplishments and future research plans, a teaching statement, a statement of your approach and contributions to diversity, equity, and inclusion, and the contact information of three references that will provide letters of recommendations. In addition to the three required references primarily focused on research and scientific impact, we welcome up to two additional references either focused on research or commitment to diversity, equity, and inclusion. Please direct inquiries to Rokas Oginskis at oginskis@usc.edu.

USC is an equal opportunity, affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, protected veteran status, disability, or any other characteristic protected by law or USC policy. USC will consider for employment all qualified applicants with criminal histories in a manner consistent with the requirements of the Los Angeles Fair Chance Initiative for Hiring ordinance.

"edgem@usc.edu" <edgem@usc.edu>

USouthernCalifornia EvolutionaryBiology

<https://uscareers.usc.edu/job/los-angeles/assistant-professor-of-biological-sciences/1209/17785043> The Department of Biological Sciences in the University of Southern California Dornsife College of Letters, Arts and Sciences invites applications for multiple tenure-track Assistant Professor positions. We seek accomplished and innovative researchers in all areas of biology. We especially encourage applications from candidates whose scholarship bridges the research interests across the sections of our department, namely Human and Evolutionary Biology, Marine and Environmental Biology, Molecular and Computational Biology, and Neurobiology (<https://dornsife.usc.edu/bisc/>). This search will emphasize candidates who will advance diversity, equity, and inclusion in our department through their research, teaching, and/or service. We encourage scientists who come from historically underrepresented groups or have non-traditional backgrounds to apply. The Department is committed to supporting the family needs of faculty, including dual career couples and

single parents.

Applicants should have a Ph.D. (or equivalent) and the demonstrated ability to conduct compelling independent research and to attract external research funding. Review of applications will begin December 15, 2020. Applicants should submit, in a single pdf file, a curriculum vita, a cover letter, research, teaching, and diversity-equity-inclusion statements, as well as the contact information of four references. Information on USC's commitment to diversity, equity, and inclusion in the STEM fields can be found at <https://diversity.usc.edu/>. In order to be considered for this position, all candidates must apply via the "Apply" link at the top or bottom of this page. For more information, please contact Ian Ehrenreich, Vice Chair of Biological Sciences (ian.ehrenreich@usc.edu).

USC is an equal opportunity, affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, protected veteran status, disability, or any other characteristic protected by law or USC policy. USC will consider for employment all qualified applicants with criminal histories in a manner consistent with the requirements of the Los Angeles Fair Chance Initiative for Hiring ordinance.

Helga Schwarz <helgasch@dornsife.usc.edu>

UTexas Austin EvolutionaryBiol

Dear Biologists,

I wanted to let everyone know about this open-rank job opportunity in the Department of Integrative Biology at the University of Texas at Austin:

The College of Natural Sciences at The University of Texas at Austin invites applications for tenure-track (Assistant Professor) or tenured (Associate Professor or Professor) faculty positions from candidates who are committed to building a diverse and inclusive educational environment. The College is especially interested in and values candidates who have experience working with diverse and underserved populations, and have demonstrated a commitment to improving the diversity of their academic communities.

For more information see: <https://apply.interfolio.com/79958> Deadline to apply is November 15th.

Felicity Muth, PhD Department of Integrative Biology, The University of Texas at Austin.

< <http://felicitymuth.weebly.com/> > Twitter @felicitymuth < <https://twitter.com/felicitymuth> >
< <http://blogs.scientificamerican.com/not-bad-science/> > <https://www.beecognition.com> <
<https://www.beecognition.com/join-the-lab/> > <
<https://twitter.com/notbadscience> >

“Muth, Felicity” <Felicity.Muth@austin.utexas.edu>

UToronto Computational Evolutionary Biology

Assistant Professor - Computational Ecology and Evolutionary Biology

The Department of Ecology and Evolutionary Biology < <http://www.eeb.utoronto.ca/> > at the University of Toronto invites applications for a tenure stream appointment in Computational Ecology and Evolution at the rank of Assistant Professor, with an expected start date of July 1, 2021.

We seek candidates who conduct conceptually driven research, using computational approaches (including analysis of large-scale datasets or mathematical models) to study fundamental questions in ecology and/or evolution. We seek applications from candidates whose research program complements the research programs < <http://www.eeb.utoronto.ca/> > of the highly collaborative faculty currently in the department.

The successful candidate must have a PhD in ecology, evolution or a related field by the date of July 1, 2021 or soon thereafter. Candidates must have a demonstrated record of excellence in research. The successful candidate will be expected to mount an independent, innovative, active, externally funded and internationally recognized research program. The successful candidate will also demonstrate excellence in teaching and contributions to the education and training of undergraduate and graduate students.

Candidates must provide evidence of research excellence which can be demonstrated by a record of publications in top-ranked and field relevant journals and forthcoming publications meeting high international standards, the submitted research statement, presentations at significant conferences, awards and accolades, and strong endorsements from referees of high standing.

Evidence of excellence in teaching will be provided through teaching accomplishments, the teaching dossier including a teaching statement, sample course materials, and teaching evaluations or other evidence of superior performance in teaching-related activities submitted as part of the application, as well as strong letters of reference. Other teaching-related activities can include performance as a teaching assistant or course instructor, experience leading successful workshops or seminars, student mentorship, or excellent conference presentations or posters.

Equity and diversity are essential to academic excellence. We seek candidates who value diversity and whose research, teaching and service bear out our commitment to equity. Candidates are therefore asked to include a statement discussing past, current and/or planned contributions to equity and diversity, which might cover topics such as (but not limited to): research or teaching that incorporates a focus on underrepresented communities, the development of inclusive pedagogies, public engagement activities that reach out to marginalized communities, and mentoring of students from underrepresented groups.

Salary to be commensurate with qualifications and experience.

The University of Toronto is a leading academic institution with over 60 faculty members specializing in ecology and evolution. Strong links exist between the Department of Ecology and Evolutionary Biology and the Royal Ontario Museum, the Department of Cell and Systems Biology, the Centre for Global Change Science, Dalla Lana School of Public Health, the School of the Environment, the University network of leading academic research hospitals (<http://www.uhn.ca/>, [sunnybrook.ca/](http://www.sunybrook.ca/)) and research groups with provincial and federal government agencies. The University owns a nearby field station dedicated to ecological research (the Koffler Scientific Reserve; <http://www.ksr.utoronto.ca/>). Toronto is a vibrant and cosmopolitan city, one of the most desirable in the world in which to work and live.

All qualified candidates are invited to apply online by clicking the link below.

Applications must include:

- * a cover letter
- * curriculum vitae
- * statement of research interests
- * a teaching dossier including a statement of teaching interests and teaching philosophy, sample syllabi, and course evaluations or evidence of superior performance in other teaching-related activities as listed above
- * an equity and diversity statement (as noted above)
- * three representative publications
- * applicants

must provide the name and contact information of three references. The University of Toronto's recruiting tool will automatically solicit and collect letters of reference from each once an application is submitted. Applicants, however, remain responsible for ensuring that references submit letters (on letterhead, dated and signed) by the closing date, November 16, 2020, 11:59 p.m. (EST).

For further information on the Department of Ecology and Evolutionary Biology, please visit our website at

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

UWisconsin StevensPoint LabManager PopulationGenomics

The The Wisconsin Cooperative Fishery Research Unit at UW-Stevens Point is advertising for a Genetics Laboratory Manager. This position is responsible for laboratory and research functions within the Molecular Conservation Genetics Laboratory (MCGL) of the WI Cooperative Fishery Research Unit. As such, this position provides research support for WICFRU, the Wisconsin Department of Natural Resources, and faculty and staff of the College of Natural Resources. The primary responsibility is to manage and supervise the day-to-day operations of the MCGL to ensure high levels of accuracy and integrity in the final research products. These duties include being up to date on contemporary molecular biology protocols, designing and implementing molecular research, and educating and training undergraduate and graduate students in molecular genetic research techniques. Please see the following link to apply: https://www.careers.wisconsin.edu/-psc/careers/EMPLOYEE/HRMS/c/-HRS_HRAM_FL.HRS_CG_SEARCH_FL.GBL?Page=-HRS_APP_SCHJOB_FL&Action=U The application period ends October 21.

“Wesley A. Larson” <wlarson1988@gmail.com>

ValdostaStateU PlantEvolution

Job ad:

The Department of Biology in the College of Science & Mathematics is accepting applications for a tenure-track, faculty position specializing in plant biology. Appointment date is August 1, 2021. The selected candidate will be responsible for teaching courses in the candidate's area of expertise, maintaining scholarly productivity, and participating in service at the department, college, and university levels.

The department consists of 23 full time faculty serving approximately 700 majors in the College of Science & Mathematics offering a BA, BS, and MS in Biology. For more information on the department visit <https://www.valdosta.edu/biology/>. Valdosta State University is proud to have a highly diverse student body and we are seeking to recruit and retain outstanding candidates who exhibit a clear commitment to diversity and inclusion and who will enhance the diversity of our faculty and staff. For more information on the university visit <https://www.valdosta.edu>. Responsibilities The primary teaching responsibility will be upper-level laboratory courses in plant physiology, cell biology, and other electives related to the discipline for biology majors. Secondary teaching responsibilities may include majors and/or non-majors introductory biology courses with lab components. The applicant will be expected to include undergraduate and/or graduate (MS) students in their research program.

Required Qualifications - PhD in Plant Biology or a closely related discipline; - Demonstrated commitment to excellence in teaching and learning, as well as scholarship; - Commitment to diversity and inclusion.

Preferred Qualifications - Postdoctoral experience; - A record of effective teaching appropriate to the applicant's career stage; - Ability to work effectively in a collaborative setting; - A record of mentoring students of diverse backgrounds.

Online application is required and should be submitted by November 8, 2020, at <https://www.valdosta.edu/administration/finance-admin/-human-resources/employmentopportunities.php>. For more information on the position contact Dr. Gannon, Professor and Department Head, via email rlgannon@valdosta.edu.

Valdosta State University is an Equal Opportunity educational institution and has a strong institutional commitment to diversity. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including, but not limited to minorities and individuals with disabilities. Valdosta State University has a nondiscrimination policy that includes sex, race, color, sexual orientation, religion, age, marital status, national origin, disability, and veteran status.

Emily Rose <erose@valdosta.edu>

Virginia Commonwealth University Bioinformatics

The Center for the Study of Biological Complexity (<https://cbds.vcu.edu>) at Virginia Commonwealth University invites applications for a full-time renewable (non-tenure track) faculty position at the rank of Assistant Professor in Bioinformatics/Data Science with an anticipated start date of August 2021. As part of VCU Life Sciences (<https://lifesciences.vcu.edu>), the Center is committed to interdisciplinary training and research in biological data science. The Center administers bachelor's and master's degrees in Bioinformatics and participates in the interdisciplinary Integrative Life Sciences doctoral program, also housed within VCU Life Sciences. Additional units and resources within VCU Life Sciences include the Center for Environmental Studies, Center for Life Sciences Education, the Rice Rivers Center, and the Center for High Performance Computing.

We seek a broadly trained computational scientist who will conduct research and teach undergraduate and graduate courses in the Bioinformatics programs. Successful candidates will be expected to teach innovative courses in programming with Python, biological informatics, data science, or computational biology; mentor undergraduate and graduate students; and have a commitment to outreach and service both within and beyond the University community.

Required Qualifications: A doctoral degree (Ph.D.) in bioinformatics, data sciences, computer science, biological sciences, biological education, or a related field; demonstrated experience in teaching and mentoring students, including the ability to teach an introductory undergraduate Python course; a significant commitment to bioinformatics or biological data science research and development; demonstrated experience working in and

fostering a diverse faculty, staff, and student environment, or commitment to do so as a faculty member at VCU.

Preferred Qualifications: Postdoctoral experience in biological sciences, data sciences, bioinformatics, or a related field at the time of appointment; demonstrated experience in development of teaching materials and assessment of student learning at the undergraduate and graduate levels; demonstrated interest and experience in biological or computational science pedagogy; demonstrated ability working with a diverse student population; a demonstrated record of publications; and potential to develop a collaborative research program in data science or bioinformatics.

Interested applicants must apply online at <https://www.vcujobs.com/postings/101081> with (1) a Cover Letter/Letter of Application which includes (a) a statement and description of teaching philosophy and experience, (b) a research statement, and (c) contact information for three references; (2) CV; and (3) a statement of contribution to diversity, equity, and inclusion.*

*As a preeminent national, urban, public research university and academic health center, Virginia Commonwealth University is committed to organizational diversity, equity and inclusion 'V an environment where all can thrive in their pursuit of excellence. Applicants are requested to submit a Statement of Contributions to Diversity, Equity, and Inclusion typically between 150-300 words) providing your career aspirations and contributions toward promoting diversity, equity, and inclusion. Through this statement, you can share how your lived experiences, and academic and professional activities will impact your contribution to VCU's mission of promoting equity and inclusion.

Note: Examples include working with others to further the goals of equity and inclusion; leading in any capacity that tangibly promotes an environment where diversity is welcomed, fostered, and celebrated; creative activity, research and scholarship that promotes equity and parity; teaching and mentoring students, and/or engaging with faculty and/or staff from traditionally underrepresented groups to create a positive and successful organizational experience. More information can be found at <https://provost.vcu.edu/faculty/prospective/>. For additional information or questions, please contact the chair of the search committee Dr. Brian Verrelli at bverrelli@vcu.edu.

Virginia Commonwealth University is an equal opportunity, affirmative action university providing access to education and employment without regard to race, color, religion, national origin, age, sex, political affiliation, veteran status, genetic information, sexual orientation,

gender identity, gender expression, or disability.

Brian Verrelli <bverrelli@vcu.edu>

YaleU EvolutionaryBiology

YALE UNIVERSITY

Assistant Professor, Tenure Track in Ecology or Evolutionary Biology

The Department of Ecology and Evolutionary Biology at Yale University invites applications for an Assistant Professor in any area of ecology and evolutionary biology. We seek applicants who are addressing fundamental questions using creative approaches and whose research programs complement those of our current faculty. A record of outstanding achievement and a promising research program are more important than the specific research area within ecology and evolution.

We encourage applications from individuals at all early stages of their careers. This includes current Assistant Professors and individuals who will complete their terminal degree by July, 2021. A Ph.D. or equivalent degree is required for this position.

Interested candidates should submit a CV, cover letter, three relevant reprints or manuscripts, brief research, teaching and diversity statements, and three letters of reference at <http://apply.interfolio.com/79739>. Applicants are welcome to contact David Vasseur (david.vasseur@yale.edu) with any questions regarding the position. Review of applications will begin on February 1, 2021. The search will remain open until the position is filled.

Yale University is an Equal Opportunity/Affirmative Action Employer. Yale values diversity among its students, staff, and faculty and strongly welcomes applications from women, persons with disabilities, protected veterans and under-represented groups.

Many thanks for your help and please let me know if you may have any questions or may require additional information.

Kind regards,

Marcia Rynaski Chair's Assistant

“Rynaski, Marcia” <marcia.rynaski@yale.edu>

ZFMK Bonn HeadMolBiodiversity

The Zoological Research Museum Alexander Koenig seeks a

Head for the Centre of Molecular Biodiversity Research as a joint appointment of a chair in Molecular Biodiversity Research (W3) of the Museum and the University of Bonn. The Faculty of Mathematics and Natural Sciences of the Rheinische Friedrich-Wilhelms-Universität Bonn, Department of Biology, and the Zoological Research Museum Alexander Koenig (ZFMK) - Leibniz Institute of Animal Biodiversity are looking for a head of the Centre for Molecular Biodiversity Research (successor to Prof. Bernhard Misof) at the Zoological Research Museum Alexander Koenig (Bonn), jointly appointed as Chair of Molecular Biodiversity Research (W3) by the University of Bonn and ZFMK. The ZFMK is a foundation under public law and member of the Leibniz Association. As an institution, it contributes to the research and conservation of global biodiversity, conducts taxonomic and molecular biodiversity research, documents and analyzes evolutionary and ecological biodiversity change and engages in public communication on biodiversity change and its potential causes. The ZFMK is an internationally renowned research institute for terrestrial and freshwater zoology and houses the Centre for Molecular Biodiversity Research, which is unique in Germany.

The ZFMK is looking for a strategically thinking and integrative scientist with international standing as head of the center who will further develop molecular biodiversity research as a bridge between basic research and applied biodiversity research at an internationally excellent level. Applicants should have leadership experience and must meet the requirements for a professorship (habilitation or habilitation-equivalent performance).

Scientific excellence and expertise should be evident, for example, in the fields of: - phylogenomics and its algorithms, - comparative/evolutionary genomics and its method development, - bioinformatics, - species-based molecular or computational biodiversity research.

We expect - applicants to demonstrate successful international networking, - substantial acquisition of third-party funding, - and the development of a future strategy of the center including the molecular lab and HPC infrastructure.

It is desirable that applicants are familiar with collection-based science.

Seven working groups with different expertise are cooperating in the Centre for Molecular Biodiversity Research. These range from bioinformatics, method development in phylogenomics and comparative genomics, comparative genomics of vertebrates and insects, evolutionary genomics, to molecular laboratory method development. In addition, the center operates the central molecular laboratory and the HPC cluster of the ZFMK. The center is well connected and enjoys an excellent international reputation (<https://www.zfmk.de/en/zmb>). The new head of the center will have the opportunity to carry out research in an outstanding research environment, and cooperate with a young, dynamic and motivated team.

The University of Bonn, as one of the few Excellence Universities in Germany, offers an outstanding intellectual research environment. The Department of Biology at the University of Bonn and especially the Department of Zoology cooperate intensively with the ZFMK. The common research focus lies on the interaction between environment, phenotype and genome as a basis for an understanding of evolutionary as well as ecological biodiversity change. The W3 Professorship Molecular Biodiversity Research will be integrated in the Institute of Evolutionary Biology and Ecology; the professorship

will be filled for an unlimited period of time; the appointment will be based on the leave of absence model (“Jülich model”). The reduced teaching commitment of 2 SWS should be provided in the international Master’s programme OEP Biology. The membership status of a professor can be granted. Further information can be found at www.biologie.uni-bonn.de and www.oep-bio.uni-bonn.de. The working place will be the ZFMK. The requirements for employment are based on the standards for filling scientific leadership positions in the Leibniz Association and on § 36 of the Higher Education Act of North Rhine-Westphalia. The Leibniz Association and the University of Bonn are committed to diversity and equal opportunities. The University of Bonn is certified as a family-friendly university and has a dual career service. The ZFMK is also certified as a family-friendly institute and cooperates with the Dual Career Network of the Science Campus Bonn. The aim is to increase the proportion of women in areas in which women are underrepresented and to particularly promote their careers. Therefore, women with relevant qualifications are strongly encouraged to apply. Applications are treated in accordance with the State

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Other

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ASN SSE SSB IDEA AwardNominationsNowOpen

The American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists are pleased to announce the call for nominations for the 2nd annual ASN/SSE/SSB Inclusiveness, Diversity, Equity, and Access (IDEA) Award < <http://www.evolutionssociety.org/society-awards-and-prizes/inclusiveness-diversity-equity-and-access-idea-award.html> >. The IDEA Award will be given to a person at any career stage who has strengthened the ecology and evolutionary biology community by promoting inclusiveness and diversity in our fields. The award can also be presented to a group. The recipient(s) will each receive a plaque at the annual meeting of ASN/SSB/SSE and a \$1000 honorarium (shared among recipients if more than one).

Deadline: January 15, 2021

Visit the award page to learn more and submit a nomination: <http://www.evolutionssociety.org/society-awards-and-prizes/inclusiveness-diversity-equity-and-access-idea-award.html#call-for-noms>

—
*Kati Moore*she/her/hers *Communications Manager*
Society for the Study of Evolution communications@evolutionssociety.org www.evolutionssociety.org
communications@evolutionssociety.org

CallForProposals Biodiversity FRB-CESAB2020

The Center for Biodiversity Synthesis and Analysis (CESAB < <https://www.fondationbiodiversite.fr/en/-about-the-foundation/le-cesab/> >) of the French Foundation for Biodiversity Research is opening a call for research projects, to fund at least three innovative projects relating to the synthesis of ideas and concepts and/or the analysis of existing data. The main aim of these projects should be to improve scientific knowledge of biodiversity and demonstrate how we can use this knowledge to better protect it. The submitted projects can deal with any topic related to biodiversity, in the fields of natural sciences or human and social sciences.

The selected projects will be funded for a period of three years, including: the recruitment of a post-doctoral student for two years, the organization of six meetings of the working group at CESAB and the promotion and publication of the results. The CESAB will also provide logistical, technical and administrative support.

Members of CESAB projects share their scientific expertise, available data and modeling tools to answer a wide range of biodiversity questions at all spatial and temporal scales. Composed of a maximum of 14 experts, each selected project must be coordinated by a recognized scientist attached to a French research organization. Please share!

* Pre-proposal deadline: 1st December 2020 * More information: <https://www.fondationbiodiversite.fr/en/calls/appel-projets-frb-cesab-2020/> [signature_701717591]

Marie-Claire Danner

SCIENCE OFFICER

IPBES TSU FOR THE ASSESSMENT OF SUSTAINABLE USE OF WILD SPECIES

CHARGÉE DE COMMUNICATION

CESAB (CENTRE DE SYNTHÈSE ET D'ANALYSE SUR LA BIODIVERSITÉ)

+33 (0)4 67 69 85 46 / +33 (0)6 71 66 46 58

Basé à l'Office Français de la Biodiversité (OFB) :

Immeuble Le Tabella - 125, rue Adam Smith - ZAC de l'aéroport - 34470 PEROLS

Siège de la FRB : 195, rue Saint-Jacques 75005 PARIS

Marie-Claire DANNER <marie-claire.danner@fondationbiodiversite.fr>

DemographicsTutorial for Springer Book

We are happy to announce the publication of our book on "Demography of Population Health, Aging and Health Expenditures" by Springer.

This is the Volume 50 of the "The Springer Series on Demographic Methods and Population Analysis".

<https://www.springer.com/gp/book/9783030446949>

Following this book theoretical chapters and provided programs you will be able to do estimations as the

provided in the attached paper on:

“How the unsolved problem of finding the Healthy Life Expectancy (HLE) in the far past was resolved: The case of Sweden (1751-2016) with forecasts to 2060 and comparisons with HALE”

Accordingly, a very important Demographics Tutorial and Webinar is organized.

Subscribe electronically at <http://www.smta.net/-demographicstutorial.html> . You will be able to follow advanced Stochastic Theory applied to Demography and Health State estimates.

To use

Advanced programs to estimate the Healthy Life Expectancy the Healthy Life Years Lost to Disability in connection to HALE forms from the World Health Organization, the HLE from Eurostat and other forms as HALE and DALE from Burden of Disease studies.

The Sullivan method is also provided in the Computer Program dealing with the Healthy Life Expectancy estimation.

All these important futures are included into the appropriate program and the guidelines. Even more the Gompertz and Weibull model programs are also provided ready to apply.

Before to participate in the Tutorial download the appropriate programs from the webpage <http://www.smta.net/demographicstutorial.html> read the instructions and be ready to run the programs with the instructor.

See you in the Tutorial-Webinar,

Prof. Christos H Skiadas

The 19th Conference of the Applied Stochastic Models and Data Analysis International Society ASMDA2021 and

DEMOGRAPHICS2021 WORKSHOP

1 - 4 June 2021, Athens, Greece

celebrating the 40th year of successful conferences worldwide

<secretar@smta.de>

EECGAward DeadlineDec14

DEADLINE for receipt of applications for the 2021 Evolutionary, Ecological, and Conservation Genomics (EECG) Research Awards: Monday, 14 December 2020

The American Genetic Association grants EECG Research Awards to graduate and post-doctoral researchers who are at a critical point in their research, where additional funds would allow them to conclude their research project and prepare it for publication.

Application materials are available on the AGA website. Learn more at <https://www.theaga.org/eecg-awards.php> Anjanette Baker <theaga@theaga.org>

Grenoble Internship Biodiversity

WHAT : Internship “Biodiversity and emerging diseases: a study of evolutionary biology using computer simulations.” WHERE : Grenoble, France

* Context: The COVID-19 pandemic has revived a debate on the effect of biodiversity decline on the increase in the frequency of zoonoses such as the one that gave rise to the ongoing pandemic. Two mechanisms are generally invoked to explain the negative correlation between biodiversity and the frequency of zoonoses: the first implies that some of the human activities that destroy biodiversity induce contact between it and humans and thus increase the risk of zoonosis. The second corresponds to the dilution effect which invokes various community ecology processes to explain the fact that in areas with low biodiversity, the abundance of parasites is often greater, thus increasing the risk of zoonosis. Although, from the parasite’s point of view, the change of host -a zoonosis- represents a major evolutionary leap, the negative correlation between biodiversity and the frequency of zoonoses has hardly ever been studied from an evolutionary ecology perspective. This is the aim of this internship.

* Aim of the internship: This course aims to study the interactive effects between the 6th mass extinction of living organisms and phenotypic stochasticity on the frequency of zoonoses using simulations of host-parasite

co-evolutions. A mathematical and computer model to simulate host-parasite co-evolution and changes in host species has been developed. It allows studying the effect of host population size on the risk of zoonosis. The aim of this internship is to extend this model to include phenotypic stochasticity and to study the interaction effect between this and the host population size on the risk of zoonosis. The model is programmed in Julia [https://fr.wikipedia.org/wiki/Julia_%28langage%29]. This internship will require a good knowledge of evolutionary biology, a certain ability for probabilistic calculation, and a strong ability for programming or at least a good control of computer tools and a very strong motivation to learn programming. Depending on the progress of the student, this question *might* also be studied at the genomic level using the model Aevol [<http://www.aevol.fr/>] developed by a team from Lyon with whom we collaborate.

* Geographical situation and conditions of the internship: The internship will take place in the GEM team, headed by Dominique Schneider, in the research unit TIMC-IMAG (<https://www-timc.imag.fr/>) at University Grenoble Alps. As this internship does not require any experimentation, a possible re-confinement will only have a moderate impact. The remuneration will be as usual 620 euro /per month.

* Application: Please send a CV and a letter of motivation to Hugo Mathé-Hubert hugo.mathehubert@univ-grenoble-alpes.fr and Dominique Schneider Dominique.Schneider@univ-grenoble-alpes.fr. Feel free to contact Hugo Mathé-Hubert for further information before applying.

– Hugo Mathé-Hubert Post-doc Laboratoire TIMC-IMAG - Équipe TrEE - UMR5525 CNRS Institut Jean Roget - Bureau 510 - 38700 LA TRONCHE - France 09 77 21 66 66 / mathehuh@univ-grenoble-alpes.fr / hugomh@gmx.fr

We do not understand what we see but see what we understand. (<https://doi.org/10.3389/fevo.2020.00214>)

Thoughts appear from doubts and die in convictions. Therefore, doubts are an indication of strength and convictions an indication of weakness. Yet, most people believe the opposite.

In their wide majority, civilisations are believing or have believed in a religion. Moreover, stories that are told by these religions are mutually incompatible with each other, and thus *at least* all but one are wrong. Humans / the human societies therefore have a (almost)-universal tendency to believe in wrong things. QED.

InstAdvancedStudy Berlin GainTimeToThink 2021-22

Dear colleagues,

We would be grateful if you could spread the below added call in your network. This Fellowship promotes early career life scientists in a very unique way!

The call can also be found here: <https://www.wiko-berlin.de/fellows/fellowships/college-for-life-sciences/-application/gain-time-to-think-2021-22> .

Thank you and best regards,

Francisco M. Casas

Francisco Martínez Casas Fellow-Auswahl / Admission Office Wissenschaftskolleg zu Berlin / Institute for Advanced Study Wallotstr. 19, D-14193 Berlin Tel. +49 (0)30-89001-161 Fax +49 (0)30-89001-100 www.wiko-berlin.de Gain time to think! 2021-22

college for life sciences fellowships deadline: November 16, 2020

APPLY ONLINE

CALL FOR APPLICATIONS

The College for Life Sciences is a junior program of the Wissenschaftskolleg zu Berlin (Institute for Advanced Study). It offers excellent early career researchers in the life sciences and medicine an opportunity to take a break from the lab and clinic. Fellows will gain time to work and develop their own projects and immerse themselves in the intellectually and culturally diverse environment of the Wissenschaftskolleg. Each year the Wissenschaftskolleg welcomes around 40 internationally recognized senior as well as promising junior scholars from all fields of knowledge, including the humanities, the social sciences, and the arts. Fellows of the College for Life Sciences are invited to become part of this “learning community”. Our goal is to promote a kind of science that transcends disciplinary boundaries and goes beyond established issues and approaches. As we do not provide lab space, it is not “just another fellowship”, but the opportunity to step back from your lab routines and reflect on your institutional and intellectual “settings”. Through the College for Life Sciences we promote scientists at the beginning of their career, i.e., postdocs, junior group leaders, lecturers, and assistant, associate, and junior professors. The fellowships are intended for residencies of 3-6 months during the

academic year 2021-22, i.e., September 2021 - June 2022.

BENEFITS OF THE FELLOWSHIP Three to six months' residency at the Wissenschaftskolleg in Berlin
A full stipend based on your previous salary
Studio accommodation on campus
Freedom to pursue a project of your choice
Insight into new areas of knowledge and new research cultures
Integration into a unique international community of Fellows
Access to Berlin's excellent scholarly and scientific community
Access to the Wissenschaftskolleg's outstanding library and IT services
For more details please visit: wiko-berlin.de/cfls.

APPLICATION AND REQUIREMENTS Please apply by November 16, 2020 with a project outline (about 1000 words), a letter stating your motivation for wishing to obtain a fellowship (about 500 words), your complete curriculum vitae, and a list of your publications here: <https://cfls-application.wiko-berlin.de/>. You are completely free to choose the project that you will pursue at the Wissenschaftskolleg; we impose no thematic presettings whatsoever. You must have obtained your doctorate by the start of your fellowship, and we also require that you have at least one lead-author publication in a peer-reviewed journal. There are no restrictions regarding your discipline of origin in the life sciences, your nationality, or your age etc. If you have been a principal investigator for longer than five years, though, you are advised to apply for a regular fellowship at the Wissenschaftskolleg. Applications from scientists working at institutions in Berlin cannot be taken into consideration. We would be grateful if you could post this announcement at your institution and circulate it among colleagues and scholars who you think would be interested in applying to this program.

Dr. Giovanni Frazzetto Academic Coordinator College for Life Sciences application.cfls@wiko-berlin.de

Wissenschaftskolleg zu Berlin Institute for Advanced Study Wallotstraße 19 14193 Berlin Tel.: +49 30 89 00 1 - 123 www.wiko-berlin.de/cfls

cfls@wiko-berlin.de

J F Crow UW Madison CallForApplications

The J.F. Crow Institute for the Study of Evolution at the University of Wisconsin-Madison is inviting early-career evolutionary biologists from outside UW-Madison to apply to participate in an early-career scientist seminar series in spring 2021. For more information about our Institute, please visit our website (evolution.wisc.edu). Please come share your science with our community!

The 3-5 speakers selected for the series will be invited to visit UW-Madison. The speaker will present a 50-minute seminar, ideally aimed at evolutionary biologists with a broad range of backgrounds. The speaker will also participate in a 45-minute discussion after the seminar with undergraduate evolution majors. For the day of the seminar, we will schedule meetings with faculty and students working in evolutionary biology. The speaker will receive a \$150 honorarium.

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

Applications for a spring seminar are due by November 13th. The application is available at <https://evolution.wisc.edu/seminars/early-career-seminars/>. If you have any questions please contact Tiago Ribeiro (tribeiro@wisc.edu), Joseph Sardina (jsardina@wisc.edu), or Linh Nguyen (lmnguyen3@wisc.edu).

Best,

– Tiago da Silva Ribeiro Department of Integrative Biology, UW-Madison

tiaaagosr@gmail.com

PostDocs

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BristolBudapest 2 OriginOfTheEukaryoticCell

Two postdoc positions are available as part of a Simons/Moore Foundation-funded project on the origin of the eukaryotic cell.

We are searching for postdocs to develop and apply new phylogenomic methods (particularly gene tree-species tree reconciliation methods) to work on the timing of eukaryotic origins and the nature of the genetic contributions from archaeal host, bacterial endosymbiont, and other possible sources.

We offer a chance to make progress on fundamental evolutionary questions, and, as part of a broader initiative, to interact with leading thinkers in the field.

One of the positions (2.5 years) is in the Paleobiology and Biodiversity Research Group at Bristol (with

a supervisory team consisting of Tom Williams, Davide Pisani, and Phil Donoghue), and one in the lab of Gergely Szöllősi at the Hungarian Academy of Sciences (2 years).

The Bristol post is aimed at a “biologist who can use a computer” (applying methods to new datasets is the #1 task), while the Budapest post is aimed at someone with an interest in algorithms and method development (#1 task is extending existing methods, e.g. ALE, and developing new ones).

The boundaries between the two aims, however, overlap and the postdocs will, we hope, work closely together.

Given the challenges of the ongoing pandemic, we’re open to flexible/remote arrangements.

For the Bristol position please see <http://www.bristol.ac.uk/jobs/find/details.html?nPostingId=76014&nPostingTargetId=198491&id=Q50FK026203F3VBQBV7V77V83&LG=UK&mask=newuobext> (deadline 8th November) and contact tom.a.williams@bristol.ac.uk for informal enquiries.

For the Budapest position please see: <http://->

ssolo.web.elte.hu/MOORE_postdoc.txt (deadline 30th November) and contact ssolo@elte.hu for enquiries

Gergely J Szöllősi <sszolo@gmail.com>

BrookhavenNatLab PlantMicrobeEvolution

POSITION TITLE: Post Doctoral Research Associate Biology

Specific job related title: Post doc in PlantMicrobe Bioinformatics/Evolution

POSITION DESCRIPTION We are seeking a bioinformatician to responses to stress in plants and microbes using transcriptomics and functional genomics. The post doc will be involved in many exciting projects using newly assembled reference genomes of host plants and nitrogen-fixing symbiotic microbes. We are particularly interested in the role of gene duplications that can enhance tolerance to stress or toxic environments, and how stress tolerant microbes provide benefits for host plants. Incorporation of evolutionary and/or ecological aspects and analyses into this research is highly encouraged. The research is essential to meet the DOE's Biological and Environmental Research (BER) mission to use genome-enabled approaches to understand the relationship between soil biogeochemistry, nutrient cycling by plants, and the movement or transport of metals ions from soils into plant biomass (<https://www.energy.gov/science/ber/biological-and-environmental-research>). This position has a high level of interaction with an international and multicultural scientific community, including the Joint Genome Institute (JGI) and the Environmental Molecular Sciences Laboratory (EMSL), both DOE run facilities. The research will support two JGI funded community science awards (New Investigator and Functional Genomics). Because this position is entirely computational, opportunities for working remotely are possible.

Essential Duties and Responsibilities: - Quantify gene expression changes in response to stress treatments such as heavy metals, temperature, drought - Assess the role of gene duplications on expression level - Identify candidate genes that provide greater tolerance to stress - Develop statistical pipelines to identify differentially expressed genes and co-expression networks - Integrate genome wide association study (GWAS) candidates with transcriptomics data to identify target genes for functional studies

Required Knowledge, Skills, and Abilities:

- Requires a Ph.D. in bioinformatics with focus on genomics, or computational biology, evolutionary genomics, plant genomics/agricultural genomics or related field (If not already graduated, Ph.D. must be expected within six months).
- At least ~3 years laboratory research experiences in the area of bioinformatics, genomics and next-generation sequencing.
- Experience mapping and analyzing RNA-seq data, including differential expression analysis (e.g. DeSEQ, edgeR)
- Ability to install and use bioinformatics software (i.e., samtools, BWA, GATK, plink) in a Linux framework
- Proficient in one or more programming languages such as python or perl, and ability to write and modify scripts in R
- A proven track record of experimental design, execution and data analysis as reflected in manuscript writing and successful publication in peer-reviewed journals.
- Demonstrated track record of poster presentations and/or oral presentations at scientific meetings

Preferred Knowledge, Skills, and Abilities: (bulleted)

- Standard genome annotation software experience with genome assembly and annotation using RNA-seq data
- Gene co-expression network analysis using WCGNA or other tools
- Single gene alignment software and PCR primer design
- Basic or advanced principles in population genetics

Other informaiton:

- Review of applications begins immediately. Applications will be accepted until the position is filled.
- Competitive salary will be commensurate with relevant experience and qualifications. Research is under the direction of Dr. Tim Paape. BNL policy requires that research associate appointments may be made to individuals who have received their doctorate within the past five years.
- Please send CV and cover letter to tpaape@bnl.gov. Please go to www.bnl.gov, click on Job Opportunities and then Search Job List to apply for this position. Please apply at tpaape@bnl.gov. Brookhaven National Laboratory is an equal opportunity employer committed to building and maintaining a diverse workforce.

WHY WORK AT BNL?

Brookhaven National Laboratory is a multipurpose research institution funded primarily by the U.S. Department of Energy's Office of Science. Located on the center of Long Island, New York, Brookhaven Lab brings world-class facilities and expertise to the most exciting and important questions in basic and applied science from the birth of our universe to the sustainable energy technology of tomorrow. We



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BrookhavenNatLab PlantMicrobeInteractions

Postdoctoral position in Plant-microbe interactions

A postdoctoral position is available in the laboratory of Dr. Tim Paape in the Biology Department at Brookhaven National Laboratory on Long Island, NY. The position involves studying plant-microbe interactions of nitrogen fixing, symbiotic bacteria and legume plant systems using genetic and genomic techniques. We are interested in genetic, cellular and evolutionary mechanisms involved in detoxification of plant tissues when exposed to heavy metals. The post doc would be involved in several possible lines of investigation including but not limited to: transcriptomics (RNA-seq), qPCR, functional genetics using gene knock-outs (RNAi, CRISPR), XRF imaging in both host plants and microbes using beamlines at NSLS-II, genome annotation of newly assembled rhizobia genomes, genetic diversity analysis, and quantitative genetics. The post doc will be encouraged to pursue independent aspects of plant-microbe interactions and role of ion detoxification by both plants and microbes, as well as combining several interdisciplinary aspects using the techniques listed above. Incorporation of evolutionary and/or ecological aspects and analyses into this research is highly encouraged. Equally, we hope to expand our group's skillset by incorporating incoming skills. This position has a high level of interaction with an international and multicultural scientific community. The surrounding areas of eastern Long Island have nice beaches, forested areas, organic farms, and vineyards.

Essential Duties and Responsibilities: - Conduct experiments using host plants and symbiotic microbes for ionomics, transcriptomics and X-ray imaging to identify genotype x genotype effects of adaptive host microbe interactions - Cultivate plants and microbes using sterile techniques for genetic and imaging experiments - Sample preparation for RNA-seq, metabolomics and functional characterization of genes and pathways regulating plant metal homeostasis - Molecular analysis of candidate ion transporter genes - RT-PCR preparation and qPCR

analysis, Sanger sequencing and basic sequence alignment/analysis - Using publicly available databases to identify sequence homology (i.e. BLAST, NCBI)

Required Knowledge, Skills, and Abilities: - Ph.D. in plant biology, molecular biology, genetics, evolutionary biology, biochemistry, or related field - Demonstrated knowledge in molecular, genetic and biochemical characterizations of genes and pathways. - Experience in manuscript writing and demonstrated track record of publication of research in high quality peer-reviewed journals - Ability to work collaboratively in a team-based research environment - Quantitative genetics and phenotype analysis - Analysis of genomics data, RNA-seq, Illumina, SNP calling

Preferred Knowledge, Skills, and Abilities: - Experience with mass spectrometry imaging and X-ray fluorescence imaging - ICP-MS or similar mass spectrometry for ion analysis - Knowledge of plant physiology, metal homeostasis, biochemistry - Microscopy and image analysis - Evolutionary or ecological genetics/genomics

WHY WORK AT BNL?

Brookhaven National Laboratory is a multipurpose research institution funded primarily by the U.S. Department of Energy's Office of Science. Located on the center of Long Island, New York, Brookhaven Lab brings world-class facilities and expertise to the most exciting and important questions in basic and applied science from the birth of our universe to the sustainable energy technology of tomorrow. We operate cutting-edge large-scale facilities for studies in physics, chemistry, biology, medicine, applied science, and a wide range of advanced technologies. The Laboratory's almost 3,000 scientists, engineers, and support staff are joined each year by more than 4,000 visiting researchers from around the world. Our award-winning history, including seven Nobel Prizes, stretches back to 1947, and we continue to unravel mysteries from the nanoscale to the cosmic scale, and everything in between. Brookhaven is operated and managed by Brookhaven Science Associates, which was founded by the Research Foundation for the State University of New York on behalf of Stony Brook University, and Battelle, a nonprofit applied science and technology organization.

Other information:

- BNL policy requires that research associate appointments be made to individuals who have received their doctorate within the past five years. - The initial appointment will be one year with annual renewal contingent upon satisfactory performance and continued funding.

Informal inquiries and letters of interest can be emailed

to tpaape@bnl.gov The formal job requisition (#2348) will be soon be

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ClemsonU SnakeVenomEvolution

Postdoctoral opportunity: Genome and venom evolution in snakes.

The laboratory of Christopher Parkinson, Department of Biological Sciences, Clemson University, is looking for a highly motivated postdoctoral associate to join an active research team investigating venom and genome evolution in snakes. This two year position is funded partially by an NSF Dimensions of Biodiversity award and Clemson University. Our NSF Dimensions award is a collaboration among Lisle Gibbs at Ohio State, Darin Rokyta at Florida State and in Brazil- In?cio Azevedo, Felipe Grazziotin, Ana Moura, and Erika Hingst-Zaher at Butantan Institute. We are investigating the evolution of snakes, their venom and their genomes in both the traditionally classified venomous snakes as well as the ???nonvenomous??? snakes to understand the diversification of venom systems and its link to speciation. These projects involve research at the intersection of population genomics, transcriptomics, quantitative biochemistry, phylogenomics and computational biology. The selected individual will be responsible for generating WGS of numerous snake species, all downstream bioinformatic analyses and potentially have the opportunity to conduct international fieldwork.

Qualifications: Candidates should have completed or be within 6 months of completing their Ph.D.???s in an appropriate related field. I am seeking a scientist who is creative & talented, has a strong publication record, is organized, and possesses excellent communication skills. Additionally, the successful candidate should have a strong computational background and previous experience working with NGS data sets and phylogenetics. The candidate is expected to generate fellowship and grant applications, which will help further prepare them for a successful academic career.

The position is located in Clemson, SC at Clemson University. Interested candidates should apply via

Clemson???s online site: <http://apply.interfolio.com/79314> Any questions contact: Chris Parkinson (viper@clemson.edu). Review of applications will begin immediately and continue until the position is filled. For more information on the Parkinson lab see: <https://www.parkinsonlab.com/> Department of Biological Sciences and

Department of Forestry, and Environmental Conservation 190 Collings St., 157b Life Sciences Facility, Clemson University,

Clemson, SC 29634

(864) 656-3058

Christopher L Parkinson <viper@clemson.edu>

EarlhamInstitute InsectGenomics

Postdoctoral Research Scientist

Applications are invited for a Postdoctoral Research Scientist to join the group of David Swarbreck (Earlham Institute) in a collaborative project with Saskia Hogenhout (John Innes Centre) and Cock van Oosterhout (School of Environmental Sciences, University of East Anglia) to conduct research on a BBSRC funded project studying the population genomics and evolution of host adaptation in a (largely) clonally evolving pest species, the green peach aphid (GPA) *Myzus persicae*.

The role:

The Postdoctoral Research Scientist will undertake innovative research utilising next generation sequencing and functional genomics tools to understand how the green peach aphid *Myzus persicae* is able to colonize multiple plant species and evolved resistance to a large range of pesticides. The Researcher will be based in the group of David Swarbreck (EI) and interact closely with the groups of Hogenhout (JIC) and van Oosterhout (UEA) on the Norwich Research Park. They will perform genome analysis and annotation, identify genes that are differentially expressed and spliced, correlate this with DNA methylation data and conduct evolutionary analyses of genes among insect species.

The ideal candidate:

The successful applicant will be highly motivated with an interest in insect genomics, various aspects of RNA biology such as (small) RNA sequencing and annotation, be familiar with the analysis of next generation sequencing data and have experience of bioinformat-

ics software, unix and scripting languages. They will work within a larger team and hence good interpersonal communication skills and an excellent track record for reporting, organising and sharing data is required. Data and analyses have already been generated and candidates with good writing skills are likely to be able to publish quickly

Additional information:

Salary on appointment will be within the range 32,255 to 39,345 per annum depending on qualifications and experience.

The project is for a minimum of five months with a possible five month extension, and the start date is immediate. The genome and transcriptome data for the project has been generated already, and hence, the successful candidate would be able to conduct the bioinformatics remotely, communicating with the research team by MS Teams, Skype or Zoom.

Please note, this post does not meet UKVI requirements to provide Tier 2 visa sponsorship.

For further information and details of how to apply, please visit our web site <http://jobs.earlham.ac.uk/> or contact the Human Resources team on 01603 450462 or nbi.recruitment@nbi.ac.uk quoting reference 1003950.

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 is 4 Nov 2020.

“Cock Van Oosterhout (ENV - Staff)” <C.Van-Oosterhout@uea.ac.uk>

EURAC Italy HumanPopulationGenetics

One Postdoctoral position at the Eurac Research - Institute for Mummy Studies in Bolzano (Italy)

We are looking for a Post-Doctoral researcher with a strong background in computational and statistical skills and with consolidated experience in human population genetic studies. The candidate should have expertise in the analysis of human genomic data from ancient and modern samples. The project will apply in-depth genomic analyses to the reconstruction of human populations history.

Project: We want to characterize the genomic diversity

of prehistoric individuals (from Neolithic to the Middle Bronze Age with a focus on the Copper age) from the Iceman’s territory (eastern Italian Alps). Comparison with existing genomic data from ancient and present-day individuals from Europe and the Middle east will make it possible to obtain a more comprehensive picture of the genomic variation of prehistoric Europe, as well as gaining an insight into the Neolithic migration waves from Anatolia to south Europe and eastern Alps. Fine-scaled genomic analysis of the prehistoric individuals on a micro-regional scale (Trentino Alto Adige region) and comparison with local archaeological data will allow to explore the presence of a so-called “Alpine cultural group” during the Copper Age.

Tasks: - To perform the bioinformatic analyses of the genomic data produced during the project - To construct comparative genomic datasets (from ancient and present-day populations) - To make the statistical analyses of the genomic data, including classical population genetic analyses, simulations to test different hypotheses on demographic scenarios and, application of fine-scaled analytical methods. - To interpret and summarize the results in peer-reviewed publications

Requirements: - PhD degree in population genetics, statistical genomics, bioinformatics or related fields - Solid background in computational and statistical skills with expertise in genomic analyses of data from ancient and modern samples - Proficiency in spoken and written English - Ability to work in a team and in an interdisciplinary environment

Duration: We offer two-years full-time Postdoc position, starting from January 2021 on.

Our Institute is internationally renowned for its research on the Tyrolean Iceman and other mummified and skeletal human remains of different periods from all over the world. The candidate will have the opportunity to work in a stimulating multidisciplinary team composed by researchers from different fields and countries and, moreover, to collaborate with scientists from other national (University of Trento) and international (Uppsala University) institutions. EURAC is an equal opportunity employer.

How to apply: Interested candidates should submit their application (CV, including a brief description of main research interests; motivation letter; contacts of references; publications list) by 10.11.2020 to mummy.studies@eurac.edu

Please mention in your E-mail the subject: Postdoc, Prehistoric Alps

For further information please contact Valentina Coia: valentina.coia@eurac.edu

Coia Valentina <valentina.coia@eurac.edu>

Ewha Korea Theoretical Population Genetics

A postdoctoral position in theoretical population genetics, supported until 2024 by the National Research Foundation of Korea, is available in the lab of Dr. Yuseob Kim at Ewha Womans University, Seoul, Korea. The major aim of research in this lab is to infer evolutionary genetic processes that play major roles in shaping/maintaining non-neutral and neutral genetic variation in nature, by developing and analyzing mathematical models and performing computer simulations. We can support theoretical research in the broadly-defined area of evolutionary/population genetics with this grant. Therefore, a candidate with his/her own research plan is encouraged to apply. The research topic can also be chosen among those that were already initiated by the principal investigator, which include 1) modeling selective sweeps under complex demography, 2) patterns of molecular evolution and polymorphism with genomic imprinting, 3) mathematical models of fluctuating selection and negative frequency-dependent selection, and 4) exploration at the boundary of population genetics and population ecology using absolute fitness. Candidates are expected to have completed a PhD in biology, mathematics, physics or related field, with strong mathematical and/or computer-programming skills. The ideal starting date is March 1st, 2021.

Ewha Womans University is located in central Seoul and a major research-oriented University in Korea. Ewha provides an excellent research environment with beautiful and lively campus and is surrounded by areas of vibrant student culture and very safe environment for foreign students. Division of EcoScience is a comprehensive academic unit devoted to ecology and evolutionary biology and home to numerous international students and postdoctoral researchers. The official language of the lab is English. Other information can be found in our lab website (<http://home.ewha.ac.kr/ykim>).

Please e-mail your application (research interest, CV, contact information for two referees) to yuseob@ewha.ac.kr. Informal inquiry about the position, lab and living in Korea is welcomed. Applications will be accepted until November 15, 2020.

Yuseob <yuseob@ewha.ac.kr>

Ewha UKorea Evolutionary Genomics

A post doc position is available at the Animal Phylogenomics Lab at Ewha Womans University in Seoul, South Korea.

We are seeking highly motivated, enthusiastic scientists with expertise in comparative genomics and phylogenomics areas. Adaptations to new environments often entail drastic phenotypic modifications, but the genomic basis of such adaptations is not always well characterized. In my lab, we are focusing on comparative genomics to investigate genomic signatures of evolutionary adaptation in mollusks and marine mammals. Other ongoing projects also include the population structure and genetic diversity of marine invertebrates in the northwest Pacific Ocean, and nematode phylogeny. See Google Scholar < <https://scholar.google.com/citations?user=-FZ2L9S0AAAAJ&hl=ko> > for a list of recent publications.

The post doc's responsibilities will include joining a team of some ongoing comparative genomic projects (of molluscan and/or marine mammal genomics) in my lab. The candidate will also be able to participate in many other projects of population genetics and phylogeography of marine animal groups.

Ewha Womans University < <http://www.ewha.ac.kr/-ewhaen/index.do> > is a large, highly acclaimed university located in the center of Seoul, one of the most exciting and technologically advanced cities in Asia. The university attracts excellent faculty and students from around the world, and there are many opportunities for international social life and academic collaboration within campus and beyond. Both male and female applicants are eligible for applying for on-campus Housing rent if needed.

The candidate will be responsible for:

- Managing NGS data and comparative genomic analyses;
- Participating in a team of scientists to offer bioinformatics, genomics, transcriptomics, and metabarcoding analysis;
- Drafting the manuscript, collaborating with research staffs on the use of relevant bioinformatics software and tools;

The successful candidate is required to possess the fol-

lowing:

-should complete Ph.D. in Computational Biology, Bioinformatics, and Genomics: comparative genomics, transcriptome analysis, phylogenetic analysis, and/or genome wide association studies

-must be the first author on at least one paper published in a leading journal of the genomic science field.

-experience with bioinformatics and genomic analyses, including programming in any scripting language (e.g. PERL or Python) and ability to handle a large data set efficiently using scripts, particularly in the analysis of NGS data;

-knowledge of statistical software tools and packages (e.g. R);

Preferred qualifications: Excellent or native English skills and experience in genomics are highly desired.

Salary and other benefits: The position will be available for 2 years and the extension for the next years is possible depending on the performance. The annual salary is 40,000 USD, plus social benefit including a health insurance.

Send C.V. or inquiries to Dr. Joong-Ki Park, jkpark@ewha.ac.kr. Position is open until filled.

Joong-Ki Park <jkpark@ewha.ac.kr>

FrancisCrickInst EvolutionaryDevelopment

A postdoc position (fully-funded for 4 years) is available within the Evolutionary Developmental Biology Lab headed by Margarida Cardoso Moreira at the Francis Crick institute in London.

In the Evolutionary Developmental Biology Lab we study how organs originate and how they diversify across species using vertebrate placentas as our model. We combine tools and principles from evolution, development, and large-scale genomics (e.g., single cell transcriptomics and epigenomics, spatial transcriptomics). We generate and analyse our own large-scale genomics datasets, so our team includes experimentalists and computational biologists (hybrid expertise always welcomed). This position is to strengthen our computational side and so we are looking for someone with demonstrated ability performing large-scale data analyses, preferably in genomics.

We are looking for a postdoc that will lead the computational analyses of our work on the evolution and development of the mammalian placenta. We want to understand one of the most fascinating aspects of pregnancy, the mother's tolerance to the intimate contact between its own cells and those of her foetus. The postdoc will study the development of the maternal-fetal interface across a variety of mammals (including humans) using single-cell transcriptomics and epigenomics datasets produced by our group.

The suitable candidate will have a PhD degree in Biology (evolutionary biology, developmental biology, genomics, with strong computational expertise) or Computational Biology (bioinformatics, system biology), or be in the final stages of PhD submission. Computational experience is necessary, as well as a demonstrated ability to perform high-quality research, and capacity to formulate hypotheses, test them and follow through.

We are located at the Francis Crick Institute, a world-class institution devoted to understanding the fundamental biology underlying health and disease. We are located in the heart of London, in a brand new state-of-the-art building which brings together 1500 scientists and support staff working collaboratively across disciplines, making it the biggest biomedical research facility under a single roof in Europe.

For a job description and application form visit the Crick vacancies portal for Vacancy ID: 014987

For more general postdoc information: www.crick.ac.uk/careers-and-study/postdocs

Please send any informal enquiries to: margarida.cardosomoreira@crick.ac.uk

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Margarida Cardoso Moreira
<margarida.cardosomoreira@crick.ac.uk>

Gothenburg TreeOfLife

Join us in building the Tree of Life for all plants! In this 2-year postdoc project you'll work with a strong international team to push the frontiers in molecular phylogenetics. Based in Gothenburg, Sweden.

Project description The rapid increase in publicly available DNA sequence data now offers exciting opportunities for building the 'Tree of Life' (phylogenies) that establishes the relationships and temporal origins of all living organisms. Although several attempts are being made to build comprehensive molecular phylogenies, a major challenge remains in how to effectively add newly generated sequences to such trees without the need to start from scratch every time. This project - "Online phylogenetics" - will explore emerging Sequential Monte Carlo techniques to add new sequences to existing trees under a fully Bayesian framework. It will then validate the method by building a continuously updating phylogenetic tree for all plant species sequenced to date. Alternative approaches for building large trees, which integrate genomic-wide and single-gene data, may be explored if necessary. The project is a collaboration among internationally leading researchers at the University of Gothenburg (Gothenburg Global Biodiversity Centre), the Royal Botanic Gardens, Kew, the Swedish Museum of Natural History, the University of Stockholm, the Royal Institute of Technology, Aarhus University and the University of Michigan. Funding is provided through a competitive grant from the Swedish Research Council.

Job assignments This employment includes the following tasks: further development and/or testing of software for phylogenetic analysis; responsibility for managing own workload; production of scientific articles; effective communication across the team and beyond; among other assignments depending on the candidate's skills and interests in relation to the project's objectives. **Eligibility** The applicant must hold a PhD degree in an area relevant for the tasks at hand (e.g., computational biology, molecular phylogenetics, bioinformatics) or a foreign exam substantially equivalent to a PhD degree in a relevant subject. Preference will be given to candidates who have been awarded the degree no more than three years before the application deadline. Applicants with a degree awarded earlier may also be preferred if specific reasons exist. Such specific reasons may be a leave due to illness, parental leave or other similar

circumstances.

Assessments We are seeking a highly motivated person to take a leading role in this project. At least one of the following skills are crucial for this employment:

Experience handling DNA data for molecular phylogenetics, genomics or related fields
Experience with Bayesian inference
Basic knowledge in biological systematics, taxonomy and/or molecular dating

What is advantageous/ beneficial:

Experience with advanced inference algorithms, such as Markov chain Monte Carlo or Sequential Monte Carlo
Skills in functional or probabilistic programming languages
In addition, the candidate should have published or submitted articles or other scientific deliverables (such as software) in this field, and excellent communication skills in English, written and spoken. The employment is a full-time position for two years placed at the Department of Biological and Environmental Science. The application must be written in English and include:

A cover letter with the applicant's justification for the application, i.e., that describes how the applicant meets the selection criteria
In the cover letter, also include the following assessment task: "Name and motivate what you see as one of the most important advancements in the field of molecular phylogenetics in the last c. 10 years" (max. 300 words). Applications lacking this will not be considered. A full list of qualifications (CV) including contact information to 2-3 potential referees
Certificate of PhD exam and other educations of relevance
Complete list of publications, including submitted and accepted manuscripts
Employments certificates and other documents deemed important by the applicant

The most qualified candidates will be selected for interview(s), which will be held in English and may be performed virtually.

Read the full description and apply via:
https://web103.reachmee.com/ext/I005/-1035/job?site=7&lang=UK&validator=-9b89bead79bb7258ad55c8d75228e5b7&job_id=17282
Allison Perrigo, PhD

Director, Gothenburg Global Biodiversity Centre

Project Manager, Antonelli Lab
allison.perrigo@bioenv.gu.se
Carl Skottsbergs gata
22 B 413 19 Göteborg

Find us on social media:

Twitter: @GGBC_GU; @antonelli_lab

Instagram: @antonelli_lab

Facebook:GGBC

Not a GGBC member yet?Apply here!

Allison Perrigo <allison.perrigo@bioenv.gu.se>

GothenburgU BirdMacroevolution

A one year Carl Tryggers Postdoctoral scholarship in macroecology and macroevolution of birds.

Birds are one of the most charismatic and well-studied groups of animals, yet we know very little about how humans have affected their global patterns of diversity and evolutionary history. This project aims to address these shortcomings.

The applicant will be based at the Department of Biological and Environmental Sciences, University of Gothenburg, Sweden

Closing date: 1st of November 2020

Full details can be found here https://www.gu.se/sites/default/files/2020-10/Trygger_2020_0.pdf Please contact me (Soren.Faurby@bioenv.gu.se) with any questions related to the position.

- Søren Faurby Gothenburg University and GGBC @FaurbySoren

Sören Faurby <soren.faurby@bioenv.gu.se>

Linköping Sweden QuantitativeGeneticsSingleCell

2 year Postdoc, Linköping University, Sweden

Title: Quantitative genetics of gene expression regulation using single cell technologies.

For this position we are looking for a candidate with a strong background in single cell sequencing, quantitative genetics and bioinformatics. The project will involve a large amount of single cell Sequencing data (including both ss RNAseq and ss ATACseq data). The project will require a combination of expression and ATAC seq QTL analysis using the data generated by this single cell sequence data. The candidate should therefore be either proficient in all of these techniques or have spe-

cialisation in at least one (with single cell seq data a particular benefit). The project itself is funded by an ERC consolidator grant and is aiming to use a series of different populations of feralised chickens (domestic birds that have escaped and are now living wild throughout the Hawaiian Island chain), in combination with a wild x domestic chicken intercross to map the genes and polymorphisms underlying their rapid responses to newly imposed selective forces. In this instance the combination of integrating both ss eQTL and ssATAC-seq QTL will enable the identification of the genetic basis of transcriptomic regulation occurring between wild and domestic chickens down to the specific cell type, whilst the simultaneous mapping of epigenomic and transcriptomic data from the same nucleus should also enable the identification of both the causal elements and causal genes for the regulatory machine in the chicken hypothalamus. Representative papers for the intercross and the feral birds can be found in the following articles: Höglund et al. 2020 Nature Ecology and Evolution (<https://doi.org/10.1038/s41559-020-01310-1>), Johnsson et al. 2016 Genetics 202, 327-340, Johnsson et al. Nature Communications 7, 1-11.

Appointment time

A Postdoctor is appointed until further notice, but for no longer than two years. The appointment can be renewed if there are special reasons.

Starting date The position will commence in the beginning of January 2021 or by agreement.

Contact person

Informal enquiries can be made to Dominic Wright IFM, Biology tel: 013281242, dominic.wright@liu.se

All applications must be made through the official channel found at the following:

<https://liu.se/en/work-at-liu/vacancies?rmpage=-job&rmjob=14685&rmlang=UK> dominic.wright@liu.se

LundU PaleogenomicsPlantGenomics

LundU.Paleogenomics&PlantGenomics

Post-doctoral Fellow Position

Lund University, Sweden

<https://lu.varbi.com/what:job/jobID:360030/?lang=en>

We are looking for a postdoctoral fellow

We are accepting applications for a two-year postdoctorate fellow position in biostatistics and genomics to develop machine learning tools to date Viking genomes and identify protective genes in plants. The position is available immediately. See the link above for full details.

Review of applications begins on November 10 2020.

Overview:

Candidates are expected to have an interest in biology, human history and plants alongside strong computational skills with 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 and Prof. Allan Rasmusson, Department of Biology, Lund University, and Prof. Laura Grenville-Briggs Didymus (at the Swedish University of Agricultural Sciences, (SLU), Alnarp, to develop statistical methods for two different projects, one in population genetics and one in functional genomics.

Many thanks!

Eran Elhaik, Ph.D. Assoc. Professor in genomics

Lund University Faculty of Science Department of Biology SE 223 62 Lund Visiting address: Sölvegatan 35

Tel: +46 46-222 9419 Fax: +46 46-222 44 25
 eran.elhaik@biol.lu.se <http://www.eranelhaiklab.org/>
 Eran Elhaik <eran.elhaik@biol.lu.se>

MasarykU PDF PhD PlantEvolutionaryGenomics

POSTDOCTORAL POSITION IN PLANT EVOLUTIONARY GENOMICS

Applications are invited for a postdoctoral position in the research group of prof. Martin Lysak (Central European Institute of Technology, Masaryk University; <http://www.plantcytogenomics.org>) to join project investigating the structure and evolution of Biscutella genomes (Brassicaceae). The project aims to establish high-quality chromosome-scale sequence assemblies of several genomes and analyze the process of post-polyploid diploidization and chromosomal rearrangements. This is a three-year collaborative project between the Lysak group and group of prof. Christian Parisod (University Bern).

Requirements: Candidates for this position must have PhD degree in biology and strong theoretical and practical background in comparative genomics and bioinformatics (experience with chromosome-scale genome assembly including long-range scaffolding is welcome). We are looking for highly motivated researcher able to work independently yet open to frequent interactions with other members of our Czech-Swiss multi-disciplinary team.

We offer: - Interesting job in a dynamically expanding university area - Independent and responsible work - Professional team and pleasant working environment - Incentive wage and work conditions - Employee benefits (meal contribution, 6 weeks of holiday, retirement contribution, healthcare benefits, discounted ticket prices to the cinema, library free for your use, discounted training courses) - Temporary work contract for 3 years

Anticipated start date: 1.01.2021 or upon agreement.

Please send the application (including CV, motivation letter and the contact information of at least three references) by e-mail to martin.lysak@ceitec.muni.cz.

Electronic application deadline is: 15.12.2020

For further information about: - Lysak group, please visit www.plantcytogenomics.org - CEITEC, please visit <http://www.ceitec.eu> - Masaryk University, please visit <http://www.muni.cz> - Brno, please visit <http://www2.brno.cz/index.php?lan=en&nav01=20608&nav02=20617> —

PhD POSITION IN PLANT EVOLUTIONARY GENOMICS

Applications are invited for a PhD position in the research group of prof. Martin Lysak (CEITEC, Masaryk University, Brno, Czech Republic; <http://www.plantcytogenomics.org>) to join project investigating the structure and evolution of Biscutella genomes (Brassicaceae). The project aims to establish high-quality chromosome-scale sequence assemblies of several genomes and analyze the process of post-polyploid diploidization and chromosomal rearrangements. This is a collaborative project between the Lysak group and group of prof. Christian Parisod (University Bern, Switzerland).

Project outline: Genome divergence is usually associated with chromosomal changes that mostly results from short indels, gene loss and duplication, chromosome rearrangements (CRs) and activity of transposable elements (TEs). Molecular events such as CRs, promoting the reduction of genome size and chromosome numbers (i.e. descending dysploidy), appear decisive for the evolution of plants undergoing recurrent whole-genome

duplications. Genomic underpinnings and evolutionary significance of chromosomal restructuring however remain underexplored. We aim to sequence, analyze and compare genomes of nine *Biscutella* species (Buckler Mustards; Brassicaceae) differing by genome sizes (0.7 to 1.2 Gbp) and chromosome numbers ($x = 6, 8, 9$). We will combine genome sequence data with long-range scaffolding and molecular cytogenetics to obtain accurate chromosome-scale assemblies and annotate them using transcriptomics data. Comparative genomics will then quantify small- vs large-scale restructuring events and how much they affect coding vs non-coding regions of chromosomes. This will not only identify underlying molecular mechanisms, but will further address the impact of gain vs loss of gene and TE sequences on genome size evolution and dysploid CRs during species diversification. Providing an unprecedented structural framework for comparative genomics, this work will offer concrete methodological advances and bring fresh conclusions of general interest for molecular plant breeders and evolutionary biologists regarding mechanisms and processes driving the evolution of chromosome number and genome size in land plants.

Requirements:

Candidates should have strong theoretical background in comparative genomics, bioinformatics and experience with analyzing next-generation sequence data. We are looking for highly motivated individual open to frequent interactions with other lab members and members of our Czech-Swiss multi-disciplinary team.

Anticipated start date:

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position, in evolutionary medicine education research and development. The person in this position may work remotely from January 1 - June 30, 2021 with the feasibility of remote vs in-person work to be evaluated thereafter. See the link above for full details.

Review of applications begins Nov 16, 2020

Overview: Our project aims to design, pilot, and test a set of interactive and integrative instructional materials for introductory biology courses. The materials will be focused on the evolutionary basis of human medical conditions. These materials will facilitate student understanding of human evolution, by exploring health conditions. Many, if not most, students are introduced to evolution in an introductory biology course where the topic is studied in isolation from other content for a very short period of time. Instruction is often based broadly on “natural selection and adaptation”, with connections rarely made to the molecular and/or cellular events involved in evolutionary processes. Unfortunately, this type of treatment is some students’ sole experience studying evolution. As a result, many students do not acquire a solid foundation in basic evolutionary concepts, let alone the tools or examples needed to understand how evolution is applicable to humans. In this project we will build, pilot, and disseminate curricular materials that clarify the evolutionary underpinnings of several human diseases and health conditions. The integrative case curriculum by the Evo-Ed project (www.evo-ed.org) provides a backdrop for the type of curriculum development and integrated nature of the curricular materials we plan to design, pilot, and test here. We intend to explore how engaging in evolutionary medicine curriculum, with ties to the relevant social and cultural contexts, helps students develop a better understanding of both evolution and human medicine.

jimsmith@msu.edu

MichiganStateU EvolutionaryMedicineEducation

Post-doctoral Research Associate

Michigan State University

[https://careers.msu.edu/mob/en-us/job/-504107/research-associatexfixed-term?fbclid=](https://careers.msu.edu/mob/en-us/job/-504107/research-associatexfixed-term?fbclid=IwAR2GWo9NgysDDUKAUJmzuWONgrrcNM6IFqYz6Y0574DpicGtdSHV)

[IwAR2GWo9NgysDDUKAUJmzuWONgrrcNM6IFqYz6Y0574DpicGtdSHV](https://careers.msu.edu/mob/en-us/job/-504107/research-associatexfixed-term?fbclid=IwAR2GWo9NgysDDUKAUJmzuWONgrrcNM6IFqYz6Y0574DpicGtdSHV) We are accepting applications for a two-year

MichiganStateU KBS EcoEvolutionaryDynamics

The Fitzpatrick Lab (www.swfitz.com) at the W.K. Kellogg Biological Station, Michigan State University is seeking to fill a postdoctoral research associate position to assist with a recently funded project through NSF’s ‘Bridging ecology and evolution’ track. The research aims to test how variation in recent evolutionary history predicts stress tolerance, adaptive potential, and population dynamics, and to determine the genomic

mechanisms underlying those processes. The primary responsibilities associated with this position will be to coordinate a large-scale mesocosm experiment using eastern mosquitofish (i.e., lead data collection, management, and analysis), mentor post-baccalaureate interns, contribute to broader impact and outreach activities, and write/contribute to manuscripts.

The position will be largely based at Archbold Biological Station (ABS) in central Florida, but travel funds will be included for several visits to W.K. Kellogg Biological Station (KBS) per year. The successful candidate will have opportunities to interact with vibrant intellectual communities at ABS, KBS, MSU's Departments of Integrative Biology, and with members of MSU's Ecology, Evolution & Behavior (EEB) program. The Fitzpatrick Lab is committed to postdoctoral research career development, providing postdocs with opportunities to gain experience in mentoring, teaching, and other professional skills.

The position is for one year initially, renewable depending on performance. Start date is as soon as possible, with some flexibility. Salary is \$50,000 USD plus benefits

Required Degree Doctorate in a related field (ecology, evolution, wildlife biology, conservation biology)

Minimum Requirements - Candidates must have a Ph.D. in a related field - Demonstrated expertise in demographic and/or genomic data collection and analysis - Ability to work independently and under limited supervision as well as collaboratively - Excellent writing ability and communication skills

Desired Qualifications Applicants should have some combination of the following skills: (1) expertise in the analysis of capture-mark-recapture data, (2) statistical modeling experience, (3) bioinformatic expertise, (4) experience working with live vertebrates (ideally fish) in lab or field settings, (4) database management, (5) experience mentoring undergraduate students

Required Application Materials: - Cover letter describing research interests and motivation, including a discussion of how your skills are aligned with the needs of the project described above - CV - Names and contact information for three references - 1-2 published papers or manuscripts in preparation

All documents should be submitted in pdf format at: <https://careers.msu.edu/cw/en-us/job/504089/-research-associatexfixed-term> Review of applications will begin on November 16, 2020. E-mail questions to sfitz@msu.edu

– Sarah W. Fitzpatrick, PhD Assistant Professor Kellogg Biological Station and Dept. of Integrative Biol-

ogy Michigan State University < <http://swfitz.com> > sfitz@msu.edu

“Fitzpatrick, Sarah” <sfitz@msu.edu>

MNHN CNRS France ExtinctionHistoricalDNA

Postdoctoral position in historical DNA, extinction risk, and a genetic time series

A postdoc position is available to work on historical DNA from bird sub-fossils, museum skin specimens and fresh samples to develop a novel real-time assessment of genetic response to anthropogenic environmental change across multiple bird species following first human arrival in a pristine environment. The time series is designed to examine the long-term processes leading to variation in extinction risk between closely related species, comparing differences in demographic and selective responses to common environmental changes.

The position is part of a project funded by the French National Research Agency (ANR), that links competences of two research centres in France.

In Toulouse, the UMR AMIS is among the leading laboratories worldwide in ancient DNA studies, and will be the postdoc's base for the historical DNA guidance and wet-lab work.

In Paris, the French National Museum of Natural History (MNHN) houses important specimens for the study, and is also home to expertise in genome-wide demographic analyses and method development, as well as in links between extinction risk, evolutionary history, and the study set up.

The ANR project comes with funding for three years of postdoc salary, and some flexibility is possible in the recruit's time allocation between Toulouse and Paris over this period.

Please see below for further details and to apply

Postdoctoral position in historical DNA, extinction risk, and a genetic time series

ANR project Suscept-Ext: Understanding susceptibility to extinction using historical museum specimens as a genetic time series

French National Museum of Natural History (ISYEB, MNHN), Paris University of Toulouse (AMIS - CNRS) Scientific Coordinator, Paris: Ben Warren Toulouse

participants: Ludovic Orlando, Catherine ThÃves, LounÃs Chikhi, Eric CrubÃzy Paris participants: Stefano Mona, Guillaume Achaz UK collaborator: Julian Hume

Evolutionary history is expected to play a major role in determining which species decline in population size to extinction in response to environmental change, but the processes by which this comes about are poorly understood. Although population genetic studies provide much promise to understand the microevolutionary processes behind macroevolutionary patterns of extinction risk, inferences can be limited by our confidence in the timescales inferred, and by the scale of such studies, which frequently include only one lineage. As a key-player in project ANR Suscept-Ext, the postdoc will tackle both of these issues, applying ancient DNA methods to museum (historical & subfossil) samples to obtain a genome-wide time series for multiple Mascarene island bird lineages that differ in abundance and other biological traits. Islands in the Mascarene archipelago (Mauritius & RÃunion), Indian Ocean, are unusual among sizable and biologically diverse landmasses worldwide, in that they had no human population until European arrival 400 years ago. Therefore, there exist museum samples and subfossils spanning the full duration of anthropogenic environmental change, allowing a real-time assessment of genetic response to environmental changes of known timing and across multiple species following first human presence.

Major goals for the postdoc include: 1) as a top priority, developing a working protocol and obtaining reliable genome-wide data from a variety of bird historical DNA samples, including museum skins (toe-pads), and subfossils up to 12,000 YBP from a variety of preservational environments including limestone and volcanic rock caves (essential), as well as attempting those of anoxic marshes;

2) playing a key role in DNA extraction and interaction with external genomics companies in order to obtain both de novo reference genomes and re-sequenced genomes from fresh samples;

3) analysing the resulting genetic time series (modern and historical genome-wide data of varying completeness) to track temporal changes in demography and selection since first human arrival in the Mascarenes ~ 400 generations ago.

Funding has also been obtained for a PhD student to work alongside the postdoc in data analysis, the ancient DNA lab and/or method development, beginning by Year 2 at the latest.

Candidates are expected to have proven experience in

generating and analysing genome-wide ancient or historical DNA data, and should ideally:

- have a strong interest in the broad theme of the study
- understanding the role of evolutionary history in determining which species decline towards extinction in response to environmental change
- be interested in relevant population genomic methods
- show willingness, if needed, to play a key role in training a PhD student to help with the historical DNA wetlab work

The ANR project comes with funding for three years of postdoc salary, and

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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>

MNHN-CNRS France ExtinctionHistoricalDNA

Postdoctoral position in historical DNA, extinction risk, and a genetic time series

A postdoc position is available to work on historical DNA from bird sub-fossils, museum skin specimens and fresh samples to develop a novel real-time assessment of genetic response to anthropogenic environmental change across multiple bird species following first human arrival in a pristine environment. The time series is designed to examine the long-term processes leading to variation in extinction risk between closely related species, comparing differences in demographic and selective responses to common environmental changes.

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The ANR project comes with funding for three years of postdoc salary, and some flexibility is possible in the recruit's time allocation between Toulouse and Paris over this period.

Further details and to apply: <https://docs.google.com/viewer?a=3Dv&pid=3Dsites&srcid=3DZGVmYXVsdGRvbWFpbmVzZWZlbnQ2YWNHU1cxOTAwYQ>

For enquiries, please contact Ben Warren: bwarren@mnhn.fr

bwarren@mnhn.fr

Montpellier AfricanForestEvolution

in central Africa. To: The AMAP lab < <http://amap.cirad.fr/en/index.php> > (Montpellier, France) spatio-temporal dynamics of Marantaceae forests, a presumably stable state of degraded forests in central Africa.

The will be based at the main AMAP headquarter in Montpellier, France, but will work in close collaboration with the Forest and Society < <https://ur-forestsocietes.cirad.fr/en> > lab, also in Montpellier. She/He will have the opportunity to conduct fieldwork in the north of the Republic of Congo.

The contract will start on 01/12/2020, with a duration of 12 months. The salary depends on the experience of the postdoctoral researcher (gross monthly salary of 2150 'Å for juniors (<2 years after PhD) and 2500 'Å for seniors (2-5 years after PhD)). Candidates with experience > 5 years after PhD cannot apply.

Context

The spatio-temporal dynamics of forest degradation is poorly known in the tropics, despite its importance for understanding global biogeochemical cycles or for the implementation of carbon mitigation strategies. Forest degradation in the tropics has so far been mostly studied from an ecological succession perspective, where successional processes drive the system into a supposedly stable and "mature" state. However, disturbances may also produce deep and lasting modifications of the forest dynamics, pushing the system to bifurcate to an alternative stable state or to an arrested succession.

Our project focuses on a system that probably corresponds to such a stable degraded forest state in central Africa, the Marantaceae forests. These forests exhibit a very low tree density, almost no tree regeneration, a

very low floristic diversity and an impenetrable dense understory composed of giant herbs (> 2 m) mostly belonging to the Marantaceae (arrowroot) and Zingiberaceae (ginger) families. They currently cover very large areas in central Africa where they have been little explored, though representing a critical issue for forest managers. Some previous unpublished works suggest that these forests are extremely stable in time, some likely resulting from anthropogenic disturbances dated from more than 1000 years BP. Besides human disturbances, some Marantaceae forests established following extreme dry events. Thus, under the on-going conjunction of climate change and increasing anthropogenic disturbances, Marantaceae forests are expected to expand at the expense of dense mature forests with important consequences for forest biodiversity, carbon sequestration and other ecosystem services.

Job description

The main objective of this postdoctoral project is to study the spatio-temporal dynamics of the central African Marantaceae forests in order to assess their long-term stability and dynamics. Our overall approach consists in combining local field experiments, remote sensing analyses and historical ecology approaches. The post-doctoral fellow is intended to conduct an original study from already available data including i) field inventories; ii) old (1950s) aerial photographs; iii) very high resolution satellite images and; iv) multiple UAV acquisitions with passive images and LiDAR measurements. The main idea is to use time series of remote sensing data and multiple field censuses to test whether Marantaceae forests naturally increase in undisturbed (protected areas) and in disturbed (logged) forests and to assess whether they constitute stable systems (i.e. whether shifts from Marantaceae forests to closed-canopy forests can be observed or not).

The expected results will both bring new insights on the conditions of stability of coexisting forest states, which so far have remained elusive, and have strong implications for forest management and conservation in central Africa.

The team

Our group is composed of c. 10 permanent researchers and PhD students working in tropical

forest ecology and having extended field experience in Central African forests

(see <http://amap.cirad.fr/en/th11.php> and <http://amap.cirad.fr/en/th9.php>). The team also have a strong experience in remote sensing of forest structure, including passive and active sensors. We have our own integrated UAV systems with multispectral cameras and

a LiDAR sensor (see e.g. <https://www.youtube.com/watch?v=3DRxGAXC4cefQ>).

Qualifications

We are seeking a post-doctoral researcher (PhD required) in ecology, with a background in remote sensing, or a researcher in remote sensing, with a background on forest systems. The postdoc should have strong data analysis skills (particularly in spatial analyses), must be fluent in an

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

Montpellier EvolutionMosquitoTransmission

Postdoctoral Opportunity to work on molecular mechanisms of dengue virus transmission.

We are currently recruiting a post-doc to work with Dr. Julien Pompon in the MIVEGEC unit at IRD, Montpellier, France (<https://www.mivegec.ird.fr/en/207-english/equipes-en-gb-8/see/1218-tve-uk?Itemid=523&> ; <https://scholar.google.com/citations?user=wRQf0q8AAAAJ&hl=en>). The group studies the molecular mechanisms of arbovirus transmission by mosquitoes to unravel novel intervention strategies. The group is located in a dynamic and well-equipped environment, with access to BSL2 and BSL3 wet laboratories and BSL2 and BSL3 insectaries and multiple omics platforms.

Julien was recently awarded an ANR grant (VirSalivaEnhancer) to study transmission enhancers in mosquito saliva. At the interphase between human, mosquito and virus, the saliva and its components determines infection onset in the skin during biting, and thus transmission. We recently discovered a new saliva enhancer that we want to characterize.

In this stimulating environment, the post doc fellow will characterize the new saliva enhancer by using molecular entomology, cell biology, a range of omics (RNAseq, proteomics, metabolomics), single-cell RNA sequencing, animal model and entomology. This multidisciplinary project will reveal a new player in mosquito transmission and determine its mechanism of action. Eventually, the

project should end up identifying a vaccine candidate active against multiple arboviruses.

The ideal candidate will have experience in molecular biology and cell biology and an excellent track-record of publications. The candidate should have a high level of intellectual engagement and excellent problem-solving skills. The ability to work independently and generate hypotheses is essential.

Montpellier is a sunny and culturally lively environment located between the Mediterranean Sea and the Cevennes mountains. The local research community is very active in medical biology. We propose a two-year contract and expect the candidate to seek its own fellowship. Salary is attractive and will depend upon experience. Only selected candidates will be invited for interview.

Please send a CV and cover letter to: julien.pompon@ird.fr

Julien Pompon, PhD MIVEGEC unit Institute for Research and Development (IRD) 911, avenue Agropolis 34394 Montpellier, France www.mivegec.ird.fr Julien Pompon <julien.pompon@ird.fr>

NorwegianUSciTech AvianEvolution

The international working group SQuID (Statistical Quantification of Individual Differences; <https://github.com/hallegue/squid>) and the Center of Biodiversity Dynamics (CBD; <https://www.ntnu.edu/cbd/>) at the Norwegian University of Science and Technology (NTNU) is seeking to hire a POSTDOCTORAL SCHOLAR to join us in augmenting three SQuID activities: 1. Developing new biological understanding by blending the statistics of linear mixed models with simulations of biological processes affecting real data, 2. Refining in-person workshops focused on teaching applications of linear mixed models, and 3. Expanding remote or on-line educational materials. We seek an interactive individual with a PhD in a relevant area and other relevant skills. The successful candidate should have a strong interest in life science and be familiar with topical issues in ecology and evolution, a good knowledge of statistics and computer tools employed by statisticians (e.g., R, C++), and a record of contributing to novel educational approaches to quantitative topics, especially via remote or on-line platforms. The successful candidate would likely start in early 2021 and would

participate fully in several planned SQuID activities, including 6 workshops (currently planned to be held at 6 institutions worldwide) combining teaching and research, and one or more working groups focused on both research and educational initiatives. To apply for the job see: <https://www.jobbnorge.no/en/available-jobs/-job/193783/senior-researcher-in-squid>. Please refer to the application number NV-97/20 when applying. For further information about the position you may contact Jonathan Wright (jonathan.wright@ntnu.no), David Westneat (david.westneat@uky.edu), or Niels Dingemane (dingemane@biologie.uni-muenchen.de)... or any squid you happen to encounter.

– Jeremy Van Cleve

Assistant Professor Department of Biology University of Kentucky E-mail: jvanclave@uky.edu Webpage: <http://vanclave.theoretical.bio> Phone: (859) 218-3020

“jvanclave@uky.edu” <jvanclave@uky.edu>

ORISE Madison Plant Population Genomics

Postdoctoral opportunity: Plant population genomics Oak Ridge Institute for Science and Education (ORISE) Location: Madison, Wisconsin Laboratory of Dr. Johanne Brunet <https://www.ars.usda.gov/midwest-area/madison-wi/vegetable-crops-research/people/-johanne-brunet/> Details of this opportunity can be found at: <https://www.zintellect.com/Opportunity/Details/USDA-ARS-2020-0190> The position is open to both US and non-US citizens. Please contact me directly for questions about the position but fill out your application directly on Zintellect using the link provided above. Deadline for applications is November 6, 2020. Position could start as early as December 2020.

Johanne

Dr. Johanne Brunet <https://twitter.com/labbrunet>
twitter @LabBrunet

<https://www.ars.usda.gov/midwest-area/-madison-wi/vegetable-crops-research/people/-johanne-brunet/> https://www.researchgate.net/profile/Johanne_Brunet/contributions <https://www.scientia.global/dr-johanne-brunet-buzzing-blooming-bee-flower-interactions-in-crop-production/> <https://www.scientia.global/pollinator-decline-implications-for-food-security-environment/> Johanne

Brunet <jbrunet@wisc.edu>

OxfordU HostVirusGenomics

We are seeking to hire a post-doc to investigate paired host-virus genomics.

Project description: The aim of the project is to use paired host-virus genomic to understand why patients respond differently to infections. We are sequencing host and virus genomes from large patient cohorts infected with HCV, HBV and HIV. These cohorts are very well characterised and many clinical phenotypes and biomarkers are measured on all individual. The aims of this study are (1) to identify host polymorphisms that drive evolution of the virus, (2) identify host and virus genetic polymorphisms that drive differences in clinical phenotypes and measured biomarkers independent of each other and (3) detect interactions between host and virus genetics that drive the differences in clinical phenotypes and measured biomarkers.

Requirements: A PhD with a strong quantitative component, particularly population genetics, bioinformatics, computational biology, statistics or probabilistic machine learning, computer science or other relevant fields. Experience in analyses of large genome-wide genotyping or next-generation sequencing data is necessary. Computational skills to include experience of using statistical packages such as R, MATLAB or others. Candidates must be able to express themselves in spoken as well as written English.

Desirable selection criteria: Shell scripting experience, bioinformatics pipeline development, low-level programming experience (for example C or C++), good understanding of Bayesian statistics, An understanding of the genetics of infectious disease, in particular viral genomics, understanding of concepts in genetics, in particular population genetics, proven experience in careful analysis of complex genetic data, in particular genome-wide association studies.

Instructions for the application: The application has to be made through the University of Oxford portal. The link is provided below:

Application deadline: 19 Nov 2020, if position is not filled we will re-post the position.

Type of employment: Initially for 2 years, but potential for extension for another 2 years.

Link for the advert: https://my.corehr.com/pls/uoxrecruit/-erq_jobspec_version_4.display_form?p_company=10&p_internal_external=E&p_display_in_irish=N&p_process_type=&p_applicant_no=&p_form_profile_detail=&p_display_apply_ind=Y&p_refresh_search=Y&p_recruitment_id=147879 For further information about the position please contact: Dr. Azim Ansari, ansari.azim@ndm.ox.ac.uk
[azim.ansari <ansari.azim@gmail.com>](mailto:azim.ansari@gmail.com)

PurdueU WildlifeGenetics

A competitive postdoctoral assistantship is now available in Prof. Andrew DeWoody's lab at Purdue University.— The position is available initially for one year but may be extended another year depending on progress, fit, and availability of funds. —Applications will be considered on a rolling basis beginning on 1 Nov 2020 and continue until the position is filled. The position is available effective immediately, but there is some flexibility in start date. Personnel in the lab use evolutionary genomic approaches to advance the conservation of many vertebrate species; the successful applicant will work on part of Indiana's Integrated Deer Management Project including deer diet analyses via DNA barcoding, on coyote monitoring via DNA in scat samples, and/or on synthetic meta-analyses of population genomic datasets. The deer and coyote data will be used to better understand predator/prey dynamics in Indiana and the successful applicant will have the opportunity to collaborate on the demographic modeling effort led by Dr. Rob Swihart. See URLs below for more info.

Purdue University in general and our lab in particular does not discriminate with regard to race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability or status as a veteran.—We encourage applications from all interested parties; Purdue University is an Affirmative Action institution.—To apply, send an updated CV, available start date, and contact information for three references to Andrew via email (<mailto:dewoody@purdue.edu>).

<https://web.ics.purdue.edu/~dewoody/DeWoody/-wordpress/>

https://web.ics.purdue.edu/~dewoody/DeWoody/-wordpress/?page_id3

<https://www.facebook.com/DeWoodyLab> <https://->

ag.purdue.edu/fnr/researchindeer/
dewoody@purdue.edu

SGN Frankfurt MammalianSpeciation

Job Announcement ref. #12-20022

The Senckenberg Gesellschaft für Naturforschung (SGN) is a member of the Leibniz Association and is based in Frankfurt am Main, Germany. LOEWE Centre for Translational Biodiversity Genomics (LOEWE-TBG), <https://tbg.senckenberg.de>, is a joint venture of the Senckenberg Gesellschaft für Naturforschung (SGN), Goethe-University Frankfurt, Justus-Liebig-University Giessen and Fraunhofer Institute for Molecular Biology and Applied Ecology IME aiming to intensify biodiversity genomics in basic and applied research. We will establish a new and taxonomically broad genome collection to study genomic and functional diversity across the tree of life and make genomic resources accessible for societal-demand driven applied research.

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

Postdoc (m/f/d) - Mammalian Genomics: Speciation and Gene Flow

(full time)

Your tasks

§Sequencing, assembly, and annotation of mammalian genomes

§Evolution, gene flow, and population genomic analyses of large multispecies data sets

§Involve classic taxonomy, biogeography and related fields with comparative genomics

§Acquiring third-party funding

Your profile

§PhD in Biology, Genetics, Bioinformatics or related subjects

§Experience with de novo genome assembly and mapping of vertebrate genomes

§Exceptional interest in mammalian evolution

§Experience and solid understanding of comparative genomics or evolutionary biology research

§Teamwork oriented and excellent communication skills with proficiency in written and oral English

What is awaiting you?

§An interesting task in a dynamic team of researchers in an international research group and joining the new LOEWE excellence centre with its 20 new research groups

§The possibility to create a network with scientists in interdisciplinary fields in translational biodiversity genomics

§Flexible working hours - dual career service - leave of absence due to family reasons - parent-child-office - annual special payment - company pension scheme - Senckenberg badge for free entry in museums in Frankfurt - leave of 30 days/year

Place of employment: Frankfurt am Main

Working hours: Full time (40 hours/week)

Type of contract: initially limited until 31. December 2021

Salary: according to the German collective agreement TV-H (pay grade E 13)

Salary and benefits are according to a full time public service position in Germany (TV-H E13). The contract should start on as soon as possible and will initially be limited to the end of phase one of LOEWE-TBG in December 2021. Subject to further funding and extension of the project, an extension of the employment is envisaged.

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

How to apply

Please send your application, mentioning the reference of this job offer (ref. #12-20022) until November, 9th, 2020 by e-mail (attachment in a single pdf document) and include a cover letter detailing your research interests and experience, a detailed CV, a list of publications and copies of your certificates, transcripts and grades to:

Senckenberg Gesellschaft für Naturforschung

Senckenberganlage 25

60325 Frankfurt a.M.

E-Mail: recruiting@senckenberg.de

For scientific information please contact Prof. Axel

Janke (axel.janke@senckenberg.de), see also “Comparative Genomics” at <https://tbg.senckenberg.de> . – Mit freundlichen Grüßen / Best Regards

Jessica Helm Personalsachbearbeiterin

SENCKENBERG Gesellschaft für Naturforschung (Rechtsfähiger Verein gemäß § 22 BGB) Senckenberganlage 25

60325 Frankfurt am Main

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

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

Leiterin Personal & Soziales - 1458 Loke, Uta

Stellv. Leiterin Personal & Soziales - 1319 Elsen, Carina

Team Personalbeschaffung (Recruiting) - 1564 di-Biase, Maria - 1313 Helm, Jessica - 1478 Gajcevic, Isabel

Fax: 0049 (0)69 / 7542-1445

Mail: recruiting@senckenberg.de

Direktorium: Prof. Dr. Dr. h.c. Volker Mosbrugger, Prof. Dr. Andreas Mulch, Stephanie Schwedhelm, Prof. Dr. Katrin Böhning-Gaese, Prof. Dr. Karsten Wesche

Präsidentin: Dr. h. c. Beate Heraeus Aufsichtsbehörde: Magistrat der Stadt Frankfurt am Main (Ordnungsamt)

[recruiting <recruiting@senckenberg.de>](mailto:recruiting@senckenberg.de)

St Andrews FruitFly Evolution

Re-advertisement; Deadline next week.

3 year postdoc, St Andrews, Scotland

A postdoctoral research fellowship position is available to work with Mike Ritchie at the University of St Andrews on evolutionary genetics and sexual selection in fruit flies. The researcher will use gene editing techniques, population genomics analyses, and behavioural experiments to examine the role of sexual selection in driving genomic divergence in *Drosophila pseudoobscura*. Mutants will be created in candidate genes using CRISPR techniques and the behavioural, reproductive and sex-specific fitness effects of these mutations will be assessed. The project is funded by the NERC, UK, and the work is in collaboration with Rhonda Snook at the University of Stockholm, Sweden.

The position is available for 3 years, hopefully starting before the end of 2020. The work will take place in

the Centre for Biological Diversity at the University of St Andrews, Scotland. The University of St Andrews regularly ranks in the top-10 UK and top-100 worldwide universities. It has one of the highest proportions of international staff, students and research collaborations in the higher education sector worldwide, ensuring a vibrant and sustainable research culture. The School of Biology is committed to the pursuit and delivery of research at the highest international level. Research is organised into three major interdisciplinary centres: the Scottish Oceans Institute (SOI), Biomedical Sciences Research Complex (BSRC) and Centre for Biological Diversity (CBD). This project will be hosted within MGR's laboratory in the CBD, where MGR oversees a Molecular Ecology laboratory used by 7 PIs. He also maintains a *Drosophila* facility used by 5 PIs, with the help of two University technicians. Fly equipment includes a media preparation and cleaning service, behavioural observation rooms, a microinjection facility and fluorescent microscopes.

Applications are particularly welcome from women, people from the Black, Asian, Minority or Ethnic (BAME) community and other protected characteristics who are under-represented in Research Fellow posts at the University. The University is committed to equality for all, demonstrated through our working on diversity awards (ECU Athena SWAN/Race Charters; Carer Positive; LGBT Charter; and Stonewall). More details can be found at <http://www.st-andrews.ac.uk/hr/edi/diversityawards/>. Informal enquiries can be sent to Mike at mgr@st-andrews.ac.uk. Formal details are available at <https://www.vacancies.st-andrews.ac.uk/Vacancies/-W/3605/0/277724/889/research-fellow-ar1829dd>

Please note that applications must be made through the official channels at that link, by 6th November. Mike Ritchie: <https://orcid.org/0000-0001-7913-8675>
Mike Ritchie Centre for Biological Diversity, School of Biology,

University of St Andrews, Fife. Scotland KY16 9TH
UK I do not expect people to answer e-mails outside of office hours

Michael Ritchie <mgr@st-andrews.ac.uk>

SussexU EvolTransposableElements

Applications are invited for the post of Research Assistant in Molecular Biology/Genetics based in the School of Life Sciences at the University of Sussex; one of the

UK's most prestigious universities.

Undertaking research in a vibrant, inter-disciplinary research environment with an excellent international reputation, you will work as a key member of a research team investigating the function and evolution of plant genomes with a particular emphasis on transposable elements (TEs).

TEs represent the majority of eukaryotic DNA, for example they occupy ~50% of the human genome and up to 80-90% of the genomes of some plants. Our lab is interested in understanding the interactions between TEs and their host genomes by focusing both on mechanistic and evolutionary perspectives.

We are seeking for a skilled molecular biologist to work on a project trying to elucidate how the 3D organisation of chromosomes within the nucleus affects the integration of new TE copies in the genome.

When TEs are active, new copies are generated that integrate in various chromosomal locations. Integration of new TE copies in the genome is a process that is modulated on several molecular levels. One such level, the folding and positioning of chromosomes inside the nucleus, has only recently been recognised as a potentially important parameter, but so far has only rarely been integrated in experimental studies or accounted for in modelling. By using *Arabidopsis thaliana* lines with active TEs and by testing various tissues, you will i) identify TE families that are actively transposing, ii) identify the chromosomal integration loci of the new TE copies, and iii) produce and analyze whole-genome methylation data. The ultimate aim of the project is to combine analyses of TE, epigenetic, chromosome conformation capture (Hi-C) and modelling data to characterize the epigenetic and 3D structure of the host cells where the new TE copies have inserted.

This is an excellent opportunity for a molecular biologist wishing to apply their skills to an innovative area of science. The position is supported by a grant of the Royal Society and is associated with generous research funds. Funding may be available after the completion of the Royal Society support. The candidate will collaborate with colleagues in UK (Dr. Hans-Wilhelm Nuetzmann, Dr. Davide Michieletto) and US (Prof. Keith Slotkin).

Please contact Dr. Alexandros Bousios alex.bousios@sussex.ac.uk for informal enquiries. To learn more about the lab visit <http://www.sussex.ac.uk/-lifesci/bousioslab/>, and to apply visit <https://www.sussex.ac.uk/about/jobs/research-assistant-in-molecular-bology-ref-4842>.

Alexandros Bousios, PhD Royal Society University Research Fellow

University of Sussex | UK

alexandros.bousios@gmail.com | email <http://www.sussex.ac.uk/lifesci/bousioslab/> | www <http://infspire.org/> | www alexandros bousios | Skype

alexandros.bousios@gmail.com

UBern Switzerland PlantGenomeEvolution

Postdoc Positions in Plant Evolutionary Genomics

Two postdoctoral fellowships in evolutionary genomics are available in the research group of Christian Parisod at the University of Bern. We investigate interactions between transposable elements and duplicated genes following whole-genome duplication (WGD).

Tasks: Successful applicants will generate chromosome-scale sequence assemblies of multiple genomes across diploid *Biscutella* species (Brassicaceae) differing in genome size and chromosomal structure following an ancient WGD event. We also focus on variation within the *Biscutella laevigata* species that recently colonized the Alps following an additional WGD event (autopolyploidy). Comparative genomics, combined with population genomics and expression data sets will address the process of genome restructuring and evolutionary diversification during post-polyploid diploidization. The two postdocs will collaborate on either within vs among species analyses or according to their specific interests. Part of the work is a collaborative project with the Lysak group (CEITEC, Brno; <http://www.plantcytogenomics.org>). Further synergies are expected with other group members addressing complementary questions, using natural and experimental populations of *B. laevigata*.

Requirements: We are looking for candidates who have obtained a PhD degree within the last five years and show excellent background in comparative genomics and bioinformatics. Experience with either chromosome-scale genome assembly and annotation, analysis of transposable elements or duplicated genes and willingness to develop complementary expertise is welcomed. Successful applicants will be highly motivated to address evolutionary genomic questions and able to work independently yet open to frequent interactions with other members of our Swiss-Czech multi-disciplinary team.

We offer: Positions are available form 01. 01. 2021 (or upon agreement) and come with a highly competi-

tive salary for up to three years on annually renewable contracts. We offer a stimulating and supportive environment fostering collaborations with international research teams. The working language in our Institute of Plant Sciences is English. The group, nested within the Department of Biology, is located in the Botanical Garden of the central city of Bern and is therefore close to other major research centers in Switzerland and beyond.

Application: To ensure full consideration, applications must be sent to christian.parisod@ips.unibe.ch as a single (!) PDF file including a cover letter describing research interests and achievements, a CV including publication list and details of three academic references. For additional information, contact Christian Parisod directly. Applications will be considered until 30.11.2020 or until the position has been filled.

Prof. Christian Parisod Institute of Plant Sciences - University of Bern Altenbergrain 21 - 3013 Bern - Switzerland Phone : +41 (0)31 631 4949 e-mail : christian.parisod@ips.unibe.ch <http://www.ips.unibe.ch/research/ecogen> christian.parisod@ips.unibe.ch

UCalifornia Davis FishEvolution

Postdoctoral Scholar: The Fish Lab Conservation and Culture Laboratory Department of Biological and Agricultural Engineering, University of California, Davis.

The Fish Conservation and Culture Laboratory (FCCL, <https://fccl.ucdavis.edu/>) is seeking a postdoctoral scholar to work on sperm preservation and competition and hybridization of an endangered fish species, Delta Smelt *Hypomesus transpacificus*. The FCCL is a part of Dept. Biological and Agricultural Engineering at University of California, Davis, but the location of the FCCL is off campus in Byron, CA. This appointment will be at 100% time for duration of one year with the possibility of extension for another year. Full-time salary and benefits are included and are consistent with UC Davis policy and commensurate with applicant experience.

POSITION DESCRIPTION: The successful candidate will be involved in studies mainly focused on, but not limited to, 1) developing sperm (cryo)preservation methods and 2) studying hybridization among smelt species. General responsibilities will also include: laboratory support, animal trial support, animal care, sample analysis, data management. The candidate should also be actively

and significantly involved in reviewing journal articles, engaging in discussions on research and the interpretation of research results, participating in appropriate professional societies or groups and other educational and research organizations, presenting research data in society annual conferences, and publishing manuscripts. The ideal candidate will have strong interpersonal, communication, and decision-making skills, as well as the ability to work well both independently and as part of a team.

BASIC QUALIFICATIONS: - PhD degree in Animal Science, Aquacultural Engineering, or a related field, with a minimum of 4 years' experience in a laboratory. - Strong lab techniques for sperm activity monitoring. - Experience in aquacultural systems, fisheries sciences, ecology, or related field. - Experience in developing fish culture methods for all life stages. - Solid knowledge and experience of statistical data analysis. - Demonstrated publication record. - Good oral and written skills to communicate data summary to collaboration parties. - Provide own, reliable, transportation to and from work site with a CA driver's license.

PREFERRED QUALIFICATIONS: Experience in sperm preservation of fish. Experience in fish sperm competition studies.

PHYSICAL DEMANDS: Work under indoor and outdoor conditions over rough terrain. Physical strength and endurance to move throughout working aquaculture facility. May encounter spiders, snakes, wasps, and other animals occurring in field conditions.

JOB EXPECTATIONS: Promptly respond to the requests made by the supervisor. Give timely feedback, including bad outcomes. Write semi-annual reports. Prepare posters and present results in conferences. Travel to and from client sites on and off campus and the FCCL site at Byron, CA 94514. Work within regularly scheduled hours (8am - 5pm) and occasional evenings, weekends, or holidays to meet project priorities, with the option to work flexible or extended hours as needed based on workload demands. The postdoctoral scholar is personally responsible for following health and safety guidelines/instructions.

APPLICATIONS: Application materials should be submitted to Dr. Tien-Chieh Hung at thung@ucdavis.edu. The position will remain open until filled. To ensure consideration, application materials should be received by October 20, 2020. Start date ASAP.

MATERIALS REQUESTED TO INCLUDE: To apply, please send the following application materials: 1) Cover letter 2) Curriculum vitae

QUESTIONS: Please direct questions to Dr. Tien-Chieh

Hung (thung@ucdavis.edu).

"areads@ucdavis.edu" <areads@ucdavis.edu>

UCalifornia Davis Population Genomics

Description:

The Vector Genetics Lab (VGL) at the University of California, Davis has a post-doctoral position available for a highly motivated candidate with a background in population genetics/genomics. The VGL is dedicated to research and training in the areas of population & molecular genetics, genomics and bioinformatics of insect vectors of human and animal disease. We have developed a program aimed at expanding knowledge that may be applied to improving control of disease vectors and that also addresses problems of interest in the field of evolutionary genetics. See details at: <https://vectorgeneticslab.ucdavis.edu/> Ongoing projects include work on the following systems:

- Populations of *Anopheles malaria* mosquitoes on islands off the coast of Africa
- Invasive *Aedes aegypti* populations in California

Ongoing research topics include:

- Interspecific hybridization and introgression as a mechanism for adaptation
- The evolution of populations on isolated islands
- Development of new whole genome-based methods to estimate population size and dispersal
- Evaluating the behavior of Cas9-based gene drive systems via field trials

Responsibilities:

The successful candidate will work on whole-genome sequencing data sets to decipher recent population history and evolution in mosquitoes that are vectors of human diseases.

Required Qualifications:

- PhD in Population Genetics/Genomics, Bioinformatics, or related discipline (theoretical and/or applied)
- In-depth knowledge of population genetics theory
- Demonstrated record of research productivity and publications

Preferred Qualifications:

- Experience working in Linux environment
- Experience with genomic data analysis
- Experience with coalescence/IBD methods
- Programming experience (e.g. C/C++, Python/Perl, R)
- Strong mathematical/statistical skills

Salary:

This is a full-time position. Salary is commensurate with qualifications and experience.

How to apply:

Applicants should submit the following materials:

- A cover letter
- A curriculum vitae
- List of relevant publications
- Contact information for 3 referees

Send the above combined into a single PDF to Gregory Lanzaro at vectorgeneticslab@gmail.com

Review of applications will start immediately. This position will be open until filled. The appointment is for a duration of two years.

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status. For the complete University of California nondiscrimination and affirmative action policy see: <http://policy.ucop.edu/doc/4000376/NondiscrimAffirmAct>. Christine Coleman (Handy) Administrative Assistant|Vector Genetics Laboratory UC Davis, School of Veterinary Medicine: PMI <https://vectorgeneticslab.ucdavis.edu/> Phone: +1-530-752-7333 Fax: +1-530-754-0299 LinkedIn

Christine H Coleman <cmhandy@ucdavis.edu>

UCaliforniaLosAngeles Conservation

The UCLA La Kretz Center for California Conservation Science < <https://www.ioes.ucla.edu/lakretz/> > invites applications for its 2021 Postdoctoral Fellowship in California Conservation Science. We seek a postdoctoral scholar who conducts innovative biological research to work with the La Kretz Center and partner agencies to

achieve outcomes that will direct and lead California conservation efforts. Candidates may work in any discipline that provides the scientific underpinnings for the preservation, protection, management, or restoration of at-risk species, environments, or ecological communities in California. Our current research directions include, but are not limited to:

- conservation science at the urban/wildland interface, particularly invasions at the urban/wildland interface, behavioral attributes of introduced species, and the ecological and evolutionary effects of urbanization;
- urban biodiversity, ecosystems, and ecosystem services with an emphasis on comparative assessments of urban biodiversity (phylogenetic, richness, genetic diversity, etc.), evaluations of ecosystem services in the urban environment, and ecosystem ecology;
- California conservation science that leverages networks of protected areas to answer questions about speciation, adaptive evolution, and species delimitation or uses these lands to understand the impact(s) of disturbance on species ecology, conservation, or behavior; or
- The California Conservation Genomics Project (CCGP) <<https://sites.lifesci.ucla.edu/eeb-CCGP/>>, a large, multi-campus initiative led by the La Kretz Center that is delivering genomic resources to California to enhance species and habitat management.

We seek Fellows whose research overlaps with a minimum of one UCLA faculty member who is a La Kretz affiliate < <https://www.ioes.ucla.edu/lakretz/people/?ioesrole=3Daffiliates> > and one agency partner in California (see below). Applicants should identify in their cover letter potential faculty and agency partners to collaborate with on their proposed project. The Fellow is expected to work closely with their UCLA faculty mentor and agency partner(s) as project timelines require. Our current list of possible agency partners includes, but is not limited to:

- The Nature Conservancy: Sophie Parker (restoration; urban conservation; invasive species) - LA Natural History Museum: Jann Vendetti (mollusk ecology and evolution; species natural history) - US Geological Survey: Robert Fisher (applied conservation; biodiversity; ecology and evolution) - US Bureau of Land Management: Mike Westphal (applied conservation, climate change) - US Fish and Wildlife Service: Cat Darst (endangered species management) - Natural Communities Coalition: James Sulentic (protection and recovery of sensitive species) - National Park Service: Katy Delaney (amphibian and avian ecology, evolution, and conservation) - National Park Service: Seth Riley (mammalian ecology, evolution, and conservation) - Department of Defense: Robert Lovich (conservation on Dept. of Defense lands)

The La Kretz Fellowship is for two years, subject to review after the first year. The target start date is September 2021, and is flexible. The position offers full benefits, and an annual research/travel allowance. Candidates who have recently completed their Ph.D. or will have completed it by August 2021 are encouraged to apply.

To apply, please send applications to lakretz@ioes.ucla.edu as a single PDF file that includes (i) a cover letter, (ii) your CV, (iii) a research and management accomplishments statement (maximum two pages), (iv) a project proposal that includes potential La Kretz affiliates and agency partners of interest (maximum three pages, including references), and (v) two of your relevant publications. We also ask that you have (vi) two letters of reference sent, one of which must be from your Ph.D. advisor. Please arrange to have reference letters emailed to the same address with the subject line La Kretz Postdoc letter for (your last name)“. The deadline for completed applications is December 20, 2021. Please e-mail questions to Brad Shaffer, Director of the La Kretz Center, at brad.shaffer@ucla.edu.

”garyb@g.ucla.edu“ <garyb@g.ucla.edu>

UConnecticut HostParasiteCoevolution

University of Connecticut: Postdoctoral researcher in the genetics of host-parasite coevolution

A postdoctoral research position is available in Dr. Daniel Bolnick’s research group (<https://bolnicklab.wordpress.com>), in the Department of Ecology and Evolution at the University of Connecticut. The postdoc will join an ongoing NIH-funded project to use CRISPR/cas9 gene editing of threespine stickleback to evaluate the phenotypic effect of candidate genes on host immune phenotypes and resistance to cestode infection. The postdoc may also begin work on a related question of how cestode genotype affects infection outcome.

Tasks: The postdoctoral researcher will combine experimental genetics with immune challenges to identify the genetic and immunological basis of rapidly-evolved population differences in stickleback immunity to a cestode parasite, and associated costly immunopathology. The Bolnick lab has identified naturally evolved heritable differences in stickleback fishes’ ability to resist infection, and suppress growth of es-

tablished cestodes. This resistance entails a recently-evolved fibrosis immune response that can be experimentally studied using an artificial vaccination strategy (see <https://bolnicklab.wordpress.com/2015/10/12/bolnick-lab-publications/> for recent publications concerning evolution of cestode resistance and fibrosis). Using QTL mapping, GWAS, population genomic divergence, and transcriptomics we have identified promising candidate genes potentially underlying these immunological differences. With funding from NIH, we have successfully implemented CRISPR/cas9 gene editing of some candidate genes. The postdoc hired for this position will extend this gene editing work to encompass more replicates, more candidate genes, and evaluate the phenotypic effect of these transgenic manipulations using experimental infections and artificial vaccination assays. The work will be based at the University of Connecticut, though some field work may be necessary, such as to breed fish for lab work or to obtain cestodes. The postdoc will be responsible for conducting lab and field work, co-supervising laboratory technicians and students, data analysis and publication. Opportunities exist to pursue side-projects along with the core project task.

Duration: The position is available for up to two years, subject to annual review of performance. The position could extend longer, contingent on availability of additional grant funds. The postdoc should be able to start in spring or summer of 2021, exact dates to be negotiated with the PI.

Compensation: Starting salary will be \$52,850, plus health benefits. Qualifications: Applicants must have a PhD in evolutionary biology, genetics, immunology, or a closely related field. Prior experience with molecular genetics or immunology is essential (preferably both). Expertise in CRISPR/cas9 gene editing is strongly preferred. Previous research experience and publications should demonstrate a commitment to basic research, good work ethic, lab skills, organizational ability, and publication productivity. Applications should electronically submit a single pdf file containing the following, in order, via the following website:

<https://jobs.hr.uconn.edu/cw/en-us/job/494822/-postdoctoral-research-associate>

1) A statement of past research achievements, including relevant skills (1-2 pages) 2) A statement of what you can contribute to the Bolnick Lab’s research (1 page) 3) CV 4) A copy of two publications or submitted manuscripts. 3) A list of three references, with contact information (email, telephone, and mailing address). We will request letters directly from these references, after identifying top candidates. An initial application should be emailed to Dr. Daniel Bolnick (daniel.bolnick@uconn.edu),

though applicants will eventually need to also submit materials via the University of Connecticut job site once the position is posted (URL to be determined, inquire from Dr. Bolnick). Include the subject line “Evolutionary immune genetics Postdoc: <YOUR NAME>”. Application review will begin on November 9, 2020, though late applications will be accepted until the position is filled. For questions about this position, please email Dr. Bolnick (daniel.bolnick@uconn.edu). For information about the Bolnick Lab visit the lab website (<https://bolnicklab.wordpress.com>), lab photostream (<https://www.flickr.com/photos/98765823@N08/albums>), and Dr. Bolnick’s Google Scholar page

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UEdinburgh QuantitativeGenetics

Open position for a postdoctoral research fellow at the Roslin Institute at the University of Edinburgh, on project on genomics and gene editing in pigs.

Please forward to those who might be interested!

<https://www.ed.ac.uk/roslin/work-study/-opportunities/vacancies/research-fellow> To analyse sequence data on a huge pig data set. Closing: 15 October

The Roslin Institute is a world-class centre for research on the quantitative genetics of populations, particularly in managed populations such as livestock, companion animals, forests and crops. We have a vacancy for a post-doctoral researcher in quantitative genetics/genome-editing, to work on a project, led by Prof. Richard Mellanby in collaboration with our industrial partners PIC (part of Genus plc). In the past three years the project has generated one of the largest and most powerful livestock genetics data sets globally with accurate whole genome sequence information and phenotypes on hundreds and thousands of individuals. Plans are in place to utilise/interrogate this data to develop an Allele Testing platform, a large scale genome-wide experimental and computational framework, for identification of causal variants in livestock.

This project has four aims: (1). Develop an “Allele Testing” framework using genomics analyses, grounded in quantitative genetics, population genetics and bioinformatics, to generate a ranked list of causal genomic variants from whole genome sequence data; (2). Use genome-editing to introduce putative causal genomic variants into an in vitro cell system for phenotypic interrogation; (3). Undertake such analyses in a very large dataset encapsulating phenotype and sequence data in pigs to make novel discoveries about animal genomics (4). Deploy this knowledge to develop novel strategies to apply genomic information in breeding.

Successful applicant will become part of a large team of computational biologists, animal and plant breeders, quantitative geneticists, computer scientists and biophysicists. You will actively contribute to biological discovery in huge livestock datasets, their validation by genome-editing in vitro, and be supported to create new breeding program designs and strategies to accelerate genetic improvement in livestock.

Given the diverse challenges of this post, the successful applicant may have (or be close to having) a PhD from a diverse set of areas. Applicants with a background in Animal Breeding, Quantitative Genetics, Bioinformatics with experience in Cell and Molecular biology, and Gene-Editing technologies are strongly encouraged to apply. Key is the ability to work within the group and to contribute to the project goals. The ideal candidate will have experience in research and development activities. The post-holder will join the Genetics and Genomics department at the Institute which comprises 18 group leaders, both desk based and lab based scientists. The department benefits from synergies arising from academic backgrounds including DNA-chemistry, statistics, mathematics and theoretical physics in addition to genetics.

This is a fixed term post until 31st December, 2022

Informal enquires can be made to Richard Mellanby (Richard.Mellanby@ed.ac.uk) or Melissa Jungnickel (melissa.jungnickel@roslin.ed.ac.uk), while formal applications should be submitted through The University of Edinburgh website.

sorill@gmail.com

UFreiburg PDF PhD DrosophilaMicrobiome

Graduate position: The Staubach lab is looking for a PhD student or postdoc to work on the genetic basis of microbiome variation in *Drosophila melanogaster*.— The project involves metagenome and population genetic/quantitative genetic analyses of natural *Drosophila* populations. The project was generously funded via the DFG sequencing call and will offer comprehensive data sets and ample opportunity to develop own research questions. High Performance Computing resources are available.

The candidate should enjoy data analysis. A background either in metagenomics AND/OR quantitative genetics/population genetics or related fields is a plus.

The position can either be filled with a PhD student or a postdoc. Salary for a PhD student will be according to 65% TV-L E13 (33-38k Euros per year) for 3 years. For a postdoc salary will be TV-L E13 100% (50-60k Euros per year) for 2 years.

Freiburg University has an excellent scientific and intellectual atmosphere and the city provides a very high quality of life with a beautiful city—center and surroundings ideal for skiing, hiking and biking (Black Forest, mountains, lakes).

To apply, please send a single pdf file containing a $\hat{A}^{\frac{1}{2}}$ - 1 page motivation letter, your CV (including potential publications and university grades), a max. 300 word abstract of a previous research project, and the names and email addresses of two potential referees.

Please check the lab homepage for our research interests <https://staubachlab.org/> and do not hesitate to contact me (fabian.staubach@biologie.uni-freiburg.de) in case you have any further questions.

Application deadline: October 27 2020

PD Dr. Fabian Staubach Biologie I Universitaet Freiburg Hauptstr. 1 79104 Freiburg +49-761-203-2911 staubachlab.org

Fabian Staubach <fabian.staubach@biologie.uni-freiburg.de>

UIowa StressResponseEvolution- CommensalYeasts

Postdoctoral Opportunity: Evolution of Stress Response in Diverse Yeasts, funded by NIH R35 Location: University of Iowa, Biology Department, Iowa City, Iowa Laboratory: The Gene Regulatory Evolution (GRE) Lab (<https://binhe-lab.org>) led by Dr. Bin He Details and application for the position can also be found at <https://jobs.uiowa.edu/postdoc/view/3397> We are hiring a postdoctoral researcher to work on the evolution of stress response in multiple clades of independently evolved commensal and opportunistic yeast pathogens in the same group as the model yeast *S. cerevisiae*. The postdoctoral training will involve working with a variety of model and non-model yeast species, conducting biochemical, functional genomics and single-cell measurements to understand the evolutionary changes and consequences in the stress response GRNs.

Qualified candidates should hold a Ph.D. in evolutionary biology, molecular genetics, microbiology or related fields. Basic skills in statistics and bioinformatics are expected. Experience in fungal genetics, animal models for fungal pathogens, conducting and analyzing large-scale sequencing results are highly desirable, but the candidate need not have expertise in all of those fields. Training with the PI and other local and national experts will be a critical part of this job. While initially the postdoc will work on projects laid out in the grant, she or he will have the latitude to develop her/his own idea in the latter part of the training.

The GRE lab is part of a diverse and active group of 28 research labs in the Biology Department at the University of Iowa, which provides a unique integrative environment. We work closely with multiple core facilities and experts in transcriptional regulation and fungal pathogenesis, thus allowing the postdoc candidate to quickly get into technically challenging fields. The Principal Investigator, Dr. Bin He, obtained his Ph.D. from the Department of Ecology and Evolution at the University of Chicago, and completed his postdoctoral training with Dr. Erin O'Shea at the FAS Center for Systems Biology at Harvard University in 2017. The lab is committed to fostering a welcoming, supportive environment. Last but not least, Iowa City is a great place to live in. It is consistently ranked among the top five college towns in the US. Home to one of seven

UNESCO cities of literature, it has a live culture, with great art and music, and a vibrant food scene, and is very affordable.

To apply, please use this website: <https://jobs.uiowa.edu/postdoc/view/3397> to send your up-to-date CV, 2-3 reference letters and a cover letter briefly explaining your interest in the research. Informal inquiries can be sent to bin-he@uiowa.edu. Review of applications will begin immediately and will continue until the position is filled. Start date is flexible and can be negotiated with the PI.

– Sincerely yours

Bin HE Assistant Professor Biology Department, the University of Iowa email: bin-he@uiowa.edu <binhe@fas.harvard.edu> website: <https://binhe-lab.org> “bin-he@uiowa.edu” <bin-he@uiowa.edu>

UKonstanz CichlidEvolution

3 Year Postdoctoral position in Cichlid Fish Evolution, Taxonomy, and Hybridization

University of Konstanz, Department of Biology, Konstanz, Germany

Start Date: January 1st, 2020

Description A post-doctoral scholar position (for up to three years) will be available after the 1st of January 2020 in the lab of Prof. Axel Meyer lab to work on a DFG (German Science Foundation) funded project related to species delimitation in sympatric and allopatric populations of cichlid fishes. The project will be based on integrating whole-genome resequencing data and phenotypic data to conduct species delimitations applying coalescent-based integrative taxonomic approaches in light of empirical field and lab based information on hybridization and introgression. We seek applicants with a background in some of the following areas: evolutionary biology, taxonomy, phylogenetics, and bioinformatics.

The Meyer Lab at the Department of Biology at the University of Konstanz in Germany, is interested in the origins of adaptations, speciation, and phylogenomics of fishes, in particular the cichlid fish adaptive radiations from Central America and Africa. A total of three research groups two of which are headed by Junior Group Leaders make up the evolutionary biology group (~20-25 members total in the lab).

Konstanz is a lovely historic town located on Lake Con-

stance on the southern border between Germany and Switzerland. The University of Konstanz and the Department of Biology are among them most highly ranked institutions in Germany and provide a lively and academically outstanding research environment. Appointments are initially for two years (funding is available for 3 years), comes with a competitive salary, and excellent health and retirement benefits.

Qualifications Required: PhD in Taxonomy, Ecology and Evolutionary Biology or Genetics/Genomics. Preferred: Experience working with genomic data, a strong conceptual background in evolutionary biology, and experience with fish husbandry.

Application Instructions To Apply Submit the following documents to a.meyer@uni-konstanz.de, or darrin.hulsey@uni-konstanz.de: - One page Cover Letter outlining your background, motivation, interests and skills - C.V. - Publication list - Contact information for 2-3 References. Applications will be considered until the position is filled. Informal inquiries about the position are encouraged: darrin.hulsey@uni-konstanz.de

The University of Konstanz is an equal opportunity employer and tries to increase the number of women in research and teaching. The University of Konstanz is committed to further the compatibility of work and family life and has excellent onsite child care facilities.

– C. Darrin Hulsey, Ph.D. Department of Biology Building M, Room M808 University of Konstanz 78457 Konstanz Germany

fon + 49 (0)7531 88 5470 fax + 49 (0)7531 88 3018

<http://darrinhulsey.com/> darrin.hulsey@uni-konstanz.de

ULodz VertebrateEvolution

POST-DOCTORAL FELLOW

The Department of Ecology & Vertebrate Zoology, University of Lodz, Poland invites applications for a 2-year post-doctoral fellowship position in any area of vertebrate ecology and evolution.

The Department of Ecology & Vertebrate Zoology has particular research strengths in aquatic ecology, avian ecology, animal behaviour and invasion biology.

The selected candidate will be expected to develop their own area of research and to cultivate collaborations within the Department. Candidates will be expected to

have excellent English verbal and written skills.

To apply, please submit: (1) a two-page cover letter outlining your future research plans, (2) CV, and (3) contact information for two professional references, to Carl Smith (carl.smith@biol.uni.lodz.pl).

The sole criterion for selection will be scientific excellence.

The position is available immediately and will remain open until filled.

Niniejsza wiadomość pocztowa oraz wszelkie załączony do niej pliki są poufne i podlegają prawnej ochronie. Jeśli nie jest Pani/ Pan jej zamierzonym adresatem, prosimy o niezwłoczny kontakt z nadawcą i usunięcie tej wiadomości wraz z załącznikami. Jeśli nie jest Pani/ Pan zamierzonym adresatem tej wiadomości jej dalsze rozpowszechnianie, udostępnianie lub ujawnianie jej treści w całości lub w części jest zabronione - zastrzeżenie to dotyczy zarówno samej wiadomości jak i załączników do niej.

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

UNebraska Lincoln PopulationBiology

Population Biology Postdoctoral Research Fellowship

THE UNIVERSITY OF NEBRASKA-LINCOLN is seeking applications for a 2-year postdoctoral position in the Population Biology Program of Excellence.

The goal of the Population Biology-POE Postdoctoral Fellowship is to stimulate synergistic interactions between faculty and postdoctoral scholars broadly interested in the area of Population Biology. We are seeking applicants who have recently completed, or will soon complete, their PhD and who conduct cutting edge research related to faculty research areas in the Ecology, Evolution & Behavior (EEB) section in the School of Biological Sciences (<https://biosci.unl.edu/research-areas>). POE postdoctoral fellows pursue a research program under the sponsorship of an EEB faculty member and are expected to enhance graduate education, serve as a model for graduate students in career development, and promote interactions among faculty at UNL. While in residence, the postdoctoral fellow is expected to lead a seminar, symposium or outreach project that will appeal to Population Biologists across campus.

Interested candidates should submit a CV, a 1-page description of previous or current research and a 2-3 page description of proposed research, and arrange for two recommendation letters from non-UNL faculty and one recommendation letter from the UNL faculty sponsor (a total of 3 letters) to be emailed to the address below. The research proposal should be developed in collaboration with the proposed faculty sponsor. The successful applicant must have completed their degree by the start date. Priority will be given to applicants who are new to UNL. Research descriptions for past and current POE postdoctoral fellows can be viewed at <http://biosci.unl.edu/population-biology/>. EEB faculty at UNL are highly integrative and collaborative, using a wide array of approaches and study systems to study a diverse set of biological questions, from the molecular determinants of adaptation and speciation to multimodal animal communication to the community ecology of extinct mammals to the ecology and evolution of infectious disease. Lincoln is consistently rated as one of the best places to live in America, with a low cost of living, over 130 miles of bike trails throughout the city, and a vibrant restaurant and music scene.

Application materials should be emailed to: Dr. Clay Cressler at: ccressler2@unl.edu. The subject line should read "Population Biology Post-doc application". Applications should be received by January 8, 2021. The expected salary will be \$45,000 per year. We anticipate notifying the successful applicant by January 31, 2021, with an expected starting date of September 1 or later in 2021. We strongly encourage applications from women and members of minority groups. The University of Nebraska is committed to a pluralistic campus community through affirmative action, equal opportunity, work-life balance, and dual careers. We assure responsible accommodation under the Americans with Disabilities Act.

cmeiklejohn@gmail.com

UOklahoma MicrobialPhysiology

Title of Position: Postdoctoral Fellow - Microbial Physiology
Earliest start date: Open, first interviews expected by November 16th
Salary: ~55K plus fringe.

Position requires a PhD in Life sciences (preferably Microbiology, Cell Biology, or Molecular Biology) or related fields. The fellow will join an inter-disciplinary team of molecular anthropologists and microbiologists in

exploring the diversity and scale of antibiotic resistance in human-associated microbial ecologies. Potential research projects include isolation and characterization of antibiotic resistant microbes from non-industrial human populations, and the identification and validation of novel genomic determinants of antibiotic resistance.

The ideal candidate will have a strong background in microbial cultivation, functional characterization (cloning, gene knockout/complementation), and basic molecular techniques (DNA/RNA extraction, PCR, RT-PCR). Preference will be given to candidates with prior experience in antibiotic resistance and/or anaerobic techniques.

The fellow will receive extensive training in high-throughput microbiome characterization, bioinformatic approaches (comparative genomics, microbiome informatics, phylogenomics), and ecological/evolutionary theory.

Complete the application at <https://apply.interfolio.com/79708> with Cover Letter and complete CV (with references) Job Number 79708

Direct Link: <https://apply.interfolio.com/79708> For additional questions, contact Dr. Cecil M. Lewis, Jr. Email: cmlewis@ou.edu With subject line: ATTN - Postdoctoral Fellow - Microbial Physiology

cmlewis@ou.edu

UPrague Biodiversity Evolution

*** Full time 2-year postdoc position in biodiversity science and macroecology ***

I offer a 2-year full-time postdoctoral position in macroecology, ecological statistics, biogeography, and spatial ecology. The candidate will join the small team of Dr. Petr Keil (<https://petrkeil.github.io/website/>) at the Dpt. of Applied Geography and Spatial Planning at the Faculty of Environmental Sciences of Czech University of Life Sciences in Prague, Czech Republic (<https://www.fzp.czu.cz/en/>).

The postdoctoral project will be related to biodiversity and its patterns in space and time, and across spatial scales. The position is thematically flexible; in an ideal case we will find a topic that reflects both the candidate's and my interests, and that fits the department. I am interested in how biodiversity (and its facets) changes in time, which includes extinctions and inva-

sions, their spatial and temporal scaling, and drivers of the change - check my website for more details. I have a broad taxonomic focus, we can work on terrestrial taxa (plants, vertebrates, insects), as well as freshwater, marine, or microbial groups. Elements of evolutionary biology, historical biogeography, or applied conservation issues are also attractive, and particularly welcome is a drive to cross discipline boundaries. Purely methodological and statistical topics are also great. Work done in my lab will be mostly computational, with emphasis on statistics and simulations (in R, Python, or similar) and geographic information systems (GIS). However, I am open to ideas for experiments and fieldwork. I value originality, independence, and initiative, and I encourage applicants to propose their own research ideas. During the 2 years, the postdoc will have my support to work on their own grant or fellowship applications. Apart from dissemination of scientific results via journal publications and conferences, I expect the postdoc to participate on workshops and training, and there will also be teaching opportunities.

Requirements

- PhD in ecology, geography, zoology, botany, bioinformatics, biostatistics, environmental sciences, or related field. PhDs in mathematics, physics, or statistics are also interesting.
- Ability to publish in peer-reviewed journals.
- Experience with spatial/geographical data.
- Experience with statistical analyses and simulations in R, Python, or similar environment.
- I aim to increase the diversity of my team, and I welcome applicants of all genders, cultures, backgrounds, ages, or countries. I believe that a diverse team will broaden perspective and enhance creativity.

We offer

- Gross salary of 50,000 CZK/month (1,886 EUR as of 9/9/2020), which is ca 36,500 CZK/month net, but the latter varies depending on family situation and other circumstances. Median salary in the Czech Republic at the end of 2019 was ca 31,000 CZK/month gross. Living costs are generally lower than in Western Europe (see <https://www.sreality.cz/en> for costs of accommodation).
- Medical insurance as a standard part of the employment contract.
- Bonus payments for high-quality publications.
- Resources for travel to conferences or workshops abroad. State of the art scientific equipment, software, access to journals and scientific databases.
- International working environment (the working language is English), green spacious campus in Suchbátka in the outskirts of Prague, 30 min to Prague city center by public transportation or bike.
- Starting date: November 2020
- February 2021, later dates are negotiable.

Applications

To apply, please send me by email (keil@fzp.czu.cz), in a single .pdf of less than 10 MB: - Motivation letter, including your ideas about what you'd like to work on, why do you see yourself as a good fit, and where do you see you and your research in the future. - Your CV including your publications and any other relevant outputs (code repositories, reports, your personal website, .). - Contact details for 2-3 academic referees, e.g. your former supervisor, boss, or collaborator.

Review of applications will begin on 15th of October 2020, and will continue until the position is filled.

keil@fzp.czu.cz

USDA CornellU GWAS

The position is with the USDA-ARS Plant Soil and Nutrition Research Unit and our lab is co-located in the Plant Breeding and Genetics Section at Cornell University. Our lab maintains the largest publicly available data resource on field and genotyping trials for wheat, barley, and oat: the Triticeae Toolbox (T3, triticeatoolbox.org). The postdoc will leverage de novo assembled genomes in these species to create an imputation engine, which, combined with T3 data, will enable more powerful association analyses than ever before in these species

The USDA-ARS Plant Soil and Nutrition Research Unit and the Cornell Plant Breeding & Genetics Section train interdisciplinary scientists in the elaboration of new breeding methods, the discovery of genetic mechanisms important for economically important traits, and the creation of genetic stocks, germplasm, and varieties. We promote a collaborative and interactive workspace to improve learning, cross connectivity, and mutual support between basic and applied researchers. We are world leaders in innovative plant breeding research, teaching, and extension, and we collaborate globally.

The Jannink lab works with several crop species (wheat, oat, barley, cassava, and the brown algae sugar kelp) to develop genomic prediction methods and integrate them optimally into breeding schemes. We work together to discover, build on, and share new ideas and tools from across computational disciplines that lead to successful applied breeding outcomes. The valuable phenotypic data resource that we have compiled over more than ten years in T3 contains lines that have been genotyped on a number of different platforms, preventing a powerful joint analysis. Recent decreases in the cost of long-

read sequencing have facilitated the de novo assembly of small but diverse panels in our target species. These panels sample a high percentage of the haplotypes segregating across the genome in domesticated populations and thus enable whole-genome sequence imputation for any line that is genotyped at sufficient density. Imputation, in turn, creates a uniform, high density marker set across lines as needed by many genotype-to-phenotype mapping analyses. The postdoc will work in this computational genetics space and collaborate with software developers to make analyses available to public-sector breeders globally.

We seek a candidate with computational biology expertise and interest in large-scale genotype-to-phenotype analyses as well as in software development. Primary tools for the analyses exist. The postdoc will implement them in robust code deployable in the cloud or local servers, apply them to data in T3, and publish methodology and discovery articles. In addition to T3, the campus hosts much relevant software development: Breedbase (breedbase.org), GOBii (gobiiproject.org), Breeding Insight (breedinginsight.org), and BrAPI (brapi.org). The postdoc will collaborate whenever fruitful with these efforts to extend functionality to broader audiences.

Term is two years.

Anticipated Division of Time Imputation and GWAS model building and implementation 35% Software development / collaboration 20% Writing 30% Training of lab members and collaborators in computational biology 15%

Position Requirements PhD in bioinformatics or computational biology with knowledge of quantitative or population genetics, or PhD in plant or animal breeding, quantitative or population genetics with emphasis on computational and statistical methods. Strong programming skills, ability to collaborate on software development projects. Proficiency in R. Demonstrated communication skills, both written and verbal. Management and leadership soft skills a plus.

How to Apply For further information, contact Jean-Luc Jannink (jeanluc.jannink@usda.gov). Applications should include a statement of interest relative to the research proposed here, a CV, and a list of three references. References will only be contacted if you give permission. We will review applications holistically, seeking to understand your relevant skills, your motivation for creating knowledge and problem solving, your contribution to our group's diversity and its organizational capacity. Review of applications will begin immediately and continue until the position is filled.

Jean-Luc Jannink (preferred pronouns: he/him/his) USDA-ARS, Robert W. Holley Center for Agriculture and Health Phone: +1 607 255 5266 Fax: +1 607 255 6683

Cornell University Dept. of Plant Breeding and Genetics 258 Emerson Hall Ithaca, NY 14853 USA

Jean-Luc Jannink <jeanluc.work@gmail.com>

USheffield PlantPhyloGenomics

A three-year postdoc position funded by NERC is available at the University of Sheffield (United Kingdom), in the department of Animal and Plant Sciences. The postdoc will work with Pascal-Antoine Christin (<http://christinlab.group.shef.ac.uk/>) and Luke Dunning (<https://dunning-lab.group.shef.ac.uk/>).

The project The goal of this project is to quantify the rate of gene exchanges among different groups of grasses and test for factors promoting such exchanges. Genome data will be generated for seven new species and combined with existing datasets for other grasses. Existing bioinformatic and phylogenomic pipelines will be improved and used to detect all genes that have been exchanged among distinct species. Subsequent analyses will provide direct estimates of the rate of such exchanges through time for different groups and evaluate the hypotheses that such plant characteristics increase this rate.

What we require You will be responsible for generating the genomic data, improving our analytical pipelines and using it to perform phylogenomic analyses. You will then disseminate the results of the project through presentations and scientific publications. Applications are invited from candidates with interests in genome evolution and the use of large datasets to address important questions in evolutionary biology. A PhD in evolutionary genomics or related field is required, as well as a track record of scientific dissemination. A demonstrated expertise in genomics, phylogenetics, or bioinformatics and experience in UNIX and programming are preferable.

What we offer A three-year contract is offered (Grade 7 - 31,866 - 33,797 per annum). The successful candidate will integrate into a research team studying the origins and consequences of novel adaptations in plants. They will collaborate with groups studying evolution,

genomics, ecology and physiology.

How to apply Job reference number UOS026571 For application details and submission, see: <https://tinyurl.com/y3eeyx26> Application deadline is 15th November 2020 Preferred starting date is 1st February 2021

For informal inquiries, contact p.christin@sheffield.ac.uk

USouthFlorida HouseSparrowEvolution

The Martin Lab at University of South Florida, Tampa, is seeking to hire a postdoctoral scholar to perform research on epigenetic and immunological mechanisms involved in the spread of the house sparrow across the globe. Successful candidates will be part of an interdisciplinary program seeking to discern how epigenetic potential (i.e., DNA sequence variation influencing DNA methylation, gene expression and hence phenotypic plasticity) impacts the success of colonizing populations via alteration of gut immune function. The postdoc will have some latitude to develop her/his own research projects, as long as they complement the foci of the main project. The principal duties and obligations of the appointment are to conduct research in accordance with the needs of a recently funded NSF grant in avian ecological epigenetics (https://www.nsf.gov/awardsearch/showAward?AWD_ID_27040), which is a collaboration with Dr. Rays Jiang at USF, Dr. Kevin Kohl of the University of Pittsburgh and Dr. Aaron Schrey of Georgia State University. For information on work in the Martin lab, please see www.organismalbiology.weebly.com. The position will remain open until filled, but review of applications will begin on November 15, 2020. Please contact Dr. Martin with questions at: lbmartin@usf.edu.

Minimum Qualifications: Must have a PhD or equivalent degree in biology, ecology, behavior, immunology, and/or evolution, and should have experience working with live songbirds in the field and lab and some familiarity with appropriate techniques (e.g., immune assays, histology, necropsy, quantitative PCR, RNA-seq, microbiome analyses) as well as a solid publication record. Preferred Qualifications: Proficient in Program R or an equivalent, experience in avian immunology, ideally the gut mucosal immune system. Strong record of research achievements. Candidates must be highly motivated, able to think and work independently but as part of a multidisciplinary research team. Candidates must also

be willing to travel internationally, sometimes for long periods.

The University of South Florida is a high- impact global research university dedicated to student success. Over the past 10 years, no other public university in the country has risen faster in U.S. News and World Report's national university rankings than USF. Serving more than 50,000 students on campuses in Tampa, St. Petersburg and Sarasota-Manatee, USF is designated as a Preeminent State Research University by the Florida Board of Governors, placing it in the most elite category among the state's 12 public universities. USF is a member of the American Athletic Conference. With more than 16,000 employees, the University of South Florida is one of the largest employers in the Tampa Bay region. At USF you will find opportunities to excel in a rich academic environment that fosters the development and advancement of all employees. We believe in creating a talented, engaged and driven workforce through ongoing development and career opportunities. To learn more about working at USF please visit: USF.edu Part of USF Health, the USF College of Public Health was founded in 1984 as the first college of public health in Florida and consists of a multidisciplinary faculty of 84 scholars, professionals and leaders serving the educational needs of more than 4,500 students in bachelor, master's and doctoral degree programs. COPH is organized into four Strategic Areas: Global and Planetary Health; Interdisciplinary Science and Practice; Policy, Practice and Leadership; and Population Health Science. Our faculty select their strategic area of interest and are encouraged to engage in transdisciplinary research and teaching with faculty from across the college. We are transforming curricula and degree programs at all levels; we are engaging in translational research and the translation of that research to practice; and we are committed to public health workforce and systems development, locally and around the world. As part of the Center for Global Health Infectious Disease Research and the USF Genomics Program, the selected faculty candidate will engage with and enjoy many active collaborative relationships with our colleagues across colleges of the University. See the COPH website at <http://health.usf.edu/publichealth/> to learn more about our dynamic and innovative faculty and College. USF Tampa is located in a dynamic and growing metropolitan area of over three million residents and offers a wide-range of cultural, artistic, athletic and recreational activities, excellent public schools, close proximity to Gulf of Mexico beaches, and an affordable cost of living.

“Martin, Lynn II” <lbmartin@usf.edu>

UUm BeeVirusEvolution

University of Ulm, Germany Institute of Evolutionary Ecology and Conservation Genomics

Wilfert group

We would like to recruit a Postdoctoral Research Fellow as part of an ERC consolidator project to study the evolution of bee viruses in nature following the introduction of a vector, the ectoparasitic Varroa mite. The project will be based on initial field work (Islands in the Irish Sea and Channel). The project will focus on reconstructing transmission networks between bee species as well on understanding patterns of evolution in viruses following the introduction of vector-born transmission. The ERC-funded post is for 3.5 years (salary scale TV-L 13, 100%) , with a preferred starting date in March 2021 to allow for fieldwork from mid-June.

The post will include population genetics, phylogenetic modelling, new sequencing approaches and bioinformatics as well as field work and associated lab work focussing on RNA virus detection. Expert dedicated technical support is available for field and lab work. The successful applicant will be able to develop research objectives, projects and proposals; identify sources of research funding and contribute to the process of securing funds and make presentations at conferences and other events.

Applicants will possess a relevant PhD in a related field of study. The successful applicant will have expertise in the fields of phylodynamics, disease ecology or molecular ecology. The successful applicant will also be able to work collaboratively, supervise the work of others and act as team leader as required. Applicants should have expertise in population genetics, phylogenetics and/or bioinformatics. Ideally, the candidate will have experience in phylogenetic modelling of viral transmission and/or molecular ecology of RNA viruses. Experience in fieldwork and wet lab molecular ecology and evolution would be advantageous.

The position will be based at the University of Ulm, at the Institute of Evolutionary Ecology and Conservation Genomics. Ulm is a delightful historic city on the Danube in Southwestern Germany; it is one hour from the Alps, Lake Constance, Munich and Stuttgart.

For further information, please contact Prof. Dr. Lena Wilfert lena.wilfert@uni-ulm.de. The closing date is the 10th of November 2020. The job advert with detailed

information on profile and responsibilities, as well as the link to the online application system can be found here <https://stellenangebote.uni-ulm.de/jobposting/-6802bbb8b016e80296c55f398d2cde44cb995f66> Please note that applications have to be processed online!

Prof. Dr. Lena Wilfert University of Ulm Institute of Evolutionary Ecology and Conservation Genomics Albert-Einstein Allee 11 D-89069 Ulm Germany Tel.: 0049-731-5030615 Fax: 0049-731-5022683

email: lena.wilfert@uni-ulm.de Website: <https://www.uni-ulm.de/en/nawi/bio3/prof-dr-lena-wilfert/>
lena.wilfert@uni-ulm.de

UWisconsinMadison PopulationGenomics

The research group of John Pool at the University of Wisconsin - Madison invites applications for a postdoctoral research position. There are multiple potential project areas, with an overarching theme of addressing big questions in population/evolutionary genetics. I'd like to give the successful candidate for this position a strong voice in shaping their research direction in the lab.

The Pool Lab has a longstanding emphasis on the Genetic Architecture of Adaptive Evolution and an emerging focus on the Genetic Architecture of Early Stage Reproductive Isolation. While the range of potential projects is fairly broad, I am especially interested in prospective postdocs who might like to establish new research directions in one of the following areas:

* Estimating Adaptive Potential from Genomic Variation It is widely recognized that genetic diversity is a primary determinant of whether populations can rapidly adapt to new challenges. Yet despite its relevance to basic evolutionary biology and conservation, our understanding of adaptive potential is still quite lacking. Our lab is interested in which types of genetic diversity are most important for adaptive potential (e.g. neutral vs. adaptive variation) and how best to estimate adaptive potential within and among populations.

* Fundamental Population Genetic Inference from Population Differentiation We are interested in leveraging large data sets (such the >1000 genomes from our Drosophila Genome Nexus) to ask foundational population genetic questions. Most relevant studies have only considered data from a single population, whereas we are

especially interested in utilizing genetic differentiation between populations to address classic but unresolved questions about the influence of natural selection on genomic diversity, such as the relative importance of selective sweeps and background selection.

Our research group was founded 9 years ago and currently includes 1 postdoc and 6 graduate students. I have also advised 5 former postdocs, and the publication records of Amir Yassin and Justin Lack show what a productive environment our lab can be. I also welcome postdocs taking important components of our research with them when they found their own labs. Further lab info: <http://www.johnpool.net> UW-Madison offers a superb scientific environment with a supportive, collaborative, and egalitarian culture. Many labs focus on population genetics, evolutionary genomics, and Drosophila research: <https://evolution.wisc.edu/people/faculty/> <https://genetics.wisc.edu/drosophila-and-other-insects/> Madison offers an exceptional quality of life in a beautiful landscape, and has been ranked as the best US city for young adults. Downtown and campus are bordered by lakes, and Madison features diverse art, music, cultural, and culinary offerings. <http://www.visitmadison.com/media/rankings/> I am highly interested in adding to the diversity of our lab in a broad sense, including gender balance, cultural perspectives, and intellectual backgrounds and skill sets.

To apply, send a statement of research interests (up to 1 page) addressing the intersection between your own scientific interests and the Pool lab's research in terms of potential projects, along with a CV and contact info for 3 references.

Start dates are flexible. Salary follows the NIH scale. Individual or family health insurance is offered. Applicants outside the US may be able to start remotely for the initial months of the postdoc.

Applications are due December 1. However, earlier applications are welcome, and later applications may still be considered. Informal pre-application inquiries (e.g. to discuss potential research topics) are also welcome at any time.

John Pool Associate Professor Laboratory of Genetics University of Wisconsin - Madison

"jpool@wisc.edu" <jpool@wisc.edu>

UZH Switzerland Theoretical Studies Of Adaptation

10-12 months postdoctoral project - theoretical studies of adaptation in a changing environment

I am looking for a postdoctoral researcher with a strong theoretical background in population or quantitative genetics, evolutionary biology, ecology or physics. Experience in mathematical modelling and simulations is necessary, experience with building databases is a plus.

The candidate will participate in a theoretical/computational project of adaptation funded by SNSF (SPARK grant to Barbora Trubenova < <https://usys.ethz.ch/en/people/-profile.Mjc2OTY4.TGlzdC82MzcsMzIwMTk3MjIy.html> >). The postdoc will also interact with, and be hosted by, Hanna Kokko's group at the University of Zurich, www.kokkonuts.org. The focus of the project is on cross-disciplinary analysis of already published models used to model adaptation in a changing environment. The aim is to synthesise our knowledge of adaptation in a changing environment gained by various disciplines (evolutionary biology, ecology, physics...), compare the models, their assumptions and predictions, and build a model database that would facilitate the communication between the fields in the future and comment on the pros and cons of each theoretical approach.

The successful candidate is expected to have a proven publication and presentation record in English. The ideal start time is December 2020, or shortly after. The project ends on the 30th of November 2021. While the time frame of the project is short, there may be opportunities to supervise a MSc student.

How to apply:

Send your application by 15 October 2020 to Barbora Trubenova (barbora.trubenova@env.ethz.ch). Applications should include the following documents as a single pdf file:

- * motivational letter (max 1 page),
- * CV (max 2 pages), * publication list.

Please also include contact information of two persons willing to provide a reference letter by separate request.

barbora.trubenova@env.ethz.ch

UZurich ExptEvolutionaryBiol

Postdoc in experimental evolutionary biology

A postdoctoral fellowship in evolutionary biology is available in the laboratory of Andreas Wagner at the University of Zurich. The fellow will use experimental evolution to study the role of epistasis, robustness, or gene expression noise in the evolution and evolvability of proteins, RNA, or regulatory DNA. Lab members are a group with very diverse backgrounds and research projects, unified by their interests in evolution and life's fundamental organizational principles. Recent experimental work in the lab ranges from the directed evolution of proteins to experimental evolution of microbes (e.g., Zheng et al., Science 2019; van Gestel et al., Nature Ecology and Evolution 2019). The successful candidate will have flexibility in designing their own project, as long as it falls within the purview of the lab's general research area (see also <http://www.ieu.uzh.ch/wagner/>).

We are looking for an individual who has received his or her PhD within the last five years, who is highly self-motivated and can work independently on a project that he or she will help develop. The successful candidate will have a strong background in microbiological techniques and molecular cloning. Applicants with experience in approaches such as deep-scanning mutagenesis, molecular barcoding, and CRISPR-Cas-based library design will be especially welcome. Experience with flow cytometry, as well as with computational analysis of high-throughput DNA sequence data will be a plus, as will be a research history in evolutionary biology. The position offers a highly competitive salary of up to three years on annually renewable contracts.

The working language in the laboratory is English. German skills, although helpful, are not essential. Zurich is a highly attractive city in beautiful surroundings, with a multinational population, and many educational and recreational opportunities.

To be considered, please send a single (!) PDF file merged from the following parts to jobs.wagner@ieu.uzh.ch: CV including publication list, academic transcripts, three academic references, and a statement of research interests not exceeding three pages that includes a sketch of an experimental evolution project that you would like to pursue. Please include the word "EXPPDOC21" in the subject line. Applications will be considered until October 28, 2020,

or until the position has been filled. The position is available from early 2021.

Annette Schmid Administrative Assistant of Prof. A. Wagner / HR University of Zurich Institute of Evolutionary Biology and Environmental Studies Wagner lab, Y27-J52 Winterthurerstrasse 190 CH-8057 Zurich Switzerland Mail to: annette.schmid@ieu.uzh.ch Phone +41 (0)44 635 61 42 Fax +41 (0)44 635 61 44 at the office on Monday and Thursday

“jobs.wagner@ieu.uzh.ch” <jobs.wagner@ieu.uzh.ch>

WashingtonStateU PathogenEvolution

Postdoc in Molecular Ecology of Vector-Borne Pathogens

We are looking for a postdoctoral scholar who will be a part of an interdisciplinary team focused on evolutionary ecology and molecular ecology of insect vectors and insect-borne pathogens of vegetable and seed crops in the Pacific Northwest USA. Crops throughout this region, including potatoes, beets, carrots, radish, onions, and seed crops are threatened by vector-borne pathogens transmitted by aphids, leafhoppers, and psyllids (among others). Many of these insect pests use both crop and non-crop hosts in the landscape, and transmission of pathogens depends on movement within and between different habitat patches. Pathogens carried by insect vectors can also affect relationships between vectors and hosts, and co-evolution between vectors, pathogens, and their hosts can strongly influence pathogen dynamics over long time scales. However, we currently have only a limited understanding of insect feeding behavior and host use and the evolutionary ecology of vectors and their hosts. The postdoctoral associate will work within the broader team to evaluate the sources of vector-borne pathogens into crops by conducting molecular ‘gut-content analysis’ of insect vectors to assess host use. In addition, the postdoc will be given considerable flexibility to develop additional lines of inquiry based on their own expertise, particularly in the realm of molecular plant-insect-pathogen interactions. The position will involve collaborative research with a broad team of researchers in Washington and Oregon and will involve both field and laboratory research. Given the need for a person to conduct laboratory work, unfortunately we cannot accept applications from postdocs who wish to work remotely, although we understand the challenges

of moving in the current climate.

Salary for the position will be \$49,500 per year. The position offers full benefits including health insurance, life insurance, and retirement benefits. Salary support has been obtained for at least two years, with possibility of extension for multiple additional years pending successful performance evaluations and continued availability of funding.

To apply: Please send a cover letter detailing interest in the position, a current CV, and a list of 3 professional references to Dave Crowder (dcrowder@wsu.edu). Applications will be reviewed as they are received.

Anticipated Start Date: Position available immediately, although we are hoping to have someone in place no later than 1/01/2021.

Required Qualifications: PhD in Plant Pathology, Molecular Biology, Entomology, or related scientific fields obtained within 5 years of the start date. Strong demonstrated background in molecular biology and/or insect vector biology.

Dave

dcrowder@wsu.edu

WyomingNevadaMontana EvolutionEcology

We are seeking twelve postdoctoral researchers to join our interdisciplinary data science team, spanning multiple research areas in ecology and evolutionary biology. The postdoctoral researchers will join a collaboration among eight faculty at the University of Wyoming, University of Montana, and University of Nevada-Reno, including Drs. Alex Buerkle, Christopher Weiss-Lehman, Lauren Shoemaker, Sarah Collins, and Daniel Laughlin (UW), Joanna Blaszczak and Matt Forister (UNR), and Bob Hall (UM).

Dramatic increases in the scale and availability of data are profoundly reshaping all domains in the life sciences. Data acquisition and availability from DNA sequencers, environmental sensors, parallel global studies, and imagery are outpacing our capacity for analysis, including the development of models that represent our knowledge of biological processes. Research in our consortium will develop and compete computational, statistical, and machine learning methods for multi-dimensional data to create predictive and explanatory models for the life

sciences. The project focuses on three research areas: (1) connecting genome to phenome (particularly in the context of evolutionary biology), (2) mechanistic modeling of species interactions and community diversity, and (3) time series of material and energy flux in aquatic ecosystems.

The positions are 100% research with flexible start dates; however, preference will be given to candidates who will be able to join the consortium immediately. The positions are for two years, with the possibility for extending the appointment, contingent upon performance.

The postdoctoral researchers will be primarily based in one or a few labs but will benefit from the opportunities to collaborate broadly. The positions allow for multiple professional development opportunities, including training in highly interdisciplinary science, collaborations across institutions, regular meetings with the entire consortium, mentorship toward academic and non-academic career development, and interactions with graduate and undergraduate students.

Successful applicants are not expected to have expertise in all facets of the project, but rather may be experts in a given area of modeling or domain of the life sciences. The postdoctoral researchers will primarily analyze existing and simulated data, and will have additional, complementary opportunities for laboratory or field research. We recognize that the best science can originate from diverse collaborations with people from varied backgrounds, and we especially encourage applicants from underrepresented groups to apply. The positions are supported by a 4-year, \$6 million NSF EPSCoR RII Track-2 grant in response to our proposal entitled Creating Explanatory, Process-Based Models to Harness the Data Revolution in the Life Sciences. Additional details are available from <https://microcollaborative.atlassian.net/1/c/1cun6XLd> **QUALIFICATIONS**

All twelve positions share the same qualifications. Seven positions are associated with the University of Wyoming,

three positions with the University of Nevada-Reno, and two positions with the University of Montana.

Required qualifications - completion by position start date of all requirements for a PhD in ecology, evolutionary biology, environmental science, statistics, computer science, mathematics, complex systems science, or a related field.

Preferred qualifications In the cover letter, applicants should state clearly and illustrate how their experience and interests match the following preferred qualifications. - record of publishing in peer-reviewed literature - excellent verbal and written communication skills - experience in at least one of the following research areas: (a) connecting genome to phenome, or other aspects of evolutionary genetics, (b) mechanistic modeling of species interactions, population dynamics, and community diversity, or (c) examining material and energy flux in aquatic ecosystems - has a keen interest in developing skills in mathematical or statistical modeling to extend strong conceptual thinking and research in life sciences - previous interdisciplinary and collaborative work, in addition to project leadership - interest in working with a diverse team across disciplinary boundaries

TO APPLY Project details and links to specific positions are available at <https://microcollaborative.atlassian.net/1/c/1cun6XLd>

Applicants may and are encouraged to apply for multiple positions in the consortium. We also encourage candidates to contact potential advisors to discuss interests in advance of applying.

To apply, submit a cover letter stating your interest in the position

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Workshops Courses

Ingelheim SocialInsectAging Nov25-28 DeadlineOct15 101 Mainz AgingInSocialInsects Postponed Sep29-Oct1 102 Online 15 Bioinformatics 102 Online BigDataBiogeography Feb1-5 103 Online BioinformaticsWithPython Jan25-29 103 Online EvolutionaryBiogeography Dec7-11 104	Online GenomeAssembly Feb15-26 104 Online GenomicPrediction Feb8-12 105 Online MetabarcodingBiodiversity Jan7-13 105 Online NanoporeRNAseq Jan18-22 106 Online RNAseq 2 Oct19-22 Nov2-5 106 TreeCanopy Tools 108
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Ingelheim SocialInsectAging Nov25-28 DeadlineOct15

DEADLINE OCTOBER 15TH REGISTER NOW!

Gutenberg Workshops presents: Aging in Social Insects
25 - 28 November 2020 | Ingelheim, near Mainz (Germany)

Hybrid workshop format

A characteristic of social insects is reproductive division of labor, which led to the evolution of disparate phenotypes or castes, which differ not only in behavior and reproduction, but also in lifespan. Indeed, social insect queens can live for many years (up to several decades), whereas their workers are much shorter lived. In most social insects, female eggs are totipotent and can develop into either queens or workers, in response to conditions experienced during larval development. Recent advances in molecular biology allow the field of social insect biology to investigate the genes, pathways and gene regulatory mechanisms that control caste differences. It is of great interest beyond social insect research to determine which molecular mechanisms allow social insect queens to live so long.

This Gutenberg Workshop on Aging in Social Insects will bring together researchers investigating the evolution and molecular basis of lifespan in social insects with researchers working on longevity in other model organisms to understand how social evolution led to shifts in the molecular regulation of aging.

Confirmed speakers:

Gro Amdam Arizona State University Tempe, Az, USA

Andrew Bourke University of East Anglia, UK

Barbara Feldmeyer BIK-F Senckenberg, Germany

Thomas Flatt University of Fribourg, Switzerland

Jürgen Heinze University of Regensburg, Germany

Laurent Keller University of Lausanne, Switzerland

Judith Korb University of Freiburg, Germany

Daniel Kronauer Rockefeller University, NY, USA

Romain Libbrecht Johannes Gutenberg University Mainz, Germany

Jürgen Liebig Arizona State University Tempe, Az, USA

Alexei Maklakov University of East Anglia, UK

Mario Muscedere Boston University, USA

Olav Rüppell University of Alberta, Canada

The workshop will be held as a hybrid workshop format in the scenic Monastery Wasemin Ingelheim, providing a stimulating atmosphere for scientific talks and discussions. Due to the COVID-19 pandemic and the ongoing restrictions, there are limited spaces available on site as well as the possibility of a remote online participation.

For all further information and the application for the workshop, please visit: <https://gutenberg-workshops.uni-mainz.de/aging-in-social-insects-nov-20/>
We look forward to seeing you in Ingelheim or virtually!

Prof. Dr. Susanne Foitzik Institute of Organismic and Molecular Evolution Johannes Gutenberg University Mainz Biozentrum Hanns Dieter Hüsch Weg 15 D-55128 Mainz Germany Tel: +49 (0) 6131 39 27 840 Fax: +49 (0)6131 39 27 850 Email: foitzik@uni-mainz.de

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

Mainz AgingInSocialInsects Postponed Sep29-Oct1

Dear colleagues,

we chose to postpone our workshop “Aging in Social Insects” due to the increase in Covid-19 infections. Mainz is a risk area for more than a week and we do not feel comfortable hosting an on-site workshop here.

At the same time, it is important for us to create an event where people can meet and interact, so we decided not to change the workshop to an online-only format.

The workshop will take place next year: Sep 29th- Oct 1st, 2021. We hope that all of you who registered will be able to participate next year! We are looking forward to seeing you next year!

Susanne Foitzik

Prof. Dr. Susanne Foitzik Institute of Organismic and Molecular Evolution Johannes Gutenberg University Mainz Biozentrum Hanns Dieter HAA¹sch Weg 15 D-55128 Mainz Germany Tel: +49 (0) 6131 39 27 840 Fax: +49 (0)6131 39 27 850 Email: foitzik@uni-mainz.de

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

Online 15 Bioinformatics

PR statistics has 15 courses running between now and the end of January from 2 day intro courses in R and Python to more advanced 5 day courses!

Feel free to share, email oliverhooker@prstatistics.com with any enquiries

Introduction to statistics using R and Rstudio (IRRS02) 28 October 2020 - 29 October 2020 <https://www.prstatistics.com/course/introduction-to-statistics-using-r-and-rstudio-irrs02/> Species distribution modelling with Bayesian statistics in R (SDMB01) 9 November 2020 - 13 November 2020 <https://www.prstatistics.com/course/species-distribution-modelling-with-bayesian-statistics-in-r-sdmb01/> Introduction to Bayesian modelling with INLA (BMIN01) 9 November 2020 - 13 November 2020

<https://www.prstatistics.com/course/introduction-to-bayesian-modelling-with-inla-bmin01/> Introduction to generalised linear models using R and Rstudio (IGLM02) 18 November 2020 - 19 November 2020 <https://www.prstatistics.com/course/introduction-to-generalised-linear-models-using-r-and-rstudio-iglm02/>

Fundamentals of populations genetics using R (FOPG01) 18 November 2020 - 27 November 2020 <https://www.prstatistics.com/course/fundamentals-of-populations-genetics-using-r-fopg01/>

Introduction to mixed models using R and Rstudio (IMMR03) 25 November 2020 - 26 November 2020 <https://www.prstatistics.com/course/introduction-to-mixed-models-using-r-and-rstudio-immr03/>

Introduction to Python (PYIN01) 25 November 2020 - 26 November 2020 <https://www.prstatistics.com/course/introduction-to-python-pyin01/>

Model-based multivariate analysis of abundance data using R (MBMV03) 16 November 2020 - 27 November 2020 <https://www.prstatistics.com/course/model-based-multivariate-analysis-of-abundance-data-using-r-mbm03/>

Bayesian hierarchical modelling using R (IBHM05) 27 November 2020 - 11 December 2020 <https://www.prstatistics.com/course/bayesian-hierarchical-modelling-using-r-ibhm05/>

Meta-analysis in ecology, evolution and environmental sciences (METR01) 30 November 2020 - 4 December 2020 <https://www.prstatistics.com/course/meta-analysis-in-ecology-evolution-and-environmental-sciences-metr01/>

Introduction to Python for Scientific Computing (PYSC01) 2 December 2020 - 3 December 2020 <https://www.prstatistics.com/course/introduction-to-python-for-scientific-computing-pysc01/>

Machine Learning and Deep Learning using Python (PYML01) 9 December 2020 - 10 December 2020 <https://www.prstatistics.com/course/machine-learning-and-deep-learning-using-python-pyml01/>

Structural Equation Modelling for Ecologists and Evolutionary Biologists (SEMR03) 18th January 2021 - 22nd January 2021 <https://www.prstatistics.com/course/structural-equation-modelling-for-ecologists-and-evolutionary-biologists-semr03/>

Species Distribution Modeling using R (SDMR03) 25th January 2021 - 29th January 2021 <https://www.prstatistics.com/course/species-distribution-modeling-using-r-sdmr03/>

Advanced Ecological Niche Modelling Using R (ANMR01) 25th January 2021 - 29th January 2021 <https://www.prstatistics.com/course/advanced-ecological-niche-modelling-using-r-anmr01/>

– Oliver Hooker PhD. PR statistics

2020 publications; Parallelism in eco-morphology and gene expression despite variable evolutionary and genomic backgrounds in a Holarctic fish. PLOS GENETICS (2020). IN PRESS

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

Online BigDataBiogeography Feb1-5

Dear all,

registrations are now open for the 2nd ONLINE edition of the Physalia course on Big data Biogeography - Species occurrences through space and time.

When: 1-5 February 2021

Course website: (<https://www.physalia-courses.org/courses-workshops/course48/>)

Instructors: Dr. Alex Zizka (German Centre for Integrative Biodiversity Research (iDiv) in Leipzig, Germany) and Dr. Daniele Silvestre (University of Lausanne, Switzerland)

The public availability of large-scale species distribution data has increased drastically over the last ten years. In particular, due to the aggregation of records from museums and herbaria, and citizen science in public databases such as the Global Biodiversity Information Facility (GBIF). This is leading to a 'big data' revolution in biogeography, which holds an enormous but still poorly explored potential for understanding large scale patterns and drivers of biodiversity in space and time.

After this course, students will be able to:

Obtain and prepare large scale species occurrence records from public databases in R (including data mining, data cleaning and exploration)

Apply novel methods for handling and processing 'big data' in biogeographic research, including area classification, bioregionalization and automated conservation assessments

Reconstruct species ancestral ranges based on species occurrences and phylogenetic trees, using different evolutionary models

Understand the potential and caveats of fossil based biogeography, and be familiar with novel methods to estimate ancestral ranges and evolutionary rates from ranges of extinct and extant taxa

For the full program, please see: (<https://www.physalia-courses.org/courses-workshops/course48/curriculum48/>)

<https://www.physalia-courses.org/courses-workshops/course48/curriculum48/>)

Here is the full list of our courses and Workshops: (<https://www.physalia-courses.org/courses-workshops/>)

Should you have any questions, please feel free to contact us: info@physalia-courses.org

Best regards,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR
info@physalia-courses.org <http://www.physalia-courses.org/> Twitter: @physacourses mobile: +49 15771084054 <https://groups.google.com/forum/#!forum/physalia-courses> info@physalia-courses.org

Online BioinformaticsWithPython Jan25-29

Dear all,

in this course participants will learn the Python programming language and how to use its modern libraries and applications to do cutting-edge research in biology.

During this course, students will initially learn what is computer programming using Python as a learning tool, and then deep dive into the peculiarities of Python by exploring advanced topics and external packages. Lessons consist of lectures followed by practical exercises where students will put into practice what learned during the course by solving problems and exercises based on users' suggestions.

Course website: (<https://www.physalia-courses.org/courses-workshops/course2/>)

Here is the full list of our courses and Workshops: (<https://www.physalia-courses.org/courses-workshops/>)

Should you have any questions, please feel free to contact us: info@physalia-courses.org

Carlo Pecoraro, Ph.D

Physalia-courses DIRECTOR info@physalia-courses.org <http://www.physalia-courses.org/> Twitter: @physacourses mobile: +49 15771084054 <https://groups.google.com/forum/#!forum/physalia-courses>

info@physalia-courses.org

Online Evolutionary Biogeography Dec7-11

Dear colleagues,

Registration is open for the Transmitting Science course “Model-Based Statistical Inference in Evolutionary Biogeography”.

Dates and Schedule: December 7th-11th. Monday to Friday (GMT+1, Spanish time zone): 08:00 to 12:00 am (online live lessons). The rest of the time will be taught through assignments, to be done between the live sessions.

Instructor: Nick Matzke (University of Auckland, New Zealand)

Preliminary program -Intro to R and phylogenies -How to read and use phylogenies -A short history of historical biogeography methods and assumptions -Likelihood-based statistical model choice -Phylogenetic biogeography -New probabilistic models for historical biogeography in BioGeoBEARS. -Using BioGeoBEARS and interpreting results. -Biogeographical stochastic mapping. -Including geographical and environmental distance in models. -Integrating biogeography with traits 'X trait-dependent dispersal -Running analyses over multiPhylo objects (posterior distribution) and interpreting results. -State-dependent Speciation/Extinction models (SSE) basics in R -State-dependent Speciation/Extinction models (SSE) for large biogeography problems in Julia -Integrating GIS & paleogeography data (e.g. Gplates) -Help session for student projects. -Wrap-up.

More information and registration:

<https://www.transmittingscience.com/courses/-evolution/model-based-statistical-inference-evolutionary-biogeography-2> or writing to courses@transmittingscience.com

Best regards

Sole

soledad.esteban@transmittingscience.org

Online Genome Assembly Feb15-26

Dear all, registrations are now open for our 2 ONLINE courses:

1) Genome Assembly and Annotation (15-19 February) with Dr. Thomas Otto (University of Glasgow) and Mr. Max Driller (Begendiv, Berlin).

This course will introduce biologists and bioinformaticians to the concepts of de novo assembly and annotation. Different technologies, from Illumina, PacBio, Oxford Nanopore and maybe 10X will be used mixed with different approaches like correction, HiC scaffolding to generate good draft assemblies. Particular attention will be given to the quality control of the assemblies and to the understanding how errors occur. Further, annotation tools using RNA-Seq data will be introduced. An outlook of potential analysis is given. In the end of the course the students should be able to understand what is needed to generate a good annotated genome.

Course website: (<https://www.physalia-courses.org/-courses-workshops/course20/>)

2) GENOME ASSEMBLY USING OXFORD NANOPORE SEQUENCING (22-26 February) with Dr. Robert Vaser and Mr. Josip Maric (University of Zagreb) .

This course will introduce the audience with a spectre of methods which are present in a usual assembly workflow, starting from raw data and finishing with a fully assembled genome. We will see how to obtain nucleotide sequences from raw signals, dive deeper into the most used assembly paradigm for long fragments, try out and compare several state-of-the-art assemblers, and at last, assess the quality of the obtained assembly with and without a reference genome.

Course website: (<https://www.physalia-courses.org/-courses-workshops/course59/>)

Here you can find the full list of our courses and Workshops: (<https://www.physalia-courses.org/courses-workshops/>)

Should you have any questions, please feel free to contact us: info@physalia-courses.org

All the best,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR

TOR info@physalia-courses.org (<http://www.physalia-courses.org/>) Twitter: @physacourses mobile: +49 17645230846 (<https://groups.google.com/forum/#!forum/physalia-courses>)

“info@physalia-courses.org”

<info@physalia-courses.org>

Online Genomic Prediction Feb8-12

Dear all,

registrations are now open for the ONLINE Physalia course “GENOME-WIDE PREDICTION OF COMPLEX TRAITS IN HUMANS, PLANTS AND ANIMALS”

When: 8-12 February 2021

Course website: <https://www.physalia-courses.org/courses-workshops/course49b/> This course will introduce students, researchers and professionals to the steps needed to acquire expertise in the genomic prediction area applied to animals, plants and humans.

The course is aimed at students, researchers and professionals interested in learning the different steps and approaches to perform a genomic prediction study. It will include information useful for both beginners and more advanced users. We will start by introducing general concepts of Quantitative Genetics and mixed model theory, progressively describing all steps and putting there seamlessly together in a general workflow. Attendees should have a background in biology, specifically genetics; previous exposure to statistical genetics would also be beneficial. There will be a mix of lectures and hands-on practical exercises using R, Linux command line and custom software. Some basic understanding of R programming and Unix will be advantageous. Attendees should also have some basic familiarity with genomic data such as those arising from NGS experiments.

LEARNING OUTCOMES

* Interpreting and calculating the genomic breeding value and genomic risk score * Understanding the different steps involved in a typical genomic prediction analysis and how to implement computer tools to carry them on. * Implement cross validation design to estimate the ability of genomic data to predict complex traits, and its application in human genetics and breeding programs.

Here you can find the full list of our courses and Workshops: <https://www.physalia-courses.org/courses-workshops/> Should you have any questions, please feel free to contact us: info@physalia-courses.org

All the best,

Carlo

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<info@physalia-courses.org>

Online Metabarcoding Biodiversity Jan7-13

Theory and practice in metabarcoding for biodiversity

FREE online workshop

7th-13th January 2021

www.metagenecol.eu Workshop overview:

Metagenomic methods continue to transform the analysis of biodiversity and provide exciting possibilities for studying the vast proportion of 'hidden diversity' of species hardly known to science. Massive amplicon datasets can be generated from complex specimen mixtures, and simplify studies of the ecology, evolution and conservation for ever more populations and species with high accuracy. However, data processing and interpretation require careful application of bioinformatics pipelines, to generate 'clean' data that reflect the true genetic variants required for use in evolutionary and ecological modelling. The course will teach the required bioinformatics and data handling skills, with focus on the potential of metabarcode sequences as a resource in biodiversity studies, taxonomy and population genetics. The course will take place fully online using a flexible model of both synchronous and asynchronous teaching. The course will comprise talks on the theory of metabarcoding and phylogenetics for metabarcoding, guided discussion sessions and detailed practical bioinformatics training. Synchronous sessions will take place on the dates 7-8th and 11-12-13th of January 2021 between 8am and 11am UTC, with support for the guided practicals available 11am to 5pm UTC.

Instructors:

Prof. Alfried P. Vogler (Imperial College London and the Natural History Museum, UK)

Dr. Thomas J. Creedy (Natural History Museum, UK)

Applications:

The course is aimed at graduate students and early-career researchers interested in applying accurate metabarcoding methods to questions about biodiversity and ecology. The course focuses on bioinformatic methods, so some prior experience with the linux command line is preferred, although pre-course online study materials will be available to all attendees to ensure a common starting point. An understanding of phylogenetics would be useful to get the most out of some sessions. For applications please send a single-page Curriculum Vitae and a short motivation letter (maximum 300 words) to ibiogen.project@gmail.com until the 20th of November 2020.

This workshop is organised by the iBioGen project <<https://www.ibiogen.eu>> funded under the Horizon 2020 Twinning scheme, so participation is completely free (there are no fees).

More details can be found on the website:

www.metagenecol.eu Anna Papadopoulou
<a.papadopoulou05@alumni.imperial.ac.uk>

Online NanoporeRNAseq Jan18-22

Dear all,

registrations are now open for the ONLINE Physalia course “An introduction to Nanopore direct RNA Sequencing”

When: 18-22 January 2021

Course website: (<https://www.physalia-courses.org/-courses-workshops/course59c/>)

This course is structured over 5 days of theoretical and hands-on training and covers the majority of the concepts and challenges commonly faced when analysing direct RNA-Seq data. It will start from common tasks such as data QC and gene expression quantification and then move on to more advanced topics such as transcriptome assembly, polyA-tail length measurements and RNA modifications detection.

This course is intended for an audience of researchers with a certain degree of familiarity with RNA sequencing concepts. While not exclusively directed to attendees

with bioinformatics training, the majority of the practicals will make use of command-line tools. Therefore some experience with a *nix environment (e.g. Linux or MacOS) and the shell (e.g. Bash) are highly desirable. Some familiarity with R will also be an advantage.

Programme: (<https://www.physalia-courses.org/-courses-workshops/course59c/curriculum59c/>)

Here you can find the full list of our courses and Workshops: (<https://www.physalia-courses.org/courses-workshops/>)

Should you have any questions, please feel free to contact us: info@physalia-courses.org

All the best,

Carlo

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<info@physalia-courses.org>

Online RNAseq 2 Oct19-22 Nov2-5

The University of Connecticut’s Computational Biology Core is offering a workshop on non-model RNA-seq focused on identifying differentially expressed genes using a de novo transcriptome and annotation.

The workshop will cover de novo transcriptome assembly, annotation, including the identification of contaminants, quantification of expression level, exploratory analysis, differential expression analysis and functional enrichment analysis.

The workshop will take place over 4 days for three hours each day.

Dates: November 2 - 5 (4 days)

Time: 9.00am - 12.00pm

Location: Online

Cost: \$300

Workshop schedule

Day 1: Introduction to Linux, High performance computing

Day 2: Basic data QC, Transcriptome assembly and annotation.

Day 3-4 : Expression quantification, exploratory analysis/QC, statistical analysis, functional enrichment.

Registration

To register, please follow this link: <https://forms.gle/-cMJu9VVyfx9LAMzq5> Workshop FAQ

Who should attend?

Anyone who wants to learn the fundamentals of RNA-seq analysis with an ad hoc researcher-generated transcriptome. Prior course participants have included faculty, post docs, grad students, advanced undergraduates, staff, and industry researchers.

What are the prerequisites?

Prior bioinformatic experience is not required. We have dedicated the first day of workshop to the basics of Linux and high performance computing.

What do I need?

You will need your own laptop to use, have a recent version of R, RStudio installed, and some other applications. We will send you details of software and installation instructions with your registration acknowledgement email.

Can I bring my own data?

We will provide experimental datasets for use during the workshop, as this helps to keep the workshop moving. There will be time, however, to discuss your own datasets and how you might work with them outside of the workshop.

How much does it cost?

The registration fee is \$300.

How do I pay?

The fee is due at the time of registration. UConn affiliates can use KFS accounts. The only other means of payment we currently accept is credit card. Due to some complications we cannot accept international wire transfers at this time.

Where is the workshop?

It will be held on Blackboard-Collaborate platform, and will run from 9:00am to 12:00pm on the dates indicated.

How do I apply?

All registration is “first-come, first-served.” There is no application process. Sign up as soon as possible to ensure your place in the workshop.

Questions?

If you have any questions, please don't hesitate to contact us at cbcsupport@uconn.edu

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The University of Connecticut's Computational Biology Core is offering a workshop on RNA-seq focused on identifying differentially expressed genes using an existing reference genome and annotation.

The workshop will cover data quality control, read mapping, quantification of expression, obtaining data from the Ensembl database, exploratory and statistical analysis of expression data and functional enrichment analysis.

The workshop will take place over 4 days for three hours each day.

We still have some spaces left!

Dates: October 19 - 22 (4 days)

Time: 9.00am - 12.00pm

Location: Online

Cost: \$300

Workshop schedule

Day 1: Introduction to Linux, High performance computing

Day 2: QC, mapping, generating count data

Day 3-4 : Exploratory analysis/QC, statistical analysis, functional enrichment.

Registration

To register, please follow this link: <https://forms.gle/-cMJu9VVyfx9LAMzq5> Workshop FAQ

Who should attend?

Anyone who wants to learn the fundamentals of RNA-seq. Prior course participants have included faculty, post docs, grad students, advanced undergraduates, staff, and industry researchers.

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How do I apply?

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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>

TreeCanopy Tools

Have you ever needed to get a leaf for a DNA sample from the top of a tree, without having to climb it and a

slingshot or shotgun was too inaccurate or impossible? How about getting a fruiting specimen for taxonomic study? Would you like to place an insect trap in the canopy to gather insects, spores or other samples for evolutionary study?

The Center for Tree Science at the Morton Arboretum and the Robotics Lab at the Illinois Institute of Technology are planning a virtual workshop on the development and invention of UAV-based tools and sensors for collecting samples from tree canopies, e.g. for DNA analysis or taxonomic study. We invite you to complete this survey to provide us with information about your experiences and needs and to participate in our virtual workshop to be held in Dec 2020.

Link to the survey: <https://www.surveymonkey.com/r/2JN9KK7> Thanks, Chuck Cannon, Director, Center for Tree Science at the Morton Arboretum Matt Spenko, Leader of the Robotics Lab @ IIT

Chuck Cannon, PhD. | Director, Center for Tree Science The Morton Arboretum | 4100 Illinois Route 53 | Lisle, Illinois 60532 T 630-725-2071 | ccannon@mortonarb.org | mortonarb.org

Google Scholar ResearchGate @ruminatus

Chuck Cannon <ccannon@mortonarb.org>

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 EvoDir mailing list please send an email message to Golding@McMaster.CA. Note that ‘on vacation’, etc, style messages are automatically filtered and should not be transmitted to the list (I hope), but should you wish to avoid the e-mail’s your code can be temporarily changed to 000000.

To send messages to the EvoDir direct them to the email `evodir@evol.biology.McMaster.CA`. Do not include encoded attachments and do not send it as Word files, as HTML files, as \LaTeX files, Excel files, etc. . . . plain old ASCII will work great and can be read by everyone. Add a subject header that contains the correct category “Conference:, Graduate position:, Job:, Other:, Postdoc:, Workshop:” and then the message stands a better chance of being correctly parsed. Note that the colon is mandatory.

The message will be stored until the middle of the night (local time). At a predetermined time, the collected messages will be captured and then processed by programs and filters. If the message is caught by one of the filters (e.g. a subject header is not correctly formatted) the message will be 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 \LaTeX do not try to embed \LaTeX or \TeX in your message (or other formats) since my program will strip these from the message.