
E v o l D i r

January 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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Brisbane QuantitativeGenetics Jun14-19

International Conference of Quantitative Genetics, Brisbane, 14-19 June 2020

We were delighted with the response to the call for oral abstracts. We have put together a great program that gets to the heart of some of the core issues in quantitative genetics (QG) of the 21st century.

* We have a session on epistasis 'V perhaps the most confused and confusing topic in QG. Led by theory from Nick Barton <<https://icqg6.org/invited-speakers/nick-barton/>>, with contributed talks from plant, livestock and human applications, followed by what we expect to be a lively panel discussion. * We have several sessions on the thorny topic of genotype by environment interaction, genotype by environment correlation and the genetic control of environmental variance. Looking at the same problem from the perspective of different organisms can help reveal differ-

ent ways of approaching data collection and analysis. Several of our invited speakers will be addressing this topic in different ways 'V from wild birds by Anne Charmantier <<https://icqg6.org/invited-speakers/anne-charmantier/>>, livestock by Han Mulder <<https://icqg6.org/invited-speakers/han-mulder/>>, crops by several contributed talks. * While genetic risk prediction of common disease is a new hot topic in human genetics, the methods are firmly grounded in quantitative genetics of livestock and crops. We have speakers using the big data sets of humans, such as Albert Tenesa <<https://icqg6.org/invited-speakers/albert-tenesa/>> using UK Biobank and Yaniv Ehrlich <<https://icqg6.org/invited-speakers/yaniv-erlich/>> from MyHeritage, and applications of genomic prediction to crops- Susanne Dreisacker <<https://icqg6.org/invited-speakers/susanne-dreisigacker/>>, Jessica Rutkowski <<https://icqg6.org/invited-speakers/jessica-rutkoski/>>, trees 'V Satish Kumar <<https://icqg6.org/invited-speakers/satish-kumar/>>and livestock, Lucia Galvao de Albuquerque <<https://icqg6.org/invited-speakers/lucia-galvao-de-albuquerque/>>, Rachel Hawken <<https://icqg6.org/invited-speakers/rachel-hawken/>> * The application of QG of gene expression of bulk tissue and single cells has exploded since ICQG5, and we have several speakers

addressing different angles of these new data, Barbara Stranger <<https://icqg6.org/invited-speakers/barbara-stranger/>>, Shamil Sunyaev <<https://icqg6.org/invited-speakers/shamil-sunyaev/>>, Ed Buckler <<https://icqg6.org/invited-speakers/ed-buckler/>>, Steve McCarroll <<https://icqg6.org/invited-speakers/steve-mccarroll/>>, Daniel Gaffney <<https://icqg6.org/invited-speakers/daniel-gaffney/>>. * QG theory is founded in understanding generated from model systems and understanding selection in the wild. New technologies have allowed new approaches and so we will hear the latest results from David Houle <<https://icqg6.org/invited-speakers/david-houle/>>, Jarrod Hadfield <<https://icqg6.org/invited-speakers/jarrod-hadfield/>> and Trudy Mackay <<https://icqg6.org/invited-speakers/trudy-mackay/>>. * Methods contribute to all applications of QG and new ideas will be presented by Jian Yang <<https://icqg6.org/invited-speakers/jian-yang/>>, Matthew Stephens <<https://icqg6.org/invited-speakers/matthew-stephens/>>, Peter Visscher, Theo Meuwissen <<https://icqg6.org/invited-speakers/theo->

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Budapest MathStatMolBio Apr18-19

The 30th Workshop on Mathematical and Statistical Aspects of Molecular Biology (MASAMB) will be held in Budapest on April 18 and 19, 2020.

Registration opens early 2020. For details see <http://masamb2020.elte.hu> and below.

Bioinformatics and statistical genetics, twin themes of the long-running series of annual MASAMB meetings, have gained huge impetus from large-scale genome sequencing projects and development of high-throughput biological assay systems, including gene-expression, proteomic, metabolomic and single-cell genomics technologies. These immense data resources, and the underlying complexities of molecular and cell biology, provide exciting research opportunities for numerate scientists.

With typically around 80-120 participants from mathematics, statistics, computer science, bioinformatics, biol-

ogy and related fields, the MASAMB meetings provide an intimate setting for exchanging ideas in methodological and applied research. Research students and scientists newly entering the field of genomic research are particularly welcome and encouraged to submit abstracts. Details of previous meetings are available at the MASAMB archive: <https://www.ebi.ac.uk/goldman-srv/masamb/> sszolo@gmail.com

Helsinki GenomicBiomonitoringInsects Jul19-24

We would like to invite submissions to our symposium entitled *Genomic tools for biomonitoring of insects*, held during the International Congress of Entomology (ICE 2020) on Wednesday the 22nd July 2020 in Helsinki, Finland,

How landscape-scale disturbances affect insect diversity remains poorly known. The lack of data is in part due to the fact that traditional biomonitoring schemes are too labour intensive and costly to handle large amounts of samples and taxa. The development of high-throughput sequencing allows the detection of insects from bulk samples. The underlying techniques are advancing rapidly, and refinements are being made constantly to improve efficiency and reduce error. Talks will provide an overview of the current and future applications of new molecular technologies in insect biomonitoring.

Topics of interest include:

- Biomonitoring of terrestrial and aquatic insects using metabarcoding and mitogenomics.
- Metabarcoding of bulk samples from mass trapping (Malaise, interception traps\$B!D(B)
- eDNA
- Metabarcoding of ethanol-preserved samples
- PCR-free approaches
- Estimation of changes in species-abundance from metabarcoding data

If you are interested or have any questions, please feel free to contact us:

Carlos Lopez-Vaamonde (Carlos.lopezvaamonde@inra.fr) and Michael T. Monaghan (monaghan@igb-berlin.de)

Abstract submissions to the symposium can be submit-

ted using this link:

https://submit.peeraeofscience.org/conference/-ICE_2020/109743 More information about the conference can be found here:

<https://ice2020helsinki.fi/> - *Lucas Sire*

Lucas Sire <lucas.sire.17@gmail.com>

Ireland EvolBiolStudents Apr19-24

26 European Meeting of Students in Evolutionary Biology - the abstract submission is opened since the 1st of December! EMPSEB26 will be held in Killarney, Ireland. We invite all students to present their past or ongoing research, discuss other projects and to take part in plenary talks with our guests. The deadline for abstract submission is on the 24th of January. For more details, check our webpage (<https://sites.google.com/view/empseb26/>) and Twitter account (@EMPSEB26). If you have any question, feel free to e-mail us: empseb26@gmail.com This Ph.D. meeting is organized by and dedicated to Ph.D. students studying Evolutionary Biology from across Europe although participants from other countries are also welcome. Thus, it provides a platform for students to present their work and meet their peers from different countries. Along with the participants, 6 key speakers working on influential Evolutionary Biology topics are invited to present their work.

Louise Fouqueau <louisefouqueau@gmail.com>

LakeArrowhead California HumanVirusEvolution May10-13

27th International Dynamics & Evolution of HIV and Other Human Viruses

May 10-13, 2020

Lake Arrowhead, California

Call for Abstracts

Deadline: January 15, 2020

Submit yours today <https://cme.ucsd.edu/-hivdynamics/abstracts.html> The 27th International

Dynamics & Evolution of HIV and Other Human Viruses conference will be held May 10-13, 2020 at the Lake Arrowhead Resort & Spa in Lake Arrowhead, California.

This meeting series was designed to promote discussion between specialists in quantitative and computational approaches in two areas in the field of HIV where these are particularly important:

>> Modeling of viral and cellular dynamics

>> Viral evolution and population genetics

These approaches are increasingly applied to viruses other than HIV, so beginning this year, we encourage the submission of abstracts relating to work on other human viruses. We welcome submissions on all topics on statistical, mathematical, and computational approaches to analyzing the dynamics and evolution of human viruses.

Abstracts are being accepted for the following topics:

>> Origins & Evolution

>> Transmission Dynamics & Transmission Clusters

>> Between Host Evolution & Epidemiology

>> Within-Host Dynamics & Modeling

>> Software & Methods

>> Immunology & Vaccines

>> Antiviral-Treatment & PrEP

>> HIV-Latency & Reservoirs

>> Outbreaks

To promote interaction and discussion, attendance is limited to 130 persons. In the event of over subscription delegates submitting abstracts will be given precedence.

We actively encourage participation by members of minority groups.

Register online at <https://cme.ucsd.edu/hivdynamics/-registration.html>

LOCATION AND ACCOMMODATIONS

Lake Arrowhead Resort & Spa

Lake Arrowhead 27984 CA-189

Lake Arrowhead, CA 92352

Phone: +1-909-336-1511

Hotel information: https://-www.lakearrowheadresort.com/-about_lake_arrowhead_resort/

Directions: https://-www.lakearrowheadresort.com/location_directions/

Located in San Bernardino National Forest and offering

picturesque views of the lake and mountains, this hotel features a full service spa, restaurant/bar, outdoor pool, hot tub, a private beach and a dock to fish from. It is just steps away from numerous hiking trails as well as dining and shopping at the Lake Arrowhead Village.

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Website: <http://cme.ucsd.edu> Content is subject to change without notice. Please refer to the activity website for the most current information.

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Leipzig Germany TropicalEcolEvolution Mar24-27

Dearcolleagues,

Leipzig University will host the 2020Annual Meeting of the Society for Tropical Ecology (gtö) and the EuropeanConference of Tropical Ecology.

The annual conference of the Society forTropical Ecology (gtö) will provide an interdisciplinary platform for discussing major challenges and future opportunities in tropical ecology andevolution, including:

- Understanding tropical biodiversity at all spatial and taxonomical scales - Defining resilient tropical ecosys-

tems - Novel approaches to understand and manage tropical ecosystems - Conservation and restoration of tropical ecosystems

Date: March 24-27, 2020

Venue: Augusteum, Campus Augustusplatz (Leipzig city centre), Germany

The call for talks and posters is now OPEN. Submissions for talks and posterswill be accepted until 16 January 2020.

For further information, please visit: <http://www.soctropecol-conference.eu> Best wishes & hoping to see you there! Alexandra Muellner-Riehl (UL, iDiv) & Andreas Huth (UFZ, iDiv) 2020 chairs

muellner_alexandra@yahoo.de

Marseilles EvolutionaryBiology Sep22-25

Dear all : the Early registration dead line , for the next Evolutionary Biology Meeting in Marseilles , is January 31 2020. The congress will take place from September 22nd to 25th

more info web : aeeb.fr twitter :EvolBiolMeetingMarseilles

best regards

Pierre

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

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

Montpellier MathAndCompEvolutionaryBiol Jun1-5

PLEASE FORWARD THIS ANNOUNCEMENT!

MCEB - Mathematical and Computational Evolutionary Biology - 2020, June 1-5th

Hameau de l'Etoile, Montpellier, South of France

Webpage: <http://www.lirmm.fr/mceb2020/> Pre-

registration and abstract submission deadline: 2020 March 2nd
 Notification to applicants: 2020 March 23rd
 Final list of attendees: 2020 April 15th

Scope: Mathematical and computational tools and concepts form an essential basis for modern evolutionary studies. The goal of the MCEB conference (at its 12th edition) is to bring together scientists with diverse backgrounds to present recent advances and discuss open problems in the field of mathematical and computational evolutionary biology. The theme of this year's edition will be on "Climate Changes and their Impacts on Evolution", in particular the preservation of biodiversity, the conservation of species, the study of ecosystems and their dynamics, and the reconstruction of major past changes of climate and living conditions on Earth. All speakers will be kindly asked to say a few words (or a full talk!) on these crucial questions and how they interfere with their own research. Moreover, special attention will be given to Machine Learning approaches, which should be key in the development of complex models and the analysis of big data sets. General concepts, models, methods and algorithms will also be presented and discussed, just as during the previous conference editions.

Where and when: Hameau de l'Etoile, near Montpellier, in the South of France,

June 1-5, 2020. The conference will begin Monday evening with an aperitif and dinner, and will end at about 2pm on Friday.

Cost: around 500 euro (includes accommodation for four nights, meals, coffee breaks, bus shuttle service, etc.).

Keynote speakers:

- * Bastien Boussau (Laboratoire de Biométrie et Biologie Evolutive, CNRS, Lyon, FR) <https://lbbe.univ-lyon1.fr/-Boussau-Bastien-.html> Adaptation of grasses to climate change: past and present
 - * Lounes Chikhi (Instituto Gulbenkian, Lisboa, and CNRS, Toulouse, FR) <http://www.igc.gulbenkian.pt/-lchikhi> Population and Conservation Genetics
 - * Christophe Dessimoz (University of Lausanne, CH) <https://lab.dessimoz.org/people/christophe-dessimoz> The Quest for Orthologs
 - * Simon Gravel (Mc Gill University, Montreal, CA) <http://simongravel.lab.mcgill.ca/research.html> Population Genetics and Genomics
 - * Michel Milinkovitch (Université de Genève, CH) <https://www.lanevol.org/> Convergent evolution of pattern formation
 - * Ophélie Ronce (ISEM, Montpellier, FR) <http://www.isem.univ-montp2.fr/en/personnel/teams/-metapopulation/ronce-ophelie.index/> Evolutionary and Demographic Dynamics
 - * Tandy Warnow (University of Illinois, USA) <http://tandy.cs.illinois.edu/> Large Scale Phylogenomic Estimation
- For more information and online registration: <http://www.lirmm.fr/mceb2020/> PLEASE FORWARD THIS ANNOUNCEMENT!
- Olivier GASCUEL <olivier.gascuel@pasteur.fr>

Novosibirsk Bioinformatics Jul6-10

The 12th International Multiconference on "Bioinformatics of Genome Regulation and Structure/Systems Biology" V BGRS/SB-2020 will be held by ICG SB RAS on 06-10 of July 2020 in Novosibirsk, Russia: <https://bgrssb.icgbio.ru/2020/> INFO LETTER-http://bit.ly/bgrssb2020_info Multiconference will include the following research areas:

- * "Genomics, transcriptomics and bioinformatics"
- * "Systems Computational Biology"
- * "Structural biology and Computational pharmacology"
- * "Evolutionary bioinformatics: experimental and computer approaches"
- * "Development Biology: experimental and computer approaches"
- * "Biotechnologies: experimental and computer approaches"
- * "Genetics, Bioinformatics and systems biology of plants"
- * "Cognitive sciences"
- * "Systems biology and biomedicine"
- * "Biodiversity: genomics and evolution"
- * "Mathematical modeling and high-performance computing in life sciences"
- * "Systems biology and bioinformatics of DNA repair processes and programmed cell death"
- * "Systems Biology of Aging"
- * "Animal Genetics"
- * "Organization of education process for basic research"

in the field of bioinformatics, genetics and other natural sciences“

Last date of registration on the website with preliminary title of the abstract for the conference BGRS/SB-2020 'V February 1, 2020

Chairman of the multiconference program committee: Academician of the Russian Academy of Sciences Nikolay Kolchanov. Yours faithfully, Conference Organizing Committee BGRS/SB-2020 Website of BGRS/SB-2020 :<https://bgrssb.icgbio.ru/2020/> BGRSSB2020 Organizing Committee <bgrs2020@bionet.nsc.ru>

QubecCity SMBE Jun28-Jul2

We are delighted to announce that registration for SMBE 2020 is now live. SMBE 2020 is taking place in Québec city, QC, Canada on June 28th-July 2nd 2020 at the Québec Convention Center. Full details on the symposia programme and confirmed keynote speakers can be viewed here (<http://smbe2020.org/>).

Information on the registration fees can be viewed at <http://smbe2020.org/registration/>. Register before the early bird deadline on April 1st, 2020 in order to secure discounted registration rates.

Please note that in order to receive a discounted member-rate registration you will be asked to provide your SMBE member number. Active members were sent an email that includes their membership number.

You can book your accommodation from a range of city centre properties from inside the registration system.

As always SMBE are keen to ensure good international representation. Support will be provided to all delegates that may require additional documentation in order to secure a visa to Canada. Please click here < <http://visahq.com/> > (https://www.visahq.com/?utm_expId=.I4PCY3s_RnSLjDo08lb45g.0&utm_referrer=) to check if you require a visa for Canada. You can request support for your Visa application within the registration portal. Select the Visa application support letter and submit the required details. You will then receive a covering letter confirming your attendance at SMBE 2020.

Childcare facility will be provided on-site for SMBE 2020 delegates. During the registration process please advise whether you would like to make use of the facility and add details on the age of your child. Further details

will be shared on the facility nearer the time.

Attendees can apply for Carer Awards < <https://www.smbe.org/smbe/AWARDS/-AnnualMeetingTravelAwards/CarerTravelAward.aspx> > as part of conference registration rather than abstract submission, or by email to smbe.contact@gmail.com if an earlier response is needed. SMBE will make available up to \$2000 to SMBE members with children or dependent adults (including adult children with a disability or elderly relatives) to spend as they wish to facilitate the member's attendance at the annual SMBE meeting. Examples of eligible expenses include (but are not limited to) providing airfare for your child or for your caregiver to accompany you, flying a relative out to help with care at your home while you're at the meeting, or extra help paying for on-site daycare. All other awards can be applied for during the Abstract submission portal

Abstract and Award submission deadline.

The abstract submission deadline is fast approaching. The deadline for abstracts is 20th January 2020 23:59 GMT. Please be aware that the deadline will not be extended. Abstracts should be no longer than 2500 characters (~250 words), with a title no longer than 300 characters. Full details on abstract topics, guidance and the submission portal can be found here < <https://t.e2ma.net/click/prtoy/5fbjil/dujlbjg> >.

A range of awards can be applied for during Abstract submission, all of which require SMBE membership (costing only \$10/\$30 for 3 years for students/others at <https://www.smbe.org/smbe/MEMBERSHIP.aspx> < <https://t.e2ma.net/click/prtoy/5fbjil/tmklbg> >) at the time of application.

Current graduate students and postdoctoral researchers who received their primary doctoral-level degree no earlier than one year prior to the start of the annual meeting of the society may apply for the Fitch award < <https://t.e2ma.net/click/prtoy/5fbjil/9ellbg> >. Extended abstracts are no longer required this year, just the conference abstract and a cv. Unsuccessful Fitch applicants will automatically be considered for Young Investigator and Registration awards.

Any graduate student or postdoc may apply for the Young Investigator Award < <https://t.e2ma.net/click/-prtoy/5fbjil/p7llbg> >, which substantially funds the cost of attending. Application materials are the same as for the Fitch, i.e. abstract and cv. Unsuccessful applicants for both will automatically be considered for Registration-only awards.

Undergraduates (including Masters students under a 3+2 system) can apply for the Undergraduate Travel &

Mentoring award

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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>

QuebecCity SMBE Jun28-Jul2 CallForAbstracts

Dear SMBE members,

We invite you to submit an abstract for the 2020 annual conference of the Society for Molecular Biology and Evolution (SMBE 2020) at <http://smbe2020.org/abstracts/abstract-submission/>. SMBE 2020 is taking place in Québec City, Canada, from 28 June to 2 July 2020.

The deadline for abstract submission is Monday 20 January 2020, 23:59 (GMT).

Several awards are available and can be applied for during abstract submission. They require SMBE membership at the time of application (3 years costs \$10 for students and \$30 for others).

Membership can be applied for at <https://www.smbe.org/smbe/MEMBERSHIP.aspx>. Carer awards can also be applied for at registration or by email.

Awards include:

1) The Walter M. Fitch Award for current graduate and recent postdoctoral researchers; Extended abstracts are not required, just the conference abstract and a CV. Unsuccessful Fitch Award applicants will automatically be considered for Young Investigator and Registration-only awards.

2) The Young Investigator Award substantially funds the cost of attending, is for any graduate student or postdoc, requires a conference abstract and a CV, and will automatically also be considered for Registration-only awards.

3) The Undergraduate Travel & Mentoring Award (including Masters students under a 3+2 system) requires title, abstract, a short explanation (250 words) of why you want to attend this meeting, including a mention of whether you fall into a group traditionally underrepresented at SMBE such as enrolling in university

later in life or being the first in your family to attend university. A short letter of support (250 words) should also be sent from your academic supervisor to Sarah Schaack and Mary O'Connell (SMBE.contact@gmail.com) confirming that you are undergraduate or a Masters student under 3+2, and that the research to be presented is your own.

4) Carer Travel Awards can be applied for during registration, or by email to smbe2020@mci-group.com if an earlier response is needed. Up to \$2000 may be awarded for members with children or dependent adults (including adult children with a disability or elderly relatives) to spend as to facilitate member's attendance at the annual SMBE meeting. Examples of eligible expenses include (but are not limited to) providing airfare for your child or for your caregiver to accompany you, flying a relative out to help with care at your home while you're at the meeting, or extra help paying for on-site daycare.

If interested in sponsorship of the meeting, please contact SMBE2020@mci-group.com. For any queries over abstracts or registration, please contact SMBE2020@mci-group.com.

We look forward to welcoming you in Québec City.

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

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Undergraduates (including Masters students under a 3+2 system) can apply for the Undergraduate Travel & Mentoring award < <https://t.e2ma.net/click/prtoy/5fbjil/5zmlbg> >. In addition to presentation title and abstract, this requires a short explanation of why you want to attend this meeting, including mention of whether you fall into a group

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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>

Roros Norway EvoDemo7 Apr15-19

Dear all,

The deadlines for the Evolutionary Demography Society's 7th Annual Meeting in Røros, Norway, have been extended.

Abstract submission: Thursday 12th of December 2019
Early bird registration: Sunday 15th of December 2019

Register at <https://evodemo7.weebly.com/> We hope that gives everyone just enough time to make any final preparations to attend. We look forward to seeing all of you there!

Best regards, EvoDemo7 organizing committee 15-19 April 2020

If you have any questions, please email evodemo7@bio.ntnu.no

“Stefan J.G. Vriend” <stefan.vriend@ntnu.no>

Spain Conservation Genetics Jan27-31

Places left!

**** deadline for financial aid extended to Thursday Dec 12 **** Priority will be given to participants from countries in the tropics

Many conservation genetics tools have been developed for use in temperate other high latitude habitats, and so not all of these tools translate to the tropics. Tropical habitats share some features which complicate the application of some conservation genetics tools which are heavily relied upon in higher latitudes, and also share some basic questions and problems that are less of an issue in higher latitudes or other, better studies and/ or less diverse habitats.

This course will discuss practical issues, genetic and genomic theory, tools and analyses as applied to issues relevant to conservation in the tropics. Some basic questions of conservation importance include describing species diversity, determining species distributions, characterizing the basic biology of species, and understanding demographic history and population size and structure. Underlying biogeographic histories that have shaped communities, and the biotic interactions within those communities are also of fundamental importance. There is an optional, personalized conservation genetics project immediately following the lecture and computer practical week.

This course is designed with students and practitioners of Conservation Biology or Conservation Genetics in the tropical regions of America, Africa and Asia in mind.

This course will take place January 27-31, 2020 in the Biological Reserve of Doñana (Spain).

For more information, check out the website:

<https://www.consevol.org/consgentropicscourse.htm>

– consevol.org

Jennifer Leonard <jleonard@ebd.csic.es>

Tavira Portugal Marine Evolution2 Oct12-15

Marine Evolution 2 12-15th October, 2020 Hotel Vila Galé Albacora, Tavira, PORTUGAL

The organizing committee of the Centre for Marine Sciences and the University of Algarve are pleased announce the second international conference on Marine Evolutionary Biology. MARINE EVOLUTION 2 invites all students and researchers in the field to participate in a conference over three days, consisting of plenary presentations, keynote speakers and concurrent sessions on a broad range of relevant topics.

The meeting will take place in the Hotel Vila Galé Albacora, a restored tuna fishing camp set in the Natural Park of Ria Formosa near the pretty coastal city of Tavira, amongst salt flats renowned by bird watchers and with close access to the long sandy beaches of the neighbouring barrier islands. In keeping with the tradition of this meeting, we plan exciting science mixed with discussion against a relaxing and beautiful backdrop. Mark this page (<https://ccmar.uaalg.pt/en/page/marine-evolution-2>) and your calendars!!

With regards from the organizing committee marineevolution2020@gmail.com

Gareth Pearson Rita Castilho Regina Cunha Andrea Pinto Adelino Canário

marineevolution2020@gmail.com

Toulouse France Biomolecular Archaeology Sep22-25

Dear colleagues,

The* 9th International Symposium of Biomolecular Archaeology *will be held in *Toulouse, France* on *Sept 22-25th*.

Beware that the *early bird registration deadline* is set on *Jan 31st*. It will be of course possible to register after that date and until the event is fully booked, but for an extra 60 euros.

Please don't miss the *submission deadline for *your abstracts on *May 31st*. There will be room for 160 posters and 108 talks.

The conference website provides all necessary details about the event, plenary speakers, organizing and scientific committees, and more.

<https://isba9.sciencesconf.org/> Please note that we have negotiated an up to 15% discount on plane tickets for companies members of the SkyTeam alliance. This includes AirFrance, KLM and many others.

Looking forward to seeing you next September in Toulouse.

The ISBA9 organizing committee <https://isba9.sciencesconf.org/resource/page/id/17> Clio Der Sarkissian <clio.dersarkissian@gmail.com>

UMichigan NatHistoryCollections Mar13-15

CALL FOR NOMINATIONS 16TH ANNUAL EARLY CAREER SCIENTISTS SYMPOSIUM

-Natural History Collections: Drivers of Innovation-

The Department of Ecology and Evolutionary Biology at the University of Michigan invites nominations of outstanding scientists early in their careers to participate in an exciting symposium about innovative and unconventional uses of biological collections across scientific disciplines. The symposium events will take place 13-15 March 2020, on the campus of the University of Michigan in Ann Arbor.

Eight early career scientists will be selected to present their work and generate intriguing discussions at the 2020 ECSS symposium. In addition, two keynote speakers will be featured in the symposium. We welcome nominations of early career scientists who study and utilize natural history collections in new and potentially unexpected ways. We envision this symposium as a way to showcase the often-unrealized opportunities and non-traditional avenues of research that museum collections make possible to the entire scientific community, and emphasize some of the interdisciplinary ways in which collections are being or could be used. We hope to foster a broader understanding and expanded use of the incomparable resource that is a biological collection. This symposium aims to highlight the work of up-and-coming scientists whose research interests span

a breadth of disciplines in collections work including but not limited to: comparative genomics, bioengineering, climate change, historical pathogen dynamics, and many, many more. We both advocate for and champion diversity and strongly encourage the nomination of members from groups traditionally underrepresented in science.

Early career scientists are considered senior graduate students (who stand to receive their Ph.D. within one year), postdoctoral researchers, and first- or second-year faculty. A colleague or advisor must provide the nomination.

Nomination materials must include a brief letter of recommendation addressing the nominee's scientific promise and ability to give a compelling talk, nominee's curriculum vitae, and a brief abstract of the proposed presentation (< 200 words, written by the nominee).

Nominations should be sent electronically as a single PDF file to ecss-2020@umich.edu using the subject line format, "nominee's Last Name, First Name ECSS 2020 Nomination".

Review of nominations will begin on January 7, 2020.

Selected participants will be contacted in mid-January and will have all expenses covered (registration, travel, and accommodation). An official announcement of the slate of speakers will be issued soon thereafter.

Information about Early Career Scientist Symposia held in past years can be found at <http://sites.lsa.umich.edu/ecss/>. For more information, please contact Linda Garcia at garciall@umich.edu.

The 2020 Early Career Scientists Symposium scientific committee includes:

Jenna Crowe-Riddell Sonal Gupta Hernán López-Fernandez, chair Benjamin Nicholas Teresa Pegan Brad Ruhfel Cody Thompson Taylor West

Cody Thompson <cwthompson@umich.edu>

WashingtonDC EvolutionaryNeuroscience Oct22

We are now accepting submissions of Karger Workshop Proposals. The Karger Workshop is a one-day symposium on a specific topic in comparative or evolutionary neurobiology, organized by one or more members of the

J. B. Johnston Club and sponsored by S. Karger AG. Proposals are due *FEBRUARY 1st, 2020. *

The 2020 Karger Workshop will be held at the Crystal City Marriott < <https://www.marriott.com/hotels/-travel/wascc-crystal-city-marriott-at-reagan-national-airport/> >, in Washington DC on Thursday, October 22nd, 2020. The Karger Workshop will precede the regular annual meeting of the JBJC, which will be held on Friday, October 23rd. These meetings are held in conjunction with the annual SFN meetings.

If you'd like to submit a proposal: please visit the following link: <https://www.jbjclub.org/-karger-workshop.html> Christine Charvet <charvetcj@gmail.com>

WashingtonDC PopGenetics Apr22-26 DeadlineDec13

The abstract deadline for Population, Evolutionary, and Quantitative Genetics (PEQG) 2020 has been extended to December 13.

PEQG will be held in the Metro Washington DC area at The Allied Genetics Conference (TAGC), April 22-V26, 2020. If you miss TAGC you will not have a chance to attend PEQG until 2022.

<https://genetics-gsa.org/peqg-2020/> PEQG PROGRAM COMMITTEE Hopi Hoekstra, Harvard University (Co-Chair) Dmitri Petrov, Stanford University (Co-Chair) Patrick Phillips, University of Oregon (Co-Chair)

Ed Buckler, USDA-ARS/Cornell University Catherine Linnen, University of Kentucky Harmit Malik, Fred Hutchinson Cancer Institute Sally Otto, University of British Columbia Bret Payseur, University of Wisconsin, Madison Sohini Ramachandran, Brown University Jeffrey Ross-Ibarra, University of California, Davis Paul Turner, Yale University

PEQG INVITED SPEAKERS/SESSION CHAIRS Kelley Harris, University of Washington Molly Schumer, Stanford University Felicity Jones, Friedrich Miescher Laboratory of the Max Planck Society Emily B. Josephs, Michigan State University Daniel Matute, University of North Carolina at Chapel Hill C. Brandon Ogbunu, Brown University

ABSTRACT CATEGORIES

Evolutionary and Population Genetics: Adaptation

and natural selection Speciation Experimental evolution Comparative genomics Phylogenetics and biogeography Population history Ecological genetics Response to climate change

Quantitative Genetics: Gene-environment interactions Gene-gene interaction (epistasis) Genomic selection/prediction Complex trait genetics Statistical genetics methods

WHAT IS TAGC? TAGC is a unique conference designed to foster collaboration and inspire fresh thinking. Seven research communities will come together at TAGC for a combination of Community Sessions and cross-community Thematic Sessions. PEQG attendees will join the C. elegans, Drosophila, mammalian genetics, Xenopus, yeast, and zebrafish research communities'Xalong with those researching humans, plants, and agricultural species.

Catch up with colleagues at the opening night PEQG mixer and at designated community meeting spots throughout the meeting. We'll make it easy to spot PEQG people, posters, and sessions via signage and badges.

APPLY FOR THE JAMES F. CROW EARLY CAREER RESEARCHER AWARD GSA presents the James F. Crow Early Career Researcher Award to students and recent PhDs conducting population, evolutionary, or quantitative genetics research. Finalists for the Crow Award will present their research in a high-profile PEQG session. Applications are due by December 13, 2019

CGelling@genetics-gsa.org

Wellcome UK EvolutionarySystemsBiol Feb12-14

Evolutionary Systems Biology 12 - 14 February 2020 Wellcome Genome Campus, UK

Final Call for Abstracts - Due 3 December !

Important deadlines -

Deadlines: Abstracts 03 December 2019 | Registration: 14 January 2020

Final abstracts are invited for Evolutionary Systems Biology 2020. Submit by 3 December. The conference will be of particular interest to those working at the interface of evolution, quantitative genetics, and systems

biology.

This conference will explore the evolution of biological systems at different levels: from genes and molecules to organism development and physiology. Particular emphasis will be placed on understanding evolution through mechanistic biology. We will explore recent advances in experimental and theoretical approaches to study how genetic and non-genetic changes fuel and constrain evolution

Topics will include:

-Transcriptional regulation -Cellular diversity -
Computational networks -Evo-devo -Single cell analysis
-Evolution of fitness landscapes

Scientific programme committee:

Angela Hay Max Planck Institute, Germany

Mark Siegal New York University, USA

Olivier Tenaillon INSERM France

Trisha Wittkopp University of Michigan, USA

Keynote speakers Eileen Furlong EMBL, Germany

Enrico Coen John Innes Centre, UK

Confirmed speakers: Nathalie Balaban - The Hebrew University of Jerusalem, Israel Justin Crocker - EMBL, Germany Emma Farley - UC San Diego, USA Marie-Anne Felix - IBENS, France Veronica Hinman - Carnegie Mellon University, USA Tuuli Lappalainen - Columbia University, USA Ben Lehner - Centre for Genomic Regulation, Spain Marie Manceau - Center for Interdisciplinary Research in Biology, France Heather Marlow -

Pasteur Institute, France Inigo Martincorena - Wellcome Sanger Institute, UK Phillippe Nghe - PSL Research University, France Csaba Pal - Biological Research Centre of the Hungarian Academy of Science, Hungary Dmitri Petrov - Stanford University, USA Oliver Stegle - EMBL, Germany

For full details - visit: <https://coursesandconferences.wellcomegenomecampus.org/our-events/evolutionary-systems-biology-2020/> Tresa Creavin (email: tresa.creavin@wellcomegenomecampus.org)

Dr Tresa Creavin Scientific Programme Manager

Tel: 0044 (0)1223 495108 Wellcome Genome Campus Advanced Courses and Scientific Conferences | Wellcome Genome Campus | Hinxton | Cambridgeshire | CB10 1RQ | UK wellcomegenomecampus.org/coursesandconference

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Tresa Creavin <tresa.creavin@wellcomegenomecampus.org>

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AustralianNatIU Canberra PhylogenomicInference

A PhD position is available in the lab of Dr. Minh Bui (<https://researchers.anu.edu.au/researchers/bui-m>) at the Research School of Computer Science, Australian National University (ANU). We are looking for a highly motivated student, who will work on the next generation of models and methods for phylogenetic analysis in the genomic era. There are a large number of potential directions that the research could take, and the details will depend on your interests and experience. Potential directions include: developing efficient algorithms for tree search; new approaches to phylogenetic model selection; co-estimating multiple trees. The student will implement new models and methods in the widely used IQ-TREE software (<http://www.iqtree.org>).

The ANU campus is situated in the heart of Australia's capital city, Canberra, which is ranked as the third best city in the world according to Lonely Planet (2018) and is Australia's most liveable city (Life in Australia Report 2019). The ANU has an international reputation for research excellence and is ranked among the best universities in the world (QS World University Ranking 2019).

Candidates: ANU scholarships are highly competitive, and cover all fees and a ~\$27K stipend. In order to be put forward, you will need outstanding undergraduate marks and a first class honours or Masters by research (or be expecting to gain one by the middle of 2020) or equivalent research experience.

Top apply, please send to [m.bui \(at\) anu.edu.au](mailto:m.bui@anu.edu.au) a detailed CV, full academic transcripts, and a brief description of your research interests and how they intersect with this project. The deadline is January 31st, 2020.

m.bui@anu.edu.au

BielefeldU ModelingEvolution

PhD position in Theoretical Biology at Bielefeld University, Germany (application deadline: January 6, 2020)

Dear evoldir community,

I am excited to announce that a PhD position to develop simulation models for intraspecific plant chemodiversity, from biosynthetic pathways to ecological consequences is available in the Theoretical Biology group at Bielefeld University (PI Meike Wittmann), starting in spring 2020 (preferred starting date April 1). Using our models, we will explore why plants evolved such a large number of metabolites and why different individuals in the population have different sets of metabolites. The position will be available for three years and funded by the German Research Foundation (DFG) within the research unit FOR 3000 entitled Ecology and Evolution of Intraspecific Plant Chemodiversity.

- Research tasks (95 %): * Development of eco-evolutionary models for intraspecific chemodiversity * Implementation in C++ and R * Simulation studies * Collaboration with empirical groups for the development of “virtual plants” (simulation models fine-tuned for each of the study organisms in the research group) * Literature and database research * Data analysis * Writing scientific publications

- Organizational tasks in the research group (5 %)

We expect - university degree (by start of position) in a relevant scientific discipline, e.g. biology, mathematics, physics, or bioinformatics - programming skills in at least one language - excellent command of scientific English (spoken and written) - motivation and communication skills to work as part of an interdisciplinary collaborative team

Preferable qualifications - programming skills in C++ and R - experience with mathematical modeling - working knowledge of ecology, evolution and biochemistry

Remuneration Salary will be paid according to Remuneration level 13 of the Wage Agreement for Public Service in the Federal States (TV-L). As stipulated in § 2 (1) paragraph 1 of the WissZeitVG (fixed-term employment), the contract will end on March 31, 2023. In accordance with the provisions of the WissZeitVG and the Agreement on Satisfactory Conditions of Employ-

ment, the length of contract may differ in individual cases. The employment is designed to encourage further academic qualification. The position is advertised as 65 % part-time job. In individual cases, this percentage may be reduced on request, as long as this does not conflict with official needs. Bielefeld University is particularly committed to equal opportunities and the career development of its employees. It offers attractive internal and external training and further training programmes. Employees have the opportunity to use a variety of health, counselling, and prevention programmes. Bielefeld University places great importance on a work-family balance for all its employees.

Application Procedure For full consideration, your application (cover letter detailing your motivation and relevant experiences, CV, copies of certificates, and contact details for at least one reference) should be received via either post (see postal address below) or email (a single PDF document) sent to meike.wittmann@uni-bielefeld.de <meike.wittmann@uni-bielefeld.de> by the 6th of January 2020. Please mark your application with the identification code: wiss19279.*

Please do not use application portfolios and send only photocopies of original documents because all application materials will be destroyed at the end of the selection procedure. Further information on Bielefeld University can be found on our homepage at www.uni-bielefeld.de. Please note that the possibility of privacy breaches and unauthorized access by third parties cannot be excluded when communicating via unencrypted e-mail. Information on the processing of personal data is available https://www.uni-bielefeld.de/Universitaet/Aktuelles/-Stellenausschreibungen/2019_DS-Hinweise_englisch.pdf. Bielefeld University has received a number of awards for its achievements in the provision of equal opportunity and has been recognized as a family friendly university. The University welcomes applications from women. This is particularly true with regard both to academic and technical posts as well as positions in Information Technology and Trades and Craft. Applications are handled according to the provisions of the state equal opportunity statutes. Applications from suitably qualified handicapped and severely handicapped persons are explicitly encouraged.

Jun.-Prof. Dr. Meike Wittmann Phone: +49 521 106-67627 Email: meike.wittmann@uni-bielefeld.de
 Web: <https://www.uni-bielefeld.de/biologie/-theoreticalbiology/> Postal Address Universität Bielefeld Faculty of Biology

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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>

CBGP Madrid MicrobiomeEvolution

PhD position available on Microbiome Ecology and Evolution.

The group of Dr. Jaime Iranzo studying “Evolutionary dynamics of genomes, viruses, and microbial populations” at the Centre for Plant Biotechnology and Genomics (CBGP, Universidad Politecnica de Madrid, Spain) offers a PhD position under La Caixa Foundation’s INPhINIT Programme to study the evolution of ecological interactions, metabolic interdependencies, and virus-microbe predation networks within human and environmental microbiomes.

DEADLINES 4 February 2020 (“Incoming” fellowship, for candidates that have not resided in Spain for more than 12 months in the last 3 years). 26 February 2020 (“Retaining” fellowship, for candidates that have resided in Spain for more than 12 months in the last 3 years).

TITLE: Interplay of evolutionary and ecological processes in the microbiome

PROJECT DESCRIPTION: Evolution of bacteria and archaea critically depends on the exchange of genes through multiple mechanisms collectively known as horizontal gene transfer (HGT). HGT occurs at time scales that overlap with those of ecological processes, generating diversity in microbial populations and providing ready-made tools that facilitate fast adaptation to environmental challenges. As a result, the sharing of genetic information through HGT underlies much of the adaptability and evolutionary plasticity of prokaryotes, affecting their population and community structure. A second driving force of microbial evolution is the arms race between viruses and hosts, which not only results from but also modifies predator-prey ecological interactions within the microbiome. While the importance of HGT and virus-host arms races in microbial evolution is widely recognized, their combined effects on the dynamics of complex microbiomes is less well known.

To fill these gaps, we are applying methods from comparative genomics, flux balance analysis, and mathematical modeling to large metagenomic datasets in order to investigate how HGT and virus-host predation networks

shape the microbiome over time and determine the structure and stability of microbial communities. This bottom-up approach will add an evolutionary perspective to our understanding of microbiomes, leading to more accurate predictive models for the management of microbial communities.

JOB POSITION DESCRIPTION: We are seeking a highly motivated candidate with strong quantitative and computational skills and a background in bioinformatics, computer science, or biology. The PhD student will join a multidisciplinary team of young scientists that study fundamental aspects of microbial ecology and evolution using empirical data, computational tools, and mathematical models.

The PhD student will contribute to the research of the group by investigating how evolutionary processes, such as gene gain and loss, strain replacement, and virus-host coevolution, affect ecological interactions within the microbiome. Depending on the candidate’s background and personal interests, the project can be oriented towards (a) the development and application of advanced comparative genomic methods to infer metabolic interdependencies within microbial communities, virus-host infection networks, and their variation over time based on deep-sequencing metagenomic data; (b) the development of integrative mathematical models to predict the response of a microbiome, in terms of composition and stability, to the evolutionary processes listed above; or (c) a combination of both.

FELLOWSHIP BENEFITS: The doctoral fellowship INPhINIT “La Caixa” is devoted to attracting talented early-stage researchers of any nationality who wish to pursue doctoral studies in top-level research institutions in Spain and Portugal. Benefits of the Program include a highly competitive salary, funding for short-term research internships and participation in workshops and conferences, complementary training on transferable skills (e.g. entrepreneurship, management and networking), career counseling, and high-quality academic and industrial secondments to enhance the fellows’ future career opportunities in both academia and industry.

CONTACT: For further information about the research project, the position, and the application process, please contact Jaime Iranzo, email: jaime.iranzo@upm.es

Applications should be submitted through La Caixa INPhINIT online application system: <https://obrasociallacaixa.org/en/investigacion-y-becas/-becas-de-la-caixa/doctorado-inphinit/descripcion-del-programa> The INPhINIT Fellowship is a very competitive call. To maximize the chances of success, we highly encourage contacting us at the provided email address prior to submitting the online application.

More information about the research group:

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

CharlesU Prague PlantSpeciation

A Ph.D. position is available in the research group of Dr. Roswitha Schmickl (<https://lab-allience.natur.cuni.cz/-plantevocytogen/people-research>) at the Institute of Botany of the Czech Academy of Sciences and Department of Botany, Charles University.

Title of the Ph.D. project: Tropical-alpine plant radiations: the role of allopatry, hybridization and niche differentiation

Starting date (negotiable): March 2020

Project summary: Biodiversity of the tropical-alpine floras of South America and Africa have attracted botanists since the early 19th century. Evolutionary mechanisms that generated such extraordinary species richness, however, remain still largely unknown. The main goal of this research is to compare the timing of plant radiations in tropical-alpine habitats, detect key evolutionary processes involved in these radiations, particularly those related to Pleistocene climate oscillations, and assess their relative contribution to the origin of plant diversity in these biodiversity hotspots. For more info see <https://botany.natur.cuni.cz/ecolgen/node/59>. Requirements: The successful candidate should bring a broad and strong interest in evolution and/or historical biogeography. Methods within the project will focus on analyses of comparative phylogeography and phylogenomics. Previous experience in these fields is beneficial but not required. Excellent communication skills are needed for this position, as the candidate will become part of an international team comprising also members of the group of the Co-PI Filip Kolář (<https://botany.natur.cuni.cz/ecolgen/>) and international collaborators. The working language is English, and candidates should have strong written and spoken English skills.

Why you should join us: We offer a creative and supportive scientific atmosphere, which will give you the opportunity to develop your scientific career. You will

experience a fun mix of the Czech and international scientific environment, which, together with the vibrant cultural life of Prague, will provide you a unique research and life experience.

Questions and applications (CV + half-page motivation letter + contact information for two reference persons) should be sent to Roswitha Schmickl (roswitha.schmickl@natur.cuni.cz). Review of applications will begin on 20.1.2020 and will continue until the position has been filled. The position is available from March 2020.

– Roswitha Schmickl, Ph.D.

Univerzita Karlova PøírodovĀ́ fakulta Albertov 6, 128 43 Praha 2 www.natur.cuni.cz Charles University Faculty of Science Albertov 6, 128 43 Praha 2 www.natur.cuni.cz/en “Roswitha Schmickl, Ph.D.” [<roswitha.schmickl@natur.cuni.cz>](mailto:roswitha.schmickl@natur.cuni.cz)

Cologne RoundwormEvoDevo

Are you interested in obtaining your PhD in a welcoming city in the very heart of Europe? Would you like to do your challenging EvoDevo project working on a—group of understudied roundworms, establishing tools and techniques in new organisms? Are you interested in second and third generation single-cell genomics and transcriptomics and do you have experience with molecular biology and/or—microscopy? Then, why don't you consider applying for the PhD-position I will soon announce for my new group at the University of Cologne?—An official job description will follow soon.—Email me if you have informal questions or would like to chat— about this.

Philipp

Dr. Philipp Schiffer Teaching Fellow Centre for Life's Origins and Evolution University College London

Philipp Schiffer [<philipp.schiffer@gmail.com>](mailto:philipp.schiffer@gmail.com)

CzechAcademySci TrypanosomaEvolution

PhD position in Molecular Parasitology: Structure, function, evolution and biogenesis of mitoribosomes of *Trypanosoma brucei*

We are seeking a highly motivated individual to join our team working on the unique traits of mitochondrial ribosomes and translation of *Trypanosoma brucei*, the causative agent of the sleeping sickness. Ribosomes, highly conserved machines fundamental for all life forms, were recently shown to undergo unexpected diversification in endosymbiotic organelles with vestigial genomes. The most divergent ribosomes are found in the mitochondria of parasitic protists from the group of Kinetoplastids, including trypanosomes. In this project, we complement the wealth of structural information on mitoribosomes and their precursors obtained by cryoEM with functional approaches to get detailed insight into lineage specific features of translation in mitochondria of trypanosomes. We aim to understand how the divergent mitoribosomes co-evolved with the peculiar context of the mitochondrial gene expression in the parasite.

The successful applicant will work under the supervision of Ondrej Gahura in the Laboratory of Functional Biology of Protist led by Alena Zikova, at the Institute of Parasitology, Biology Centre of the Czech Academy of Science in Ceske Budejovice (Budweiss), Czech Republic. Our institute is located in the joint campus of Czech Academy and Science and University of Science Bohemia, providing an international and multidisciplinary scientific environment. The historic city of Ceske Budejovice (population 100.000), famous for its Budweiser beer, is a pleasant, safe and affordable place for living, and offers a wide range of free time activities.

We offer: * Work with organism with unique molecular and cellular processes and medical importance * Modern techniques of molecular and structural biology and biochemistry * Well-equipped laboratory with friendly and international team * Opportunities to present advances of the project on conferences, network of international collaborations * Scholarship and partial appointment together fully covering living expenses for at least 3 years

We expect: * MSc degree or equivalent from Biology, Biochemistry, or related field * Enthusiasm, commit-

ment and team spirit * Good English communication skills

TO APPLY, send a cover letter, CV and at least one reference contact to Ondrej Gahura (gahura@paru.cas.cz). The successful candidate will be selected in January 2020. Start date as soon as possible upon the mutual agreement.

Links: Laboratory of Functional Biology of Protists: <https://www.paru.cas.cz/en/sections/molecular-parasitology/laboratory-of-functional-biology-of-protists/> Ondrej Gahura: <https://www.paru.cas.cz/en/staff/profile/628-ondrej-gahura/> Studying in Czech Republic and living costs: <https://www.studyin.cz/live-work/living-costs/> ogahura@gmail.com

Debrecen Hungary PhysiologyBirdMigration

Regulation of the migratory phenotype PhD Studentship at the University of Debrecen, 2020-2024

We are looking for motivated candidates to fill a PhD position starting in Fall 2020 to conduct research in the fields of behavioural and evolutionary endocrinology at the University of Debrecen in Hungary.

The PhD project will focus on physiological trade-offs and regulation of life history transitions in relation to migratory behavior and breeding in birds. This project combines a variety of approaches from molecular biology to evolutionary biology, and provides opportunities to conduct exciting experiments to understand how birds prepare for and match their phenotype to the long and risky migrations they perform twice a year. The project therefore offers a great opportunity to learn new skills while earning a PhD degree.

The candidate should have a good command of English (written and verbal). A condition of the application is a Master's degree (or equivalent) in biology, zoology, veterinary sciences or similar subject. The ideal candidate is willing to work independently and for long hours in the field and has experience with handling birds and/or laboratory techniques.

The student will be based at the Department of Evolutionary Zoology and Human Biology (<http://zoology.unideb.hu/home/>) at the University of Debrecen (<https://unideb.hu/en>), the largest university in Hungary, which has a strong international commu-

nity. Full scholarship is available for citizens of eligible countries through the Stipendium Hungaricum program (www.stipendiumhungaricum.hu). Supervisors: Dr. Adam Lendvai and Dr. Zoltan Nemeth

Interested candidates should send a cover letter with personal motivation, a CV and name and contact info for 3 references via e-mail to Zoltan Nemeth (znemeth05@gmail.com).

Application deadline: December 20th, 2019

— Zoltán Németh

Department of Evolutionary Zoology and Human Biology University of Debrecen Debrecen, Egyetem tér 1., 4032, Hungary Phone: +36-(52)-512-900 ext. 62314 Cell: +36-(30)-236-5608 http://zoology.unideb.hu/?m=3DZoltan_Nemeth nemethzoltan@science.unideb.hu

znemeth05@gmail.com

Edinburgh Insect Hermaphroditism

Dear all,

I am looking for a talented and enthusiastic evolutionary/molecular biologist or entomologist for a 4-year PhD position in my lab <http://lauraross.bio.ed.ac.uk> at the Institute of Evolutionary Biology, University of Edinburgh. There are funding options for both UK and international students. If you are interested please contact me directly (laura.ross@ed.ac.uk) to discuss. Deadlines vary depending on funding source: 13th of December for non-UK, 9th of January for UK, but please contact me at least a week before the official deadline if interested!

The evolution of hermaphroditism in insects

Summary Organisms reproduce in diverse ways. Yet it is unclear why and how new reproductive strategies evolve. This project focuses on the only case of hermaphroditism in insects: In species of the scale insect *Icerya*, female-like hermaphrodites produce both sperm and eggs and self-fertilize.

Project background Understanding why there is such variability in the way organisms reproduce is one the most important unsolved puzzles in evolutionary biology. This project aims to tackle this question by focusing on the unique and puzzling reproductive strategy of the scale insect *Icerya purchasi*. This species is the only insect unequivocally described as hermaphroditic;

female-like hermaphrodites can produce both sperm and eggs and self-fertilize. But how can a female produce sperm? A recent hypothesis suggests that the sperm present in hermaphrodites seem to have originated from the individuals father “infecting” his future offspring with sperm-producing cells. However although the data is suggestive, this hypothesis requires further scrutiny. It is also unclear why, while most offspring develop as hermaphrodites, a small number develop as males. Finally it seems that while hermaphroditism is exceedingly rare in insects, it might have evolved independently in several close relatives of *Icerya*. This PhD project will explore how and why this unusual reproductive system evolved by using comparative methods across species as well as experimental and genomic analyses in the laboratory. Together this work will help us to better understand what evolutionary forces shape the ways animals reproduce.

Research questions The projects sets out to test a number of key questions to better understand the evolution of the only insect hermaphrodite:

- * What is the evolutionary and developmental origin of the sperm produced by female-like hermaphrodites?
- * Hermaphrodites can self-fertilize, so why and how do they occasionally produce male offspring?
- * How frequently did hermaphroditism evolved within the clade of insects and do any ecological factors predict the patterns we observe?

Methodology The project will use two main approaches: The first will focus on collecting insect specimens of different *Icerya* species, and then use molecular phylogenetic methods to determine their evolutionary relationships, and to study transitions between reproductive strategies employed by the different species. This part of the project is in collaboration with Prof. Penny Gullan, The Australian National University, Canberra. The second part of the project will focus on *Icerya purchasi*. We will use laboratory experiments and a combination of cytogenetic and genomic approaches to study different aspects of the reproduction of this species.

Training A comprehensive training programme will be provided comprising both specialist scientific training and generic transferable and professional skills. Specifically the student will undertake training in the use of molecular wet lab techniques, the analysis of sequencing data and the use of microscopy and cytogenetic approaches.

Requirements Candidates must be highly motivated with a keen interest in evolutionary biology and genetics and a strong motivation to pursue a scientific career. Previous experience working with insects and phylogenetic and genomic analyses would be advantageous.

References - Bachtrog, Doris, et al. "Sex determination: why so many ways of doing it?." *PLoS biology* 12.7 (2014): e1001899. - Gardner, Andy, and Laura Ross. "The evolution of hermaphroditism by an infectious male-derived cell lineage: an inclusive-fitness analysis." *The American Naturalist* 178.2 (2011): 191-201. - Unruh, C. M., and P. J. Gullan. "Molecular data reveal convergent reproductive strategies in iceryine scale insects (Hemiptera: Coccoidea: Monophlebidae), allowing the reinterpretation of morphology and a revised generic classification." *Systematic Entomology* 33.1 (2008): 8-50.

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

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

Europe 15 InsectEvolution

The new European joint doctorate programme INSECT DOCTORS is now hiring. The INSECT DOCTORS network will train promising young scientists to develop the knowledge, technical skills and tools to diagnose and manage disease problems in commercial insect production systems. INSECT DOCTORS is a European Joint Doctorate (EJD) Programme funded in the framework of the H2020 Marie Skłodowska-Curie ITN programme.

15 PhD positions are available across Europe, covering a wide range of topics from pathogen diagnostics to experimental evolution. For more information on the project, the eligibility rules and how/where to apply for each position see <https://www.insectdoctors.eu/>. "Ros, Vera" <vera.ros@wur.nl>

GeorgeMasonU EvolutionCamouflage

A MSc student research position is available to start Fall 2020 in the lab of Dr. Ylenia Chiari at George Mason University in Virginia (USA). We seek a highly motivated prospective graduate student with an interest in camouflage. The project involves field and computer work. The Chiari Lab (www.yleniachiarit.it) uses integrative approaches from molecular biology to behavior

to computational modeling to study the causes and consequences of morphological variation in reptiles and mechanisms of adaptation in fish.

Successful candidates will have some previous research experience and a strong interest in evolutionary biology. Applications from traditionally underrepresented groups is encouraged.

For full consideration for admission to the MSc program the deadline is January 15 2020. Candidates can decide to apply to the MSc in Biology <https://catalog.gmu.edu/-colleges-schools/science/systems-biology/biology-ms/or-environmental-sciences> <https://esp.gmu.edu/academic-programs/graduate/forms-and-policies/important-dates/depending> on the coursework the student is most interested in.

Full support will be provided through a teaching assistantship. However, the successful candidate will also be encouraged to apply for graduate fellowships during his/her MSc.

George Mason is located in the exciting Washington D.C. area and is one of the fastest growing universities in the US. Students can take advantage of the strong inter-connectivity between George Mason and the Smithsonian and other Government and Non-Profit Institutions.

Prospective students should send a short description of their research interests and past research experience along with a resume or CV (including the names of three people who could serve as a reference on your behalf) to toychiari@gmu.edu. Selection of candidates will begin immediately.

Dr. Ylenia Chiari Assistant Professor

Department of Biology George Mason University Science and Technology Campus 10900 University Boulevard, MSN 4D4 407 Colgan Hall Manassas, 20110 VA USA

Phone: (703) 993-4467 Email ychiari@gmu.edu
Lab Webpage <http://www.yleniachiarit.it> Twitter https://twitter.com/ylenia_chiari Ylenia Chiari
<yle@yleniachiarit.it>

GhentU PhylogeographyNeotropicalTrees

UGent_Belgium.PhylogeographyNeotropicalTrees

PhD studentship with teaching responsibilities

The Systematic and Evolutionary Botany lab at Ghent University, Belgium, is recruiting a research assistant. Research Assistants are PhD students with additional 30-40% teaching responsibilities. We offer you a two-year appointment, which may be renewed twice for two years (up to six years in total). You are passionate about the evolution of plant diversity, especially in the tropics. You will be working in a research group focusing on the systematics and evolution of tropical plants, and your research will focus on phylogeography and diversification of a clade of Neotropical tree species in the Annonaceae.

For further information, please visit our website: <https://bit.ly/2RJLm2y> You can apply until 07/01/2020 23:59 (Brussels time)

Lars Chatrou

Professor of Systematic and Evolutionary Botany
Ghent University K.L. Ledeganckstraat 35 9000 Ghent,
Belgium Phone: +32 9 264 50 14 E-mail:
lars.chatrou@ugent.be

Lars Chatrou <lars.chatrou@ugent.be>

GreifswaldU MathematicalPhylogenetics

Dear evoldir users,

I am searching for a highly motivated PhD candidate in the area of graph coloring and graph algorithms, in relation to biomathematics, in particular mathematical phylogenetics (however, pre-knowledge of biomathematics in general or phylogenetics in particular is not required). The position is offered for 3 years with the possibility of further extension. Payment is based on the German TV-L 13 payment scheme (50%).

Greifswald is a beautiful tourist town in northeastern

Germany directly at the Baltic Sea. The university has a long tradition as it was founded already in 1456, and the mathematics institute has a strong focus on biomathematics and discrete mathematics.

Please bring this job announcement to the attention to all potential candidates, and do not hesitate to contact me in case you have any further questions.

Kind regards, Mareike Fischer

P.S. The job announcement can be found here: <https://www.uni-greifswald.de/universitaet/-information/stellenausschreibungen/wissenschaftliches-personal/stellenausschreibung/n/wissenschaftlicher-mitarbeiterin-institut-fuer-mathematik-und-informatik-19sa49-56397/> (The link is in German, but knowledge of the German language is NOT mandatory in order to work in my group!)

Prof. Dr. Mareike Fischer

Biomathematics and Stochastics Institute for Mathematics & Computer Science Greifswald University Walther-Rathenau-Str. 47 Office 3.15 17487 Greifswald GERMANY

+49 (0) 3834 420 46 43

mareike.fischer@uni-greifswald.de

Mareike Fischer <email@mareikefischer.de>

ImperialCollege London BeeEvolutionaryEcology

PhD: Studying bumblebee population dynamics and adaptations to understand plant-pollinator evolution under climate change Supervisors: Richard Gill, Jacob Johansson & Keith Larson

To date our understanding of how insect pollinator declines are influenced by climate change remains limited. For instance, why have some species shown evidence of latitudinal range shifts in apparent response to climate change when others have not? To address this type of question requires us to understand the eco-evolutionary processes by which insect pollinator populations and their host plants are dynamically responding and how this translates to plant-pollinator network evolution under climate change. Taking a population biology approach (using complementary genetic approaches), this project will look to understand how bumblebee populations and host plant visitations have changed over the

past 50 years for an Arctic bumblebee community in Lapland, Sweden. This will involve understanding how preceding climatic condition has affected population demography of each of 13 species of bumblebee. The study will reveal changes on population trait frequencies over space and time and how resource competition is determined through adaptations to temperature extremes to predict plant-pollinator network structure and the potential for species invasions.

The project takes advantage of a unique phenology transect established over a century ago allowing us to compare past data on bumblebee/plant community composition and phenology with contemporary data spanning the major warming over the last five decades. The transect runs along an altitudinal gradient on Mount Nuolja, Abisko, providing a thermal cline with the study taking a space-for-time substitution approach. The student will become experienced in using a number of interdisciplinary techniques, including a variety of fieldwork skills, bee and plant taxonomic identification, molecular methods in DNA barcoding and population genetics, studying bee thermal profiling, managing and analysing big data, skills in ecological network construction, statistics and developing mathematical models to understand extinction vulnerability. The project will involve a significant amount of fieldwork in the Arctic and will require the candidate to be relatively physically fit. This interdisciplinary project will also benefit from co-supervision & collaboration from a number of world-leading scientists, including: Jacob Johansson (Imperial College and Lund University, Sweden); Keith Larson (Umea University, Sweden); Jason Tylianakis (Canterbury University, NZ); Andrew MacDougall (University of Guelph, Canada); Emily Baird (Stockholm University (Sweden).

The PhD is competitively funded. The student will be based at the Silwood Park campus of Imperial College and hosted by the Gill lab that is well equipped to study bee evolution and ecology. The student will be surrounded by world leading researchers in the disciplines of ecology, evolution and conservation. Facilities include 100 hectares of field site, new controlled environment rooms, microbiology facility, labs tailored for bee research and spacious workspace.

Please send your CV, a one page cover letter explaining why you are suitable for the project, and the names and e-mail addresses of two referees to Dr Richard Gill r.gill@imperial.ac.uk by 6th January 2020. Informal enquiries for either are welcomed.

Student eligibility: Applicants should have, or be about to obtain, a Masters qualification and have a 2.1 or higher undergraduate degree in Biology, Ecology, Evolution or similar. To be eligible for a full award they

must have either British Citizenship, or Settled status in the UK, meaning they have no restrictions on how long they can stay, or been 'ordinarily resident' in the UK for 3 years prior to the start of the studentship - (For non-EU citizens, this must not have been in full time education.). This does not apply to UK nationals.

Dr Richard Gill Department of Life Sciences Imperial College London Silwood Park campus Buckhurst Road, Ascot Berkshire, SL5 7PY UK Phone: 44 (0)20 759 42215 Webpage: <http://www.imperial.ac.uk/people/r.gill> Senior Lecturer, Grand Challenges in Ecosystems and the Environment Initiative Course Director for Masters of Research (MRes) in Ecology, Evolution & Conservation

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

LausanneU EvolutionBehavior

PhD position in comparative neurogenetics and behaviour

We are looking for a PhD candidate (earliest starting date: 01/01/2020) to develop a project in comparative neuroscience and behaviour in the lab of Prof. Richard Benton (www.unil.ch/cig/benton) under the co-supervision of Dr. Thomas Auer at the Center for Integrative Genomics, University of Lausanne, Switzerland.

The candidate will develop his/her project within the larger lab topic of behavioural evolution using the chemosensory system of the closely-related *Drosophila* species *D. melanogaster* and *D. sechellia*. These flies show opposing behaviours upon exposure to hexanoic acid: *D. melanogaster* is repelled while *D. sechellia* is attracted. This behavior is highly relevant for the ecology of *D. sechellia*, as it lives exclusively on a single host fruit enriched with hexanoic acid. We are using a comparative evolutionary approach to decipher how acid sensing circuits differ between both species.

This involves RNA-sequencing, neurogenetic tool development for functional imaging in chemosensory circuits, genome engineering and behavioural analysis (see Auer et al., bioRxiv <https://www.biorxiv.org/content/10.1101/546507v1> as relevant reference).

Our experiments will answer the fundamental question of how evolutionary adaptations in the chemosensory circuits lead to differential sensing of information at the periphery and/or how neural circuit connectivity

modifies the perception of the sensed information in the central brain. Ultimately we aim to link genetic and neural changes to an animal's behavioural choices and the occupation of specific ecological niches.

Please find more details about the project at the official application website (link below).

Funding Notes: Renewable contract, 1+2+2 years.

Institution: The University of Lausanne is a higher teaching and research institution composed of seven faculties where approximately 15,000 students and nearly 5,000 collaborators, professors and researchers work and study. Situated along the shores of Lake Geneva, near Lausanne's city center, its campus brings together over 120 nationalities.

Job information: Expected start date in position : 01.01.2020 / to be agreed Contract length : 1 year, renewable (1+2+2 years) Activity rate: 100% Workplace: University of Lausanne, Dorigny

Your qualifications : - A Master's degree in molecular biology, neurobiology and/or evolutionary biology (Please note that a M.Sc. degree is a pre-requisite to join our Ph.D. program!) - Strong interests/skills in evolutionary biology, molecular biology, genetics, neurobiology and/or behavioural analyses - Excellent scientific writing, communication and interpersonal skills

What the position offers you: The Benton lab is hosted at the Center for Integrative Genomics (CIG) at the University of Lausanne (UNIL), a vibrant, well-funded institute with a focus on functional genomics and equipped with modern core facilities (see www.unil.ch/cig). It is embedded in the broader Lausanne research environment that includes two universities (UNIL, EPFL), the Swiss Institute of Bioinformatics, Ludwig Center for Cancer Research, university hospital and a multicultural, diversified and dynamic academic environment.

Contact for further information: Information can be requested by email to: Richard.Benton@unil.ch or Thomas.Auer@unil.ch

Your application: To apply you must upload as a single pdf document: - a CV - a motivation letter in English, including the names of 2-3 referees

Deadline : 15.12.2019

Only applications through the University of Lausanne job portal will be taken into account. (https://career012.successfactors.eu/career?career%5fns=job%5flisting&company=universitdP&navBarLevel=JOB%5fSEARCH&rcm%5fsite%5flocale=en%5fUS&site=VjItZWWhoWmlWYW8yU1F5YUFxNFBpQ09lU109%5f&career_job_req_id=15190&selected_lang=en_US&jobAlertController.jobAlertId=&jobAlertController.jobAlertName=&.s.crb=

[bE07hbd3yPZNhNaWGb57H8HqTPs%3d](https://career012.successfactors.eu/career?career%5fns=job%5flisting&company=universitdP&navBarLevel=JOB%5fSEARCH&rcm%5fsite%5flocale=en%5fUS&site=VjItZWWhoWmlWYW8yU1F5YUFxNFBpQ09lU109%5f&career_job_req_id=15190&selected_lang=en_US&jobAlertController.jobAlertId=&jobAlertController.jobAlertName=&.s.crb=))

Additional information: UNIL is committed to promoting gender equality and strongly encourages applications from female candidates.

Thomas Auer, PhD Benton laboratory Center for Integrative Genomics Genopode Building University of Lausanne CH-1015 Lausanne Switzerland

Thomas Auer <thomas.auer@unil.ch>

LundU EvolutionMulticellularity

Doctoral Student in Biology

Project description A fully funded PhD position is available to work on evolutionary transitions to multicellularity. The student will work within the molecular ecology and evolution lab as well as the aquatic ecology group at the Department of Biology, Lund University. Over evolutionary time there have been several major transitions that have shaped contemporary patterns of organismal complexity. In each of these transitions a group of individuals that previously replicated independently joined together to form a new, more complex life form. For example, single cells joined together to form multicellular organisms just as certain species of animals have foregone independence to live and reproduce in social groups.

Work description This PhD position will examine what predisposes some species to undergo the transition from unicellularity to multicellularity, and why multicellularity has been lost in some lineages. The project will initially focus on green algae where there have been gains and losses of multicellularity across species and will use a combination of experimental evolution, ecological and life-history data from natural lake systems and comparative analyses across different species.

This position will provide opportunities to generate independent ideas and learn social evolutionary theory; omics techniques (genomics, transcriptomics & metabolomics); developmental biology and the evolution of life-cycles; experimental evolution design and analysis; lab and field experiments with micro-organisms; a range of microscope techniques including SEM, TEM, spatial and temporal visualisation; advanced statistical modelling and phylogenetic comparative methods.

The Department of Biology has a number of different research units including evolutionary ecology, molecu-

lar and microbial ecology, aquatic ecology, speciation, sexual selection, and host-parasite coevolution, and as such the PhD student will be integrated in a lively, stimulating and diverse intellectual environment.

Qualifications * It is essential that the candidate has:
 * An MSc in Biology, or closely related field, with a background in evolutionary ecology, molecular ecology and/or aquatic ecology * Excellent spoken and written English

Merits It is also preferable that applicants have demonstrated:
 * Practical experience of working with microorganisms * Experience of molecular genetics and/or basic skills in bioinformatics * Experience of data manipulation and statistical analyses in R, particularly mixed modelling

Basis of Assessment We are looking for a highly motivated candidate with a strong scientific curiosity. The application should include:
 * A personal letter stating your interest for the project and doctoral studies as well as any relevant experience for the project, * A curriculum vitae that includes education and earlier employments, * Attested copies of diplomas, transcripts, and certificates * Copies of theses and eventual scientific publications * Contact information (phone, email) for at least two references.

Eligibility Students with basic eligibility for third-cycle studies are those who- have completed a second-cycle degree- have completed courses of at least 240 credits, of which at least 60 credits are from second-cycle courses, or- have acquired largely equivalent knowledge in some other way, in Sweden or abroad.

The employment of doctoral students is regulated in the Swedish Code of Statutes 1998: 80. Only those who are or have been admitted to PhD-studies may be appointed to doctoral studentships. When an appointment to a doctoral studentship is made, the ability of the student to benefit from PhD-studies shall primarily be taken into account. In addition to devoting themselves to their studies, those appointed to doctoral studentships may be required to work with educational tasks, research and administration, in accordance with specific regulations in the ordinance.

Contacts Charlie Cornwallis, charlie.cornwallis@biol.lu.se
 Maria Svensson-Coelho, maria.svensson_coelho@biol.lu.se
 Karin Rengefors, karin.rengefors@biol.lu.se

Application deadline is 1st February 2020, and we welcome informal enquiries. Please apply via < <https://lu.varbi.com/en/what:login/jobID:305670/-type:job/apply:1/> > Lund University welcomes applicants with diverse backgrounds and experiences. We

regard gender equality and diversity as a strength and an asset.

Maria Svensson Coelho
 <maria.svensson_coelho@biol.lu.se>

MonashU Australia EvolutionEcolDisease

Multiple PhD positions are available in the Hall lab at Monash University in Australia to work on themes broadly related to the ecology and evolution of infectious disease. Projects in the Hall lab include understanding how global change and infectious disease interact to influence population persistence; unravelling how invasion fronts can accelerate or hamper the spread of infectious disease; and, contrasting the role of males and females in the evolution of pathogen virulence. These projects make use of a variety of species of *Daphnia*, commonly known as the water-flea a small crustacean that inhabits a range of freshwater habitats, from coastal rock-pools to alpine lakes, and are found throughout Australia and the rest of the world. For more information see:

<https://lab.mattddhall.com/opportunities> Candidates with experience in any aspect of ecology, evolution, or host-pathogen interactions are encouraged to apply, although experience in these areas is not necessary. There are opportunities to design projects that focus on population biology, field ecology, evolutionary genetics, experimental epidemiology, or combinations of the above. The starting date can be any time during the first half of 2020 or until filled. Interested candidates should send their academic transcript, along with a cover letter outlining their research interests and motivation to matthew.hall@monash.edu.

Regards,

Matt

– Dr Matthew D. Hall ARC Future Fellow and Senior Lecturer School of Biological Sciences, G30D, 18 Innovation Walk Monash University, Clayton Campus, Victoria, 3800, Australia

lab.mattddhall.com

Email: matthew.hall@monash.edu Phone: +61 3 9905 5793 Mobile: +61 478 399 592 twitter: @mattdd_hall

“matthew.hall@monash.edu”
 <matthew.hall@monash.edu>

MonashU BeeAdaptation

Monash U Australia/Graduate Position/Immediate start

A fully-funded Ph.D. position is available examining thermal adaptation in native Australian bees. Bees are keystone species in many ecosystems due to their role as pollinators. Any changes in the abundance and distribution of bees will have significant knock-on effects on biodiversity and ecosystem services. Despite their outsized ecological role, we know very little about climatic adaptation in bees, or even which climatic factors drive bee distributions.—

In this project, we will use the rich and diverse Australian bee fauna to investigate the capacity of bees to adapt to climate change. Using field-based surveys of a bees thermal tolerances,—comparative phylogenetic approaches and field reciprocal transplant experiments—the project aims to:—determine the role of temperature and rainfall in shaping the distribution of native bee species, predict the capacity of native bees to adapt to climate change and determine the role of environment and genetic variation in shaping population variation.—

We are seeking a student who is highly—motivated and—passionate about evolutionary biology. Preferred candidates will have experience in evolution, ecology and thermal physiology, although experience in these areas is not necessary.—There—will be opportunities—for the successful applicant to pursue their own scientific ideas within the aims of the project. The successful candidates will be supervised by Dr Vanessa Kellermann (Monash University) and Dr Ros Gloag (University of Sydney) and will be based at Monash University's School of Biological Sciences.—

The successful applicant will be awarded a scholarship that covers salary (current rate is \$27,862 AUD tax-free per year), and a waiver of student fees, international students are welcome to apply. — Interested applicants should submit a CV, a copy of their academic transcript and a cover letter outlining their research interests to vanessa.kellermann@monash.edu and ros.gloag@sydney.edu.au.— For links to the PhD application process at Monash University go to vanessakellermann.com.

vanessa.kellermann@monash.edu

NorthCarolinaStateU CropEvolution

Broadly interdisciplinary PhD fellowships NC State University, Raleigh, NC, USA

National Science Foundation-funded graduate research training program offering Ph.D. candidates across multidisciplinary fields of study the opportunity to examine the science, policy, and public engagement aspects and impacts of Agricultural Biotechnology on Food, Energy, and Water. Evolution of crops and their pests/weeds is one focus of the program. Fellowships are at \$34K per year.

Program Fellows receive a Ph.D. in a natural/social science, or humanities graduate program and a graduate minor in Genetic Engineering and Society, and will:

Embark on their studies embedded with NC farms, with later opportunities for international internships - Collaborate on an interdisciplinary cohort project - Take advanced interdisciplinary graduate courses and develop at least one interdisciplinary chapter in the PhD thesis.

For more information email Fred_Gould@ncsu.edu

Fred Gould <fgould@ncsu.edu>

NorthDakotaStateU EvolutionBehavior

The Dochtermann Lab in the Department of Biological Sciences at North Dakota State University is seeking to fill a PhD assistantship examining the ecological and/or evolutionary implications of behavioral syndromes (correlations between behaviors). In our lab we focus on evolutionary questions regarding the maintenance of variation within and among populations and the evolutionary implications of trait correlations. The student will develop and pursue their own research topics under this general topic.

The position will start Fall Semester 2020. The student will be housed and working in the Department of Biological Sciences (<https://www.ndsu.edu/biology/>) with their degree awarded through the NDSU Environ-

mental Sciences and Conservation Program (<https://www.ndsu.edu/ecs/>).

Requirements: Bachelors or Masters in ecology, evolution, animal behavior, or related field; experience collecting and analyzing data; ability to work independently and as part of a larger collaborative group.

Preferred: MSc preferred; experience conducting quantitative genetic experiments; field research experience

If interested please contact me at ned.dochtermann@gmail.com with a brief synopsis of your research interests.

Ned

– Ned A. Dochtermann Associate Professor / Department of Biological Sciences / NORTH DAKOTA STATE UNIVERSITY

www.neddochtermann.com ned.dochtermann@ndsu.edu
ned.dochtermann@gmail.com

NorthernArizonaU Bioinformatics

Northern Arizona University: Recruitment is open for graduate student positions in the area of Health and Bioinformatics in the School of Informatics, Computing and Cyber Systems (SICCS) at Northern Arizona University (NAU). Qualified students are eligible for research and teaching assistantships with highly-competitive stipends. SICCS’ mission is to conduct high-impact, innovative research in informatics with an emphasis on producing solutions that lead to benefits in human and environmental health.

Research opportunities are available in the following areas linked to specific SICCS faculty: Viacheslav “Slava” Fofanov: High-throughput metagenomic sequencing, pathogen detection and transmission. Tara Furstenau: Bioinformatics, computational biology, metagenomic analysis, pathogen detection. Crystal Hepp: Phylogeography, arboviruses, molecular epidemiology. Joe Mihaljevic: Ecological informatics, multi-pathogen communities, infectious diseases. Marc Tollis: Phylogenetics, population genetics, phylogeography, comparative genomics, cancer evolution. Other research opportunities are available with our affiliated faculty: Gregory Caporaso: Bioinformatics, bioinformatics education, human microbiome.

Flagstaff offers an ideal, scenic environment for living and learning. With a four-season climate, amazing land-

scapes, and ample sunshine, you’ll discover outdoor adventures unlike anywhere else in the United States! Find out more about NAU and Flagstaff at <https://nau.edu/about/living-in-flagstaff/>. Assistantship benefits include stipends, full tuition waiver, health insurance, and research support.

Candidates should explore the SICCS website (<http://bit.ly/bioSICCS>) and contact the professor whose interests align most closely with information on their background, research interests, and qualifications, as well as a current resume.

Formal applications to our programs can be submitted online at <http://bit.ly/siccsapply>. Applications for our PhD program are due on January 1. Applications received early may be considered for a prestigious NAU Presidential Fellowship, which provides an increased stipend and additional funding to support professional development.

Marc Tollis, Ph.D. Assistant Professor School of Informatics, Computing and Cyber Systems College of Engineering, Informatics, and Applied Sciences Northern Arizona University Room 117 | 1295 S Knoles Drive | Flagstaff, AZ | 86011 Phone: (928) 523-3406 <https://tollislab.org/> Marc Tollis <Marc.Tollis@nau.edu>

OhioU ComparativePopGenetics

The Alvarado-Serrano Lab in the Department of Biological Sciences at Ohio University is recruiting highly motivated PhD students interested in working on comparative spatial population genetics beginning in Fall 2020. Work in the lab is truly integrative and focuses on combining fieldwork, genomic analyses, and a variety of bioinformatic, statistical, and geospatial approaches to understand how the environmental context of populations shape their evolutionary trajectories. For this, we integrate theoretical and simulation-based inferences with empirical work on multiple systems (including small terrestrial mammals in the northern Andes). More about research in the lab can be found at: <https://alvarado-s.weebly.com/> If interested, please email me (alvarado.s@ohio.edu) with the subject line “Prospective Graduate Student” and include a CV and a brief cover letter describing research interests and relevant experiences.

The Alvarado-Serrano lab is committed to diversity and inclusion and welcomes applications from students

with diverse backgrounds, perspectives, and experiences. Ohio University's deadline for applying to graduate school is Jan. 8. More information about the program can be found at: <https://www.ohio.edu/cas/biology/graduate/> Diego F. Alvarado-Serrano Assistant Professor

Biological Sciences Department Ohio University

Website: <http://alvarado-s.weebly.com/> "Alvarado Serrano, Diego" <alvarado.s@ohio.edu>

www.zoo.ox.ac.uk/graduates-application-process). Potentially interested candidates are invited to contact Cristian Capelli to further discuss the project and funding (cristian.capelli@zoo.ox.ac.uk). Note that accessing University funding is highly competitive and candidates would be expected to have a very strong curriculum in order to succeed.

Not all successful applicants may be eligible to receive a full studentship (i.e. fees and stipend) - please read in detail the Residency and Citizenship requirements.

Cristian Capelli <cristian.capelli@zoo.ox.ac.uk>

Oxford Genomics

Dphil positions in Bio-Anthropology (Department of Zoology) to investigate the genetic history of human and non-human primates, under the supervision of Prof Cristian Capelli. (<https://www.zoo.ox.ac.uk/people/dr-cristian-capelli>), to start Autumn 2020 at the University of Oxford.

The project aims at reconstructing the gene flow and population structure in human and non-human primates using whole genome sequence data. Data is partially already available, allowing a prompt start of the project(s), and part will be generated during the duration of the project. Depending on the interest of the candidate(s), the projectS can focus on the genetic history of modern day human populations or the genetic structure of modern day Southern African baboons (Papio).

Essential criteria: a) Good programming skills in R and/or Python; b) Previous experience in handling sequencing genome data; c) excellent communication and writing skills; d) ability to work independently when needed; e) a solid record of excellent academic achievements.

Funding: There are three possible ways to support this project a) Candidates with their own funding (self-funded or supported by other Grant funding bodies e.g Commonwealth Scholarships, National Funding Agencies, etc) b) Application for a place in the Doctoral Training Program (more information here: <https://www.zoo.ox.ac.uk/graduates-application-process>) c) University funded studentships (Boise, Clarendon, etc). After the application (<https://www.zoo.ox.ac.uk/graduates-application-process>) competitive candidates will be selected and further evaluated as possible recipients of these scholarships.

The deadline for applying is midday on the 24th of January 2020 (application details here <https://www.zoo.ox.ac.uk/graduates-application-process>)

PoznanPL ParasiteEvolution

PhD-position in Evolutionary Biology: "Parasite evolution in response to climate warming"

The position is available from 1st June 2020 and limited to 3 years.

The proposed research is collaboration between Polish and German scientific teams: PD Dr. Slawek Cerbin from Adam Mickiewicz University (Poland) and Prof. Justyna Wolinska from IGB and Free University Berlin, jointly financed by Polish National Science Centre and German Research Foundation. The position is mainly based in Poland; however, a six-month research stay at the IGB-Berlinis planned. Funding for attending national/international conferences is available.

Project description:

It is commonly believed that global warming will result in a "sicker world", with infectious diseases increasing in prevalence and virulence. However, these predictions are based on short-term experiments that have not recognized evolution that could lead to thermal adaptation. This project aims at answering the question whether parasites' prevalence and virulence is altered under elevated temperatures and if long-term exposure to warming amplifies this effect. The successful candidate will use a combination of experimental evolution and field approaches to generate new predictions regarding the evolution of parasites in a warmer world. He/she will use a model system consisting of the crustacean *Daphnia* and their microparasites. The project offers opportunities to learn state-of-the-art methods and a range of transferable skills.

Duties and responsibilities

* laboratory experiments * field work (including arti-

ficially heated lakes which serve as a globally unique model of “warmer world”) * advance statistical analyses of experimental (life history and genomic) and field (environmental and genetic) data * writing scientific publications

Requirements

* MSc degree in biology * strong background in evolutionary biology, population genetics or ecology * hands-on experience with experimental work * experience in molecular or genomic research would be an advantage * excellent analytical skills and very good knowledge in statistics (R programming) * previous experience with Daphnia culturing and field work are considered advantageous * excellent communication and writing skills in English * good work ethic * creative thinking

How to apply:

Please send complete application documents as a single pdf-file by email to dr. S. Cerbin (cerbins[at]amu.edu.pl; In the subject field include “Paradapt PhD”): no later than 17th January 2020.

The application should include:

1) CV

Please include the following statement in your CV: “Pursuant to Article 6 (1) of the General Regulation on the Protection of Personal Data of 27 April 2016 (Journal of Laws EU L 119/1 of 4 May 2016) I agree on the processing of personal data such as: name, (names) and surname, parents’ names, date of birth, place of residence (correspondence address), education, course of previous employment, included in my job offer for the needs of current recruitment.”

2) A letter of motivation

3) A scan of MSc diploma

4) Contact details to two/three potential referees, including MSc supervisor

The beneficiary of the National Science Centre stipend will be chosen by a selection committee based on regulations about scientific scholarships for young researchers in research projects financed by the Polish National Science Centre. The recruited person will be required to enroll as a regular PhD-student in PhD School of the Adam Mickiewicz University.

Prof. Justyna Wolinska

Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB) Mueggelseedamm 301 12587 Berlin, Germany

Group Leader at the IGB & Professor for Aquatic Evolutionary Ecology at the Free University of Berlin

Phone: +49 (0)30 64181 686; Fax: +49 (0)30 64181 682; email:wolinska@igb-berlin.de

<http://www.igb-berlin.de/en/profile/justyna-wolinska-0> <http://www.igb-berlin.de/en/wolinska> Justyna Wolinska <wolinska@igb-berlin.de>

QueensU Belfast AlienFish

NERC QUADRAT DTP CASE: Understanding and predicting the success of alien freshwaterfish

Project Description

Overview:

Alien species, those introduced outside their native range, are a major driver of environmental change that may lead to the extinction of local biodiversity, alter ecosystem services and cause huge economic damage. With increasing global trade, the number of new alien species is growing rapidly. Thus, identifying which species may establish and become invasive is an urgent global challenge. However, with no history of past invasion, it is hard to predict which new alien species will establish, and which ones will go naturally extinct. Freshwater fish are among the most frequently introduced vertebrates and many have major detrimental effects on the most vulnerable ecosystems on Earth ’V freshwater habitats. Surprisingly, we know remarkably little of why some fish species are more likely to establish and spread in novel regions, and which species are likely to be the future successful aliens.

Aim:

To identify which species’ traits facilitate the introduction, establishment and spread of alien freshwater fish and predict the probability of success of potential future invaders, at global and local scale.

Objectives:

- 1) To build a global scale database on freshwater fish introductions, introduction pathways, and species traits;
- 2) To test which species characteristics determine the probability of introduction, establishment and spread of alien freshwater fish using the database, phylogenetic comparative methods and theoretical modelling;
- 3) To produce a Horizon scanning output that informs policy, by quantifying how different pathways to introduction (e.g. angling, fisheries, pet trade) influence the probability of release in novel regions, and deriving their probability invasion at global and local scale for species

likely to be introduced globally and in the UK and Ireland in particular. There is also the possibility to carry out case studies in the field in Ireland, Argentina or Indonesia.

Training:

The student will be trained in data collection and management of large datasets, state of the art phylogenetic comparative approaches in R and mathematical models of range expansion, and will use Queen's University High Performance Computer KELVIN. The student will engage with stakeholders through a 3 months placement at AFBI.

While working on important ecological questions and a global challenge, the student will gain a rare set of interdisciplinary skills that increase employability, including cutting edge statistical and mathematical modelling, data management, numeracy, evaluating risk and uncertainty, as well as gaining in depth understanding of fundamental principles in ecology and freshwater science. Through the placement the student will gain better understanding and skills required to inform policy on environmental monitoring and management.

Start date: 1 October 2020

Duration: 42 months

Eligibility:

Candidates should have (or expect to achieve) a minimum of a 2.1 Honours degree in a relevant subject. Applicants with a minimum of a 2.2 Honours degree may be considered providing they have a Distinction at Master's level.

Application procedure:

DEADLINE for application: 22/01/2020

- Apply for Degree of Doctor of Philosophy in Biological Sciences at Queen's University Belfast, here:

Login - Applications Portal - State name of the lead supervisor (Capellini) as 'Name of Proposed Supervisor' on application - State 'QUADRAT DTP' as Intended Source of Funding

Funding Notes This project is funded by the NERC QUADRAT-DTP and is available to UK/EU nationals who meet the UKRI eligibility criteria. Please visit View Website for more information.

The studentship provides funding for tuition fees, stipend and a research training and support grant subject to eligibility.

References Capellini I, et al. 2015. The role of life history traits in mammalian invasion success. *Ecology Letters* 18: 1099-1107.

Fraser EJ, et al. 2015. Range expansion of an invasive species through a heterogeneous landscape - the case of American mink in Scotland. *Divers. Distrib.* 21, 888-V900

Samson E, et al. 2017. Early engagement of stakeholders with individual-based modeling can inform research for improving invasive species management: the round goby as a case study. *Front. Ecol. Evol.* 5, 149

Isabella Capellini <isab972@yahoo.co.uk>

QueensU Belfast Amphibian Evolution Extinctions

“Global profiles of species declines and success in the era of climate change”

A PhD position to join the MacroBiodiversity Lab (<http://selectiondynamics.weebly.com/>) at Queen's University Belfast funded by NERC as part of the QUADRAT Doctoral Training Partnership is open for applications to start in October 2020.

The closing date is the 22nd January 2020: <https://www.findaphd.com/phds/project/quadrat-dtp-global-profiles-of-species-declines-and-success-in-the-era-of-climate-change/?p115924> Project Description The alarming extinctions of species worldwide pose unprecedented challenges for wildlife and human wellbeing. But, what factors drive species to extinctions? Why do some species face extinction risks while others seem to be thriving? Do some species benefit from the extinctions of other species? Just like medicine and the insurance industry do, can we identify the 'profile' of features that define threatened species, and the profile of species that are thriving with climate change? These are all critical questions that we are only starting to elucidate. Traditionally, conservation agendas around the world have estimated extinction risks based on the 'conservation status' that is assigned to each individual species - these are static 'labels' used to class species within either threatened or non-threatened categories. However, while this classic approach has shaped our understanding of the modern extinction crisis, it largely neglects whether species are currently undergoing population decreases, increases or stability. Estimating extinction risks based on these 'population trends' is a critical pending challenge, given that ongoing population declines lead to extinctions (even in species currently classed as non-threatened), while ongoing

population increases can indicate progressive recovery (even in species currently classed as threatened).

This project implements a global-scale research program investigating the drivers of population declines and increases in the world's amphibians - one of nature's most endangered animal lineages. The project is part of the Global Amphibian Biodiversity Project (GABiP), a scientific initiative investigating the diversification, distribution, and extinctions of amphibians worldwide. Using a global dataset spanning population trends, reproduction, morphology, ecology, and distribution for >4,000 species, and a range of state-of-the-art phylogenetic and spatial computational techniques, this project will (1) elucidate the 'profile' of traits shared by species in decline and of those with increasing/stable populations, (2) combine multiple environmental variables to establish the geographic areas hosting high concentrations of declining and succeeding species, to ultimately (3) develop quantitative predictions about geographic areas of threat and of success around the globe, to inform conservation action and policy.

Start date: 1 October 2020

Duration: 42 months

Eligibility: Candidates should have (or expect to achieve) a minimum of a 2.1 Honours degree in a relevant subject. Applicants with a minimum of a 2.2 Honours degree may be considered providing they have a Distinction at Master's level.

Application procedure: - - Apply for Degree of Doctor of Philosophy in Biological Sciences at Queen's University Belfast - - State name of the lead supervisor as 'Name of Proposed Supervisor' on application - - State 'QUADRAT DTP' as Intended Source of Funding - - Select 'Visit Website' to apply now Funding Notes This project is funded by the NERC QUADRAT-DTP and is available to UK/EU nationals who meet the UKRI eligibility criteria. Please visit View Website for more information.

The studentship provides funding for tuition fees, stipend and a research training and support grant subject to eligibility.

Contact/enquiries: Dr Daniel Pincheira-Donoso MacroBiodiversity Lab School of Biological Sciences Queen's University Belfast

Daniel Pincheira-Donoso <D.Pincheira-Donoso@qub.ac.uk>

QueensU Belfast AmphibianSexualSelection

“The extinction of the sexier? A global investigation of the role of sexual selection in modern amphibian declines”

A PhD position to join the MacroBiodiversity Lab (<http://selectiondynamics.weebly.com/>) at Queen's University Belfast funded by the DfE is open for applications to start in October 2020 (funding duration: 36 months). The closing date is the 13th January 2020: <https://www.findaphd.com/phds/project/-the-extinction-of-the-sexier-a-global-investigation-of-the-role-of-sexual-selection-in-modern-amphibian-declines/?p115361> Project Description: Biodiversity is undergoing alarming declines worldwide. Modern species extinctions are predominantly attributed to environmental factors, mostly climate change and habitat destruction. However, sexual selection 'competition over mates' drives evolution of intrinsically costly traits (calls, ornaments, displays) that increase chances of population collapses, thus potentially leading to non-ecological extinctions. But, is sexual selection a factor responsible for ongoing species extinctions? Despite its enormous implications for our understanding of current and future global biodiversity, this question remains unresolved. Existing theories linking sexual selection to extinctions make contradictory predictions 'Some models suggest that sexual selection accelerates extinctions, while others suggest that it mitigates species declines. Unfortunately, empirical evidence remains limited.

This project implements the first global-scale research programme investigating whether the worldwide extinctions of one of nature's most threatened lineages, amphibians, are accelerated by the widespread evolution of a particularly costly sexual trait 'Advertisement calls, known to enhance mortality via energetic and ecological costs. Using a dataset spanning morphological, ecological, life history, genomic, climatic, geographic and phylogenetic data for 7,000+ amphibian species, this project aims to establish the mechanistic connections between sexual selection and extinctions at an unprecedented scale. This project is part of the Global Amphibian Biodiversity Project (GABiP) led by Dr Daniel Pincheira-Donoso.

This project will be supervised by Dr Daniel Pincheira-

Donoso and Dr Hansjoerg Kunc of Queen's University School of Biological Sciences.

Applications MUST be submitted through https://dap.qub.ac.uk/portal/user/u_login.php

Specific skills/experience required by applicants:

Essential skills/experience: (1) previous research experience in evolutionary biology and/or ecology; (2) confident with management, creation and quantitative analysis of data; (3) excellent communication and writing skills; (4) ability to work independently when needed; (5) a solid record of excellent academic achievements. Desired skills/experience: (1) confident with statistical analyses in R; (2) familiar with phylogenetic comparative methods.

All applicants must meet the academic entry requirements: <https://www.qub.ac.uk/courses/postgraduate-research/biological-sciences-phd.html#entry> Funding Notes Only UK and EU students are eligible to apply. Before applying, it is strongly recommended that you read the full information on eligibility criteria available from DfE: View Website < <https://www.findaphd.com/common/clickCount.aspx?theid=115361&type=-184&DID=4052&url=https%3a%2f%2fwww.economy-ni.gov.uk%2fsites%2fdefault%2ffiles%2fpublications%2feconomy%2fpost-graduate-studentships-terms-conditions-19-20.pdf> >.

Please note in particular that not all successful applicants may be eligible to receive a full studentship (i.e. fees and stipend) - please read in detail the Residency and Citizenship requirements in the document linked to above.

Contact/enquiries: Dr Daniel Pincheira-Donoso School of Biological Sciences Queen's University Belfast Daniel Pincheira-Donoso <D.Pincheira-Donoso@qub.ac.uk>

Daniel Pincheira-Donoso <D.Pincheira-Donoso@qub.ac.uk>

Rennes France ClimateAdaptation

6 Months funding of 3500 Euros for a Master project available at Rennes, France, on "Where will herbivores succeed to track the phenologies of their host trees under climate change?" Note that you can be registered at your home university.

In short: Under what conditions do communities and populations of herbivorous insects track phenologies of their host trees? Rather in a neighborhood of other host

trees or rather in isolation among non-host trees (low or high phylogenetic isolation)? Rather on trees with high or low intra-individual variability? The results will help to predict under which conditions herbivorous insects will follow the change of their hosts imposed by climate changes. The focus is on the budburst phenology of trees, but other aspects can be treated.

The project is a study on the effects of climate change that is mechanistic and experimental. We will take into account the micro evolutionary response of herbivores, and the physiology of trees. We will test micro-evolutionary responses to climate through larval mortality. The project may help to identify eco-evolutionary structures of tree communities that allow an evolutionary response of herbivores to climate change, a form of eco-evolutionary feedback. The project may also help to identify how these eco-evolutionary structures of tree communities can be used to control herbivores in a changing world. A form of applied evolutionary biology. The host lab here is the UNITE MIXTE DE RECHERCHE (UMR) ECOBIO - ECOSYSTEMES, BIODIVERSITE, EVOLUTION, co-funded by University of Rennes 1 and Centre National de la Recherche Scientifique. <https://ecobio.univ-rennes1.fr/>. The research unit has particular expertise in mechanisms of speciation, life history evolution, and adaptation, expertise at the interface between macroevolution and macroecology, expertise in ecophysiology, landscape ecology and behavioral ecology, environmental genomics, community assembly and plant/herbivore interactions. It is a large institution with several dozens of CNRS-researchers, docents and professors, plus technical staff. It was ranked A in the national evaluation of research institutions. Several further research institutions in ecology and evolutionary biology exist at Rennes. RENNES has approximately 217 000 inhabitants and is the capitol of the Bretagne region with exceptional coastal and mainland landscapes, and a french-celtic heritage (http://www.bretagne.fr/internet/jcms-TF071112_5061/tourisme). It is situated some 1.5 hours by train from Paris. English is spoken everywhere in Academia. Like in any French city, child care is excellent (almost for free, no waiting list, nearby). Several bilingual French-English schools are available at all levels of education, as well as one French-German grammar school. Please contact me if you are interested Have a good day Andreas Prinzing

Andreas Prinzing, Prof. Ecology of Diversification Research Unit "Ecobio: Ecosystems - Biodiversity - Evolution";

Team "Evolution, Structure and Dynamics of Diversity" Université de Rennes 1 / Centre National de la Recherche Scientifique

Campus de Beaulieu, Bâtiment 14 A ; 35042 Rennes, France Tél. +(33) 02 23 23 67 12- Fax: +(33) 02 99 28 50 26 - E-mail andreas.prinzing@univ-rennes1.fr https://scholar.google.com/citations?hl=en&user=w5Ogsc0AAAAJ&view_op=list_works&sortby=pubdate https://www.researchgate.net/profile/Andreas_Prinzing/research Andreas Prinzing <andreas.prinzing@univ-rennes1.fr>

SGN Frankfurt

FunctionalComparativeGenomics

Job offer Ref. # 12-19013

The Senckenberg Gesellschaft f-r 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) is a joint venture of the Senckenberg Gesellschaft f-r 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 f-r Naturforschung and the LOEWE-TBG invite applications for a

PhD position (m/f/d)

Functional Comparative Genomics of Oomycetes

(TV-H E13, half time position)

Your tasks

§Library preparation and genome sequencing using latest technologies (including oxford nanopore sequencing)

§Genome assemblies and annotation

§Comparative genomics focusing on functional aspects, such as pathogenicity genes and regulatory networks

§Pattern analyses using standard algorithms and deep learning approaches

Your profile

§Master or equivalent Diploma in biology, bioinformatics or related subjects

§Experience with handling large amounts of sequence

data

§Experience and exceptional interest in comparative genomics and evolutionary biology research

§Ability to effectively communicate and organize workflows, to closely collaborate in interdisciplinary teams

§Proficient use of the English language (C1 or native)

What is awaiting you?

§An interesting task in a dynamic team of researchers in an international research group

§Exposure to an additional 20 research groups in the LOEWE excellence centre

§A workplace close to the city center of Frankfurt, a lively and diverse city with high life quality

§Flexible working hours -company pension scheme - Senckenberg badge for free entry in museums in Frankfurt - a family-conscious personnel policy

Salary and benefits are in accordance with a public service position in Germany (collective agreement TV-H E13, 50%). The contract shall start as soon as possible and will be limited to 36 months. Equally qualified handicapped applicants will be given preference. The place of work is in Frankfurt am Main at the Senckenberg Biodiversity and Climate Research Centre (SBIK-F). The employer is the Senckenberg Gesellschaft f-r Naturforschung.

We look forward to your application!

Please send your application, mentioning the reference of this job offer (ref. #12-19013) by January15th, 2020 (deadline) by e-mail (attachment in a single pdf document) and including

- a cover letter describing your suitability and motivation

- a detailed CV

- your credentials and certificates

- and contact details of two potential references to:

Senckenberg Gesellschaft f-r Naturforschung

Senckenberganlage 25 60325 Frankfurt

E-Mail: recruiting@senckenberg.de

For scientific enquiries please get in contact with Prof. Dr. Marco Thines (marco.thines@senckenberg.de).

Mit freundlichen Gr-ßen / Best Regards

Jessica Helm Personalsachbearbeiterin

SENCKENBERG Gesellschaft f-r 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)

Mitglied der Leibniz-Gemeinschaft

Vernetzen Sie sich mit uns: www.senckenberg.de/-socialmedia recruiting <recruiting@senckenberg.de>

St Andrews Fly Evolutionary Genetics

A PhD on the evolutionary genetics of exaggerated traits in role-reversed flies is available at St Andrews, Scotland (collaborative with Stirling)

Further project details, eligibility & application procedure is available here. PLEASE note that the application deadline is 10th Jan 2020 (apologies for timeframe, there was a mix-up with advertising)

<https://www.iapetus2.ac.uk/studentships/gene-expression-and-sexual-selection-in-sex-role-reversed-flies/> Informal enquiries to Mike Ritchie mgr@st-andrews.ac.uk

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>

Stockholm Butterfly Plant Evolutionary Genomics

PhD position in Evolutionary genomics of butterfly-plant associations

A PhD position will soon be announced at the Division of Animal Ecology, Department of Zoology, Stockholm University, Sweden, as part of the project “Evolving modularity in the adaptations of phytophagous insects to their host plants”, newly funded by the Swedish Research Council.

The project aims to improve our understanding of the causal mechanisms behind the evolutionary patterns observed in insect-plant associations, and is based on the idea that adaptations to specific host plants can best be understood as “modules” of co-expressed genes and the corresponding phenotypes – in particular larval performance on different hosts.

Work in the PhD project will focus on butterflies, and will involve field collection and laboratory rearing of insects, including short-term selection experiments, as well as genomic analysis of in particular RNA-sequencing data. Experience from rearing and genomics of non-model insects will thus be particularly meriting.

The position is for four years full time. To be eligible you need a degree corresponding to at least four years of higher education, including an independent project at an advanced level in animal ecology, evolutionary biology or similar subject (i.e. a Master’s degree or similar).

The project will be supervised by Prof. Sören Nylin:

<https://www.su.se/english/profiles/snylin-1.183643> and co-supervised by Prof. Niklas Janz:

<https://www.su.se/english/profiles/janz-1.182966> Informal inquiries and expressions of interest are welcome to soren.nylin@zoologi.su.se. The formal application process is not yet open.

Soren Nylin Professor i Zoologisk Ekologi/Professor of Animal Ecology Biology Section Dean

Department of Zoology Stockholm University S-106 91 Stockholm SWEDEN

Soren.Nylin@zoologi.su.se

Soren Nylin <soren.nylin@zoologi.su.se>

Taipei Taiwan Evolutionary Genomics

Funded master's positions in evolutionary genomics in Taiwan (application deadline: January 24, 2020)

Two master's positions with two-year stipends are available in the Microbial Eukaryote Evolution and Ecology group led by Dr. Chuan Ku (<https://chuanku-lab.github.io/kulab/>) at the Institute of Plant and Microbial Biology, Taipei, Taiwan.

The Microbial Eukaryote Evolution and Ecology group was established in 2019 and focuses on 1. evolutionary history of marine microalgae (which account for half of carbon fixation worldwide), 2. genome regulation and evolution of giant viruses infecting diverse eukaryotes, and 3. dissecting microbial interactions using single-cell omics approaches. The master's research topic can be any of these and will be decided after discussion with the group leader.

Successful applicants will be enrolled at top Taiwanese universities the lab is affiliated to. Courses (taught in English) in molecular evolution, genomics, genetics, microbiology, ecology, bioinformatics, or related fields will be completed in the first year. The research proposal is expected to be finished by the end of the first semester and all students should aim to present their works at a conference by the last semester as one of the graduation requirements.

Application requirements: 1. a degree (received in 2020 or earlier) in biology, natural sciences, informatics or any related field 2. English proficiency for reading, writing, and oral communication 3. 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: - programming skills - knowledge in microbiology, molecular biology or cell biology - research experience in related fields 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.

Expected duration: September 2020 to August 2022
Stipend: ~500 USD/month (merit-based scholarships up to ~1,000 USD/month are available from the Taiwanese government or universities)

To apply, please send an email (the earlier the better)

with the subject IPMB_application_master_YourName directly to Chuan Ku, briefly describing your research interests, experience, skills, future plan, your Skype username, and contact details of at least one referee. A single PDF should be attached that includes your CV, transcripts, and, if available, degree certificate, bachelor's thesis title and abstract, and proofs of relevant skills and experience.

Inquiries about PhD or 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> "chuanku@gate.sinica.edu.tw" <chuanku@gate.sinica.edu.tw>

TrentU Canada Conservation Genetics

Graduate Opportunity in Applied Conservation Genetics

Supervisor: Dr. Joanna Freeland, Dept. of Biology, Trent University

The magnolia tree *Magnolia acuminata*, commonly referred to as the Cucumber Tree, is a forest canopy species growing in remnants of the Carolinian forest in southern Ontario, where it is classified as endangered. Previous research that was based on the population genetics of extant populations found that saplings had lower genetic diversity than mature trees, which raises a concern for the long-term sustainability of populations (<https://link.springer.com/article/10.1007/s10592-015-0746-9>). This graduate project will build on earlier research by collaborating with the Carolinian Canada Coalition and other partners to develop a plan for supplementing existing populations with genetically diverse saplings. The research will involve genotyping saplings and working with partners to develop a restoration plan in which trees will be planted in a manner that should maximize the genetic diversity of future generations.

Applicants should have an interest in conservation genetics, molecular analyses, and collaborations among academic and management groups. Candidates must have completed a BSc (or BSc + MSc) degree in biology, with some lab genetics experience preferred but not essential. Interested candidates should contact Joanna Freeland (joannafreeland@trentu.ca) for more informa-

tion, or send (via e-mail) a statement of research interests and related experience, plus a copy of their current CV and academic transcripts.

Joanna Freeland <joannafreeland@trentu.ca>

TulaneU EvolutionaryBiology

'Plus One' MS opportunities in Ecology and Evolutionary Biology at Tulane University.

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

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

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

(1) Research, in which students work closely with a tenured or tenure-track faculty mentor, with the goal of strengthening research capacity and potentially producing a peer-reviewed publication; these students typically use this track as a steppingstone to a Ph.D. program in Ecology and Evolutionary Biology or a related field. (2) Pedagogy, in which students work closely with one or more teaching faculty mentors, with the goal of strengthening teaching experience and skills, including the option to serve as an Teaching Fellow in EBIO 1010, Diversity of Life; these students typically go on to teach at the high school or elementary school level or otherwise engage in educational activities. (3) Knowledge base, in which students work with the Graduate Studies coordinator or other faculty member to identify courses required to bolster transcripts and knowledge base; these students

typically go on to apply to professional degree programs such as law, medical, or veterinary schools or join the workforce.

We have established a strong track record of assisting Plus One students to meet their professional and educational goals. Recent graduates from the program are currently in highly regarded PhD programs, law schools, medical schools and vet schools; teaching in high schools; and working in industry and governmental and non-governmental agencies.

Our department houses a strong team of outstanding researchers and educators, with established strengths in coastal and tropical systems. We are committed to promoting diversity in STEM, and particularly welcome applications from members of groups that are traditionally under-represented in the field of Ecology & Evolutionary Biology.

Students are encouraged to directly contact the faculty member or members they are interested in working with as advisors.

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

Dr. Dorothy Cheruiyot (Email: dcheruiyot@tulane.edu), a Professor of the Practice who can advise students interested in pedagogy, as well as students in research on plants and animal interactions, elemental defense, biointeraction between elements and organic defense chemicals, and the trophic transfer of elements.

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

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

Dr. Hannah Frank (Email: hannah.kim.frank@gmail.com; Web: <https://www.hkfrank.com>), whose research focuses on evolutionary ecology, molecular evolution and evolutionary immunology, particularly in bats.

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

Dr. Alex Gunderson (Email: agunderson@tulane.edu;

<http://www.physiological ecology.com>), who works with physiological and

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TUMunich Population Genomic Plant Pathogens

The Chair of Phytopathology at the Technical University of Munich, TUM School of Life Sciences, hires a PhD Student in the field of Population genomics of pathogens on wild tomato species.

We are interested in understanding the diversity and evolution of pathogens and pathogen resistance in relatively short time scales, therefore we study different populations from a diverse and geographically differentiated tomato species, *Solanum chilense*. We have shown that these populations show different levels of defence against a range of pathogens. For this project we have collected hundreds of strains of naturally occurring pathogens (*Alternaria* spp.) from *S. chilense* plants throughout the species range in Chile and Peru.

We are now looking for an enthusiastic PhD student assess genetic diversity of the collected strains using whole genome sequencing (ONT) to study adaptation of the pathogen to the different host populations. The applicant must have a very good MSc in biology, bioinformatics or related disciplines. Knowledge of and practical experience in sequence analyses or population genetics and keen interest in molecular plant pathology are required.

The project will be carried out in the group of Dr. Remco Stam at the Chair of Phytopathology (Prof. Dr. Ralph Hüekelhoven). The chair hosts several research groups studying biology of plant pathogens. In addition, we have several ongoing collaborations on campus (including the large SFB924 project) and direct access to state of the art technology for next generation sequencing, diverse molecular biology techniques and extensive glass house facilities.

The Technical University of Munich wishes to increase the percentage of employed women. Women are therefore explicitly encouraged to apply. Handicapped per-

sons with equivalent qualification will be given preference. The salary is according to German income level TV-L E13.

Please send your comprehensive application including a letter of motivation (1 page), your CV, certificates, list of publications, and names of 2 potential referees as a single pdf file by email to Dr. Remco Stam: stam@wzw.tum.de For informal inquires about the project, contact Dr. Remco Stam directly as well.

The position is to be filled as soon as possible. Reviewing of applications will start 6 January 2020

Remco Stam <stam@wzw.tum.de>

UArkansas NeuroEvoDevo

The Nakanishi lab at the University of Arkansas (<https://wordpress.uark.edu/nakanishi-lab/>) seeks applicants interested in pursuing a MS or PhD in evolutionary developmental biology of animals to start in the Fall of 2020. Current research in the lab focuses on understanding conserved and divergent mechanisms of nervous system development in cnidarians 'V sea anemones and jellyfish in particular. Student's specific projects will be developed in consultation with the PI of the lab, taking into account student's research interests and educational background. The projects may involve gene expression analyses (e.g. in situ hybridization and immunohistochemistry), reverse genetics (e.g. CRISPR-Cas9), embryology (e.g. descriptive morphology, cell-lineage tracing and tissue transplantation), genomics (e.g. RNA-seq and ChIP-seq), and/or advanced microscopy (confocal and electron microscopy, and live-cell imaging). Research and teaching assistantships are available.

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

Application: please submit by email 1) a description of your research interests, 2) a CV, 3) unofficial copies of academic transcripts and GRE scores (if available), and 4) contact information for 2 references to: nnakanis@uark.edu. Nagayasu Nakanishi, Ph.D

Nagayasu Nakanishi, Ph.D Assistant Professor

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

UCambridge ConservationProjects

The University of Cambridge Climate, Life and Earth (C-CLEAR) Doctoral Training Partnership (funded by NERC) is open for applications for students wishing to start PhD research in October 2020. The closing date is January 7th at noon. Supervisors have posted PhD project descriptions, and you are invited to view the ones in the area of biology and conservation here:

<http://nercdtp.esc.cam.ac.uk/programme/biology-and-conservation> Projects within this theme are available with lead supervisors in Archaeology, DAMTP (Maths), Earth Sciences, Genetics, Geography, Plant Sciences and Zoology, and the British Antarctic Survey.

You can find projects with a particular supervisor or keyword using the searchable list (<http://nercdtp.esc.cam.ac.uk/programme/project-list>)

NERC funding is available to UK/EU students, however other sources of funds may be available. Whatever your funding status, if you are interested in a project, you are strongly urged to contact potential supervisors for more information.

– Yvonne Gibbs Cambridge C-CLEAR & ESS NERC DTP Administrator Room 212A Department of Earth Sciences Downing Site Cambridge CB2 3EQ

dtp-admin@esc.cam.ac.uk 01223 768338

My normal working hours are Tuesday, Wednesday and Thursday from 8:30-3:00

You can find Information on how we use your personal information on the webpages below: Students: [https://-
www.information-compliance.admin.cam.ac.uk/-
data-protection/student-data](https://www.information-compliance.admin.cam.ac.uk/-data-protection/student-data) Staff: [https://-
www.hr.admin.cam.ac.uk/hr-staff/hr-data/how-
we-handle-your-personal-data](https://www.hr.admin.cam.ac.uk/hr-staff/hr-data/how-we-handle-your-personal-data) Visitors: [https://-
www.information-compliance.admin.cam.ac.uk/-
data-protection/general-data](https://www.information-compliance.admin.cam.ac.uk/-data-protection/general-data) DTP Administrator
<dtp-admin@esc.cam.ac.uk>

UCanterbury NZ SexualSelectionGeneExpression

PhD Project on the role of sexual selection in the evolution of sex-biased gene expression

The Flanagan Lab at the University of Canterbury, New Zealand, is seeking outstanding applicants for a fully-funded PhD position to study sexual selection and transcriptomics. The position is part of a project titled “Does sexual selection drive the evolution of sex-biased gene expression”. The project is funded to study sexual selection in sex-role reversed pipefish and link quantitative estimates of sexual selection to the evolution of gene expression in males and females. As such, the project contains opportunities for comparative behavioural studies and comparative transcriptomic studies. The research project includes collaborators from Monash University and the University of British Columbia. The successful candidate will be fully funded, including research costs, with a stipend of NZD\$27,500 for three years plus payment of tuition fees and associated service charges.

Start date: Mid-2020, but this is flexible.

The Flanagan lab: My group studies how and why complex traits and behaviours evolve, with a focus on sexually selected traits. We use a number of different methods to address these broad questions: studies of relevant traits and selection on those traits; genomic studies of signatures of selection; and theoretical simulation studies. For more information, please see the lab website: <https://flanagan-lab.github.io/>. My lab is inclusive, welcoming, and committed to advancing diversity; I welcome everyone regardless of their nationality, ethnicity, colour, socioeconomic background, gender identity, sexual orientation, religion, and age. I especially encourage members of historically underrepresented groups including (but not limited to) people of colour, women, veterans, and people from socioeconomically disadvantaged communities to inquire about opportunities and apply to join my group.

Eligibility: I seek a PhD candidate with a demonstrated high level of academic achievement at the undergraduate and/or postgraduate level. The candidate is required to have a BSc with Honours (or equivalent) or a Masters degree to enrol as a PhD candidate at the University of Canterbury. See the University eligibility requirements

for more detail: <https://www.canterbury.ac.nz/enrol/-doctoral/apply/> The ideal candidate will have research experience in behavioural ecology, evolutionary biology, and/or genomics/transcriptomics. Previous experience with programming (e.g., R, C/C++, python), analysis of genomic or transcriptomic data, and/or molecular techniques is preferred.

The University: The University of Canterbury is located in Christchurch, the largest city in New Zealand's South Island. The University has approximately 13,000 students and 2,000 postgraduate students enrolled. The University's modern and well-equipped facilities are spread across a spacious suburban campus, with easy access to the city and the cultural and recreational facilities it provides. There is also good access to the scenic and recreational resources of the Southern Alps and Banks Peninsula.

Application: To apply, please email a cover letter that addresses your research interests and experience, CV, academic transcripts, and the email addresses of three scientific referees to: Dr. Sarah Flanagan, School of Biological Sciences, University of Canterbury, Christchurch, New Zealand, sarah.flanagan@canterbury.ac.nz. The review of applications will begin 1 February 2020.

"sarah.flanagan@canterbury.ac.nz"
<sarah.flanagan@canterbury.ac.nz>

UCopenhagen 2 InsectPathogenicFungi

PhD positions in the evolutionary ecology of fungus-insect interactions

Two PhD positions to work on interactions between insect-pathogenic fungi, Microsporidia and insects are available in the Applied Evolutionary Ecology research group (AEE) at University of Copenhagen. (<https://plen.ku.dk/english/research/organismal.biology/aee/>).

The first position deals with the "Nutritional and thermal adaptation of insect-pathogenic fungi". This is a 3 year PhD project, in collaboration with Reader in Ecology, Dr. Steve Sait, School of Biology, University of Leeds, UK, and Pathogen Ecologist, Dr. Helen Hesketh, UK Centre for Ecology & Hydrology (UKCEH), Wallingford, UK. The deadline for application is January 10, 2020.

The second project will investigate "Host manipulation and co-evolutionary processes of pathogenic fungi and

microsporidia". This is a 3 years project, in collaboration with Senior Lecturer, Dr. Bryony Williams, Biosciences, University of Exeter, UK. The deadline for application is January 10, 2020. Both positions are part of a large Double Degree Programme called INSECT DOCTORS (<https://www.insectdoctors.eu/en/insectdoctors.htm>), funded by the European Commission and involving 15 PhD positions in total.

You can find full details about the two projects and how to apply here: Position 1: <https://jobportal.ku.dk/phd/?show=3D150846> Position 2: <https://jobportal.ku.dk/phd/?show=3D150859> If you are interested in both positions, you need to apply to each position with two independent applications. You can contact Associate Professor Henrik H. De Fine Licht directly if you have any questions.

Email hhdefinlicht@plen.ku.dk

Research within the Applied Evolutionary Ecology (AEE) research group centre's around evolutionary ecology defined as a field within both ecology and evolution that examines how interactions between and within species evolve. Understanding the evolutionary effects of organism interactions is of fundamental significance in ecology, evolution, agriculture and human health. We study how antagonistic (pathogenic) and beneficial (mutualistic) fungal symbionts are shaped by host ecology and evolution, how ecological and evolutionary factors determine the species-range partners interact with, and how new species interactions are established, for example through partner-shifts. We mainly use molecular and applied bioinformatics coupled with experimental work. Our work is fundamental in nature, but of applied significance for example for biological control and pathogen host shifts.

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

Website <https://sites.google.com/site/henrikdefinlicht/> hhdefinlicht@plen.ku.dk

UCopenhagen MicrobeHostInteractions

Ph.D. scholarship Section of Microbiology, Department of Biology, Faculty of Science at University of Copenhagen is offering a PhD scholarship in microbe-host interactions commencing 1.4.2020 or as soon as possible thereafter. <https://candidate.hr-manager.net/ApplicationInit.aspx/?cid=1307&departmentId=18965&ProjectId=150891&MediaId=5&SkipAdvertisement=false>

Project description This Ph.D. project examines the effects of microbial interactions on host fitness, within an Evolutionary Medicine framework. The Ph.D. student will test whether the bacterium *Helicobacter pylori* protect against obesity in a mouse model. *H. pylori* is renowned for causing stomach ulcers and 'V' cancer, but can also protect against the development of asthma and allergies. This complex relationship is shaped by thousands of years of co-evolution. Infection affects immune system development, the composition of the distal gut microbiome and the production of hunger-regulating hormones. The Ph.D. student will explore the effects of early life infection on host metabolism, with a particular focus on identifying the role of interactions between *H. pylori* and the gut microbiome. Techniques include mouse experimental work, gut microbiome sequencing, flow cytometry, and host tissue transcriptomics.

The position is for 3 years and the project will be carried out at Section of Microbiology, Department of Biology, University of Copenhagen where you will engage in teamwork within the group and with national and international collaborators. The position is funded by a Sapere Aude grant from the Independent Research Council Denmark to PI Sandra Breum Andersen with the objective of studying intra- and interspecies interactions involving *H. pylori*.

Qualifications: We are looking for a highly motivated and ambitious researcher in evolutionary microbiology. Applicants should have some of the following qualifications, and an interest in acquiring the rest:

M.Sc. degree in microbiology, evolutionary biology, biotechnology, immunology, or a closely related field- Experience with basic microbiological and molecular techniques Certification for mouse experimental work- Bioinformatics skills for analyses of transcriptome and

16S microbiome data Experience with flow cytometry Fluency in English

For further information, contact: Assistant Professor Sandra Breum Andersensandersen@bio.ku.dk

Terms of employment The position is covered by the Memorandum on Job Structure for Academic Staff. Terms of appointment and payment accord to the agreement between the Ministry of Finance and The Danish Confederation of Professional Associations on Academics in the State. The starting salary is currently at a minimum DKK 325.625 (approx. pounds 43,400) including annual supplement (+ pension up to DKK 44,980). Negotiation for salary supplement is possible.

Application Procedure The application, in English, must be submitted electronically by clicking APPLY NOW below.

Please include

Motivated letter of application, Curriculum Vitae Diploma and transcripts of records (BSc and MSc) Other information for consideration, e.g. list of publications (if any), Full contact details (Name, address, telephone & email) of 1-3 professional referees

The University wishes our staff to reflect the diversity of society and thus welcomes applications from all qualified candidates regardless of personal background.

The deadline for applications is January 6th, 2020, 23:59 GMT +1.

Procedures After the expiry of the deadline for applications, the authorized recruitment manager selects applicants for assessment on the advice of the Interview Committee. Afterwards an assessment committee will be appointed to evaluate the selected applications. The applicants will be notified of the composition of the committee and the final selection of a successful candidate will be made by the Head of Department, based on the recommendations of the assessment committee and the interview committee.

The main criterion for selection will be the research potential of the applicant and the above mentioned skills. The successful candidate will then be requested to formally apply for enrolment as a PhD student at the PhD school of Science. You can read more about the recruitment process at <http://employment.ku.dk/faculty/-recruitment-process/> . General information about PhD programmes at SCIENCE is available at <http://www.science.ku.dk/phd> . If you consider applying from abroad, you may find useful information on how it is to work in Denmark and at UCPH in this links:

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UCopenhagen MicrobialEvolutionaryMedicine

Ph.D. scholarship Section of Microbiology, Department of Biology, Faculty of Science at University of Copenhagen is offering a PhD scholarship in microbe-host interactions commencing 1.4.2020 or as soon as possible thereafter.

<https://candidate.hr-manager.net/-ApplicationInit.aspx/?cid=1307&departmentId=18965&ProjectId=150891&MediaId=5&SkipAdvertisement=false>

Project description
This Ph.D. project examines the effects of microbial interactions on host fitness, within an Evolutionary Medicine framework. The Ph.D. student will test whether the bacterium *Helicobacter pylori* can protect against obesity in a mouse model. *H. pylori* is renowned for causing stomach ulcers and 'V cancer, but can also protect against the development of asthma and allergies. This complex relationship is shaped by thousands of years of co-evolution. Infection affects immune system development, the composition of the distal gut microbiome and the production of hunger-regulating hormones. The Ph.D. student will explore the effects of early life infection on host metabolism, with a particular focus on identifying the role of interactions between *H. pylori* and the gut microbiome. Techniques include mouse experimental work, gut microbiome sequencing, flow cytometry, and host tissue transcriptomics.

The position is for 3 years and the project will be carried out at Section of Microbiology, Department of Biology, University of Copenhagen where you will engage in teamwork within the group and with national and international collaborators. The position is funded by a Sapere Aude grant from the Independent Research Council Denmark to PI Sandra Breum Andersen with the objective of studying intra- and interspecies interactions involving *H. pylori*.

Qualifications: We are looking for a highly motivated and ambitious researcher in evolutionary microbiology. Applicants should have some of the following qualifications, and an interest in acquiring the rest:

M.Sc. degree in microbiology, evolutionary biology,

biotechnology, immunology, or a closely related field
Experience with basic microbiological and molecular techniques
Certification for mouse experimental work
Bioinformatics skills for analyses of transcriptome and 16S microbiome data
Experience with flow cytometry
Fluency in English

For further information, contact: Assistant Professor Sandra Breum Andersen sbandersen@bio.ku.dk

Terms of employment The position is covered by the Memorandum on Job Structure for Academic Staff. Terms of appointment and payment accord to the agreement between the Ministry of Finance and The Danish Confederation of Professional Associations on Academics in the State. The starting salary is currently at a minimum DKK 325.625 (approx. pounds 43,400) including annual supplement (+ pension up to DKK 44,980). Negotiation for salary supplement is possible.

Application Procedure The application, in English, must be submitted electronically by clicking APPLY NOW below.

Please include Motivated letter of application, Curriculum Vitae Diploma and transcripts of records (BSc and MSc) Other information for consideration, e.g. list of publications (if any), Full contact details (Name, address, telephone & email) of 1-3 professional referees

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The main criterion for selection will be the research potential of the applicant and the above mentioned skills. The successful candidate will then be requested to formally apply for enrolment as a PhD student at the PhD school of Science. You can read more about the recruitment process at <http://-employment.ku.dk/faculty/recruitment-process/> . General information about PhD programmes at SCIENCE is available at <http://www.science.ku.dk/phd> . If you consider applying from abroad, you may find

useful information on how it is to work in Denmark and at UCPH in this links: <http://ism.ku.dk>, <https://www.nyidanmark.dk/en-us/frontpage.htm> and

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UEA Norwich CellDevelopmentComputationalBiol

Ph.D Studentships in Cell and Developmental Biology / Computational biology are available as part of NEUcrest is a four-year project, funded by the European Union Horizon 2020 Programme.

The neural crest is an essential stem cell population of the vertebrate embryos. The project focuses on integrating academic, clinical and industrial research for a better understanding of neural crest development and neural crest related diseases. The NEUcrest network comprises 20 partners in academia, industry and hospitals from seven European countries.

<https://www.euraxess.mk/jobs/467270> Two positions are available at the University of East Anglia, Norwich, in Prof Grant Wheeler laboratory: <https://euraxess.ec.europa.eu/jobs/447869> Modelling Neurocristopathies in Xenopus, mechanisms and drug screening <https://www.euraxess.fo/jobs/461086> Micro RNA regulation of neural crest development

Deadline for application is December 16th 2019.

For further information please contact Grant Wheeler (Grant.Wheeler@uea.ac.uk)

Modelling Neurocristopathies in Xenopus, mechanisms and drug screening Neurocristopathies. These pathologies are a major group of congenital diseases in human, and a heavy societal concern. The NEUcrest network comprises 20 partners in academia, industry and hospitals from seven European countries, gathered in a synergistic effort to advance knowledge and outreach about these diseases.

The adrenal gland is derived from NC and mesodermal lineages. Disorders of the adrenal glands can lead to congenital neuroendocrine anomalies, autoimmune disease, neurocristopathies and tumors such as neuroblastoma. The embryology of this organ has not been

well-studied; therefore, it has been difficult to correlate developmental gene-function interactions and identify novel disease variants. In this project the student will:

- 1) determine a temporal and spatial map of the development of the adrenal gland during Xenopus embryogenesis including how the NC contributes to its development.
- 2) generate novel assays for gene discovery and function of diseases associated with the adrenal gland. Potential syndromes to look at include Allgrove syndrome and Von Hippel-Lindau syndrome. Assays will include gene knockdown by morpholino or CRISPR/Cas9 and measurement of adrenaline and noradrenaline levels.
- 3) carry out a small molecule enhancer/suppressor screen on an adrenal gland Xenopus model line generated by the student.

The student will gain skills in molecular biology, embryology, in vivo biology and chemical biology. In addition, training for transverse skills in outreach and industrial managements are deeply embedded in the ITN programme.

Micro RNA regulation of neural crest development MicroRNAs (miRNAs) are short, non-coding RNAs around 22 nucleotides in length that inhibit gene expression by translational repression or by causing degradation of target mRNAs. Some genes associated with miRNA production are deleted in neurocristopathies (e.g. DGCR8 in DiGeorge Syndrome). We have identified two microRNAs (miR-196a and miR-219) expressed in the early neural crest. Our preliminary studies show that knockdown of either miRNA in the model organism *Xenopus tropicalis* (African clawed frog) causes a loss of neural crest tissue and are therefore predicted to target genes involved in NC specification. In this project the student will identify potential targets of miR-196a and 219, validate possible targets using cell-based luciferase assays and knockout of target sites in specific genes by CRISPR/Cas9 and determine where miR-196a and 219 act in the gene regulatory network for NC development.

The student will gain skills in molecular biology, embryology, in vivo biology and chemical biology. In addition, training for transverse skills in outreach and industrial managements are deeply embedded in the ITN programme.

The start date is flexible and it will be possible for the successful candidate to start prior to 1 April 2020, but applicants should discuss this with Dr Wheeler in the first instance.

Interviews will be held week commencing 6 January 2020.

Funding notes

This project is awarded with a 3-year PhD scholarship through the Horizon 2020 Marie Skłodowska-Curie Actions - Innovative Training Networks (ITN) Programme (No. 860635, pending Grant Agreement Signature). EU applicants are eligible to apply who have not been based in the UK for more than 12 months in the last 3 years. Remuneration will be in line with the Marie Skłodowska-Curie guidelines (Early Stage Researchers, ITN). For programme, funding information and eligibility criteria please visit:

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UEdinburgh ParasiteEvolution

A studentship on “The evolutionary ecology of disease transmission: how will vector control programmes change parasite life histories?” is available in the Reece Lab, University of Edinburgh, UK. This studentship is available to start ASAP rather than in Autumn 2020.

More details can be found here, including eligibility criteria and how to apply [deadline 10th Jan 2020]:

<https://www.findaphd.com/phds/project/the-evolutionary-ecology-of-disease-transmission-how-will-vector-control-programmes-change-parasite-life-histories/?p114770> The Reece lab uncovers the strategies parasites have evolved to cope with the challenges of their lifestyle and to exploit the opportunities it brings, by asking “what makes a successful parasite and what are the evolutionary limits to their success?”. Specifically, we investigate how parasites maximise “survival” and “reproduction”. These fitness components underpin the severity and transmission of diseases.

Most disease research focuses on interactions between parasites and their hosts. Analogous studies of interactions between parasites and vectors have been largely neglected, despite the fact that vectors are responsible for spreading disease. Clearly, to fully understand the evolution of vector-borne parasites it is necessary to ask how they solve the challenges of living in hosts and in vectors. This is especially important for malaria parasites whose vectors are changing in response to vector-control programs (e.g., bed nets, insecticides). Whilst the evolutionary responses of malaria-transmitting mosquitoes to vector-control are being monitored, the knock-on consequences for parasite evolution have been overlooked. Just like drugs or vaccines administered to hosts, vector-control represents an ecological perturbation aimed at reducing parasite fitness. History clearly illustrates that attempts to reduce the survival and/or transmission of malaria parasites is usually met with counter-evolution (e.g., drug resistance mutations and phenotypic tolerance). Parasite counter evolution to vector-control may be constrained or facilitated, depending on the amount of genetic variation and plasticity underpinning parasite phenotypes. Anticipating parasite evolution will inform monitoring strategies for current control programs as well as uncovering novel new vector-control strategies.

For informal enquiries, please contact Sarah [sarah.reece@ed.ac.uk]

Professor Sarah Reece Chair of Evolutionary Parasitology

Institute of Evolutionary Biology & Institute of Immunology and Infection Research, School of Biological Sciences, Ashworth Laboratories, University of Edinburgh, Edinburgh EH9 3FL Scotland, UK Tel +44 131 650 5547 Fax +44 131 650 6564

sarah.reece@ed.ac.uk reearchers.com

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

Sarah.Reece@ed.ac.uk

UGlasgow BatSatelliteVirus

PhD position: Cross-species transmission of bat-associated satellite viruses

A fully-funded 4-year PhD studentship on the biology, epidemiology, and evolution of satellite viruses is available in the Streicker Group at the University of Glasgow, UK.

Satellite viruses are hyperparasites that require a fully-functioning, unrelated ‘helper virus’ to spread between cells and individual host. This obligatory dependence on a second virus should constrain the ability of satellites to switch host species; however, we recently discovered a satellite virus in South American bats that appears to be capable of switching host species and helper viruses. This is important since satellites generally alter the virulence of their helper viruses so could effectively function

as host-jumping virulence factors that act on a variety of viruses. We currently understand neither the extent to which satellites jump between species nor how they establish associations with new host species or helper viruses. This PhD will use a combination of in vitro experiments, field studies on wild bats in Peru, and metagenomic sequencing to understand the mechanisms that allow satellite viruses to switch species and the risks they may pose to humans and livestock. The exact balance of laboratory/field/bioinformatic projects will depend on the experience and interests of the successful candidate.

We seek a candidate who is passionate about exploring new biological processes and integrating research across biological scales - from cells to populations to species. The successful candidate should have a strong background in at least one of the following: bioinformatics, laboratory virology, wildlife disease ecology or evolution, but must be motivated to work across disciplines.

The student will work in a vibrant community of ecologists, epidemiologists and evolutionary biologists at the Institute of Biodiversity, Animal Health and Comparative Medicine and virologists and bioinformaticians at the MRC-University of Glasgow Centre for Virus Research. Glasgow is the largest city in Scotland and the third largest in the UK. It is a UNESCO City of Music, a 2018 New York Times Top 10 holiday destination, and located in close proximity to Scottish highlands which offer world class hiking and outdoor activities. It is also the top city in Europe for openness, tolerance and trust.

The supervisory team includes Dr Daniel Streicker (infectious disease ecologist), Dr Laura Bergner (molecular ecologist), Dr Richard Orton (bioinformatician) and Dr Arvind Patel (virologist).

This PhD is funded through a new Wellcome Trust Integrative Infection Biology Programme at the University of Glasgow. UK/EU or International students are eligible, but must have first or upper second class UK honours degree, or the international equivalent. While not a strict requirement, a masters degree in a related field is recommended. Details of the program structure and eligibility criteria can be found at: <https://www.gla.ac.uk/-colleges/mvls/graduateschool/wellcomephd/> Application deadline: Tuesday 14 January 2020 Studentship commencement date: 1 October 2020 Annual stipend (2020/21 rate): 19,919

For informal enquiries, please contact Daniel Streicker [daniel.streicker@glasgow.ac.uk]

Dr Daniel Streicker Wellcome Senior Research Fellow

Institute of Biodiversity, Animal Health and Comparative Medicine MRC-University of Glasgow Centre for

Virus Research University of Glasgow Glasgow G12 8QQ Scotland, UK Tel: +44 (0) 141 330 6632 <https://streickergroup.wordpress.com/> The University of Glasgow is a charitable body registered in Scotland, Charity Number SC0044

Daniel.Streicker@glasgow.ac.uk

UGlasgow UEdinburgh AnthraxGenomicEpidemiology

PhD project: Leveraging pathogen genomics and phylogenetics to control endemic anthrax

We are seeking applicants for a 4-year PhD position in One Health and genomic epidemiology, jointly supervised by investigators at the University of Glasgow and the University of Edinburgh. The position is open to UK, EU and international applicants.

Recent advances in sequencing technology have revolutionised our ability to track infectious disease dynamics using pathogen genomes, such as during outbreak investigations [1]. However, these tools remain underutilised for addressing endemic disease threats, especially those affecting human and animal health in low-resource settings. Anthrax is a classic example of a neglected bacterial zoonosis, affecting marginalised communities in many parts of the global south, including much of Sub-Saharan Africa [2]. It causes significant mortality in people as well as livestock losses, but tends to be undiagnosed and underreported [3]. Although vaccination of livestock plays a key role in preventing infection in both people and animals, it is often not affordable. Moreover, because the spores of the anthrax bacterium *Bacillus anthracis* can remain infectious within the environment for decades, it is not clear how long livestock vaccination would have to be maintained before a measurable reduction in infection risk is achieved. Obtaining genome data from detected cases, and incorporating genomic and epidemiological data into phylodynamic models [4], provides a novel and powerful means to track residual anthrax transmission and quantify progress towards its elimination.

This project aims to create the necessary framework for guiding anthrax control programmes in endemic settings through the use of pathogen genomics and phylodynamic modelling.

Specific objectives are to: 1) Extend current analytical tools and molecular clock models to accommodate the

alternation between extended environmental persistence and periodic rapid replication typical for *B. anthracis*; 2) Develop a simulation model combining genomic, spatial, temporal and epidemiological information to examine the effect of vaccination on *B. anthracis* genetic diversity and transmission in silico; 3) Validate this model by generating genomic data obtained during a livestock vaccination program expected to start in the study area in 2020.

Supervisors Dr Roman Biek (Reader, University of Glasgow), whose primary research interest is infectious disease ecology. He has wide-ranging experience in quantitative and phylogeographic approaches incorporating both spatio-temporal and genomic sequence data.

Dr Samantha Lycett (Group Leader, University of Edinburgh) has expertise in pathogen phylodynamics and population modelling. She brings to the project extensive experience in developing new computational tools and models to gain epidemiological insights from pathogen genome data and guide control efforts (e.g. eradication of bovine diarrhoea virus from UK farms).

Dr Taya Forde (BBSRC Future Leader Fellow, University of Glasgow) is a molecular epidemiologist with a particular interest in the transmission dynamics of bacterial zoonoses. She has led the collection of long-term genomic data from cases of animal and human anthrax in Tanzania and brings expertise in the genomics of *Bacillus anthracis*.

Dr Tiziana Lembo (Senior Lecturer, University of Glasgow) is a field veterinary scientist with an interest in applied infectious disease epidemiology in complex multi-host environments. She has a long track record of productive collaborative research in Tanzania, including in the area of One Health interventions, and has been helping support Tanzanian stakeholders in developing vaccination campaign strategies.

The student will thus benefit from a highly multidisciplinary supervisory team. They will be primarily based at the University of Glasgow's Institute of Biodiversity Animal Health and Comparative Medicine (BAHCM), at the main campus (Gillmorehill). The Institute provides a rich and collaborative research environment with a strong track record of applying evolutionary and quantitative approaches to One Health problems.

Combined, this supervisory group has the available research platform and expertise to guide the student in developing novel approaches that capitalise on epidemiological and genomic data to gain insights into pathogen dynamics towards informing anthrax control efforts. The student will greatly benefit from expertise, networks and opportunities at both Universities. The student will de-

velop core skills in bioinformatics, phylodynamics and population modeling and gain familiarity with the fields of bacterial genomics, neglected zoonotic diseases, One Health and intervention studies.

The project builds on robust partnerships and research platforms established in northern Tanzania by the Glasgow supervisors, including existing genomic and epidemiological data. It also brings together

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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>

UGottingen TreeGeneticDiversity

The Department of Forest Genetics and Forest Tree Breeding at the der Georg-August-University of Göttingen is offering a position starting as soon as possible for a

Research Scientist (doctoral student) - Salary is E13 TV-L (65%)

The position is limited to 36 months. The successful candidate will work in the German Science foundation (DFG) funded project: "Genetic diversity in key regulator genes and their association with environmental, forest management and biodiversity gradients" in the framework of the Biodiversity exploratories.

Your tasks - Analyse how genetic diversity in foundation tree species (European beech, Norway spruce) responds to changes in land use intensity and how it relates to fungal, animal and microbial diversity and to abiotic factors - Identification of candidate genes for adaptive traits such as flowering time, bud burst or drought stress tolerance - Assist with sampling of plant material in three regions of Germany - Investigate the relationship between adaptive genetic diversity and survival/fitness in beech translocation experiments - Publication of results in peer-reviewed journals - Assistance with the organization and coordination of the project

Your profile - Master degree in biology, agricultural sciences, forest sciences or related disciplines - High motivation and enthusiasm - Sound knowledge and understanding of molecular and genetic methods - Experience and profound knowledge in statistics and data analysis - Excellent English language skills - Very good written

and oral communication skills - Ability to work in a team

The University of Göttingen is an equal opportunities employer and places particular emphasis on fostering career opportunities for women. Qualified women are therefore strongly encouraged to apply in fields in which they are underrepresented. The university has committed itself to being a family-friendly institution and supports their employees in balancing work and family life. The mission of the University is to employ a greater number of severely disabled persons. Applications from severely disabled persons with equivalent qualifications will be given preference. Please send your application with the usual documents (in electronic form preferably in a single PDF-file) until January 15; 2020:

Georg-August-Universität Göttingen, Abt. für Forstgenetik und Forstpflanzenzüchtung, Bispingenweg 2, 37077 Göttingen, forstgen@gwdg.de.

If you have any questions, please contact: Prof. Dr. Oliver Gailing, Phone: 0551 39 33536, E-Mail: ogailin@gwdg

Please note: With submission of your application, you accept the processing of your applicant data in terms of data-protection law. Further information on the legal basis and data usage is provided in the Information General Data Protection Regulation (GDPR)

“Gailing, Oliver” <ogailin@gwdg.de>

UJyväskylä Evolutionary Genomics

The Department of Biological and Environmental Science < <https://www.jyu.fi/bioenv/en> > is currently seeking to recruit staff to the position of Doctoral Student in Ecology (Fitness effects and genomic consequences of exposure to environmental radionuclides), starting 1 February, 2020 or as soon as possible thereafter, contract length maximum of four years.

Mappes' and Watts' groups study evolutionary ecology and genomics in wild animal populations, with a current emphasis on understanding the impacts of anthropogenic activities such as contamination and/or habitat management. We are seeking a highly motivated person to participate on a project that aims to quantify the evolutionary consequences of chronic exposure to environmental radionuclides. The focus of this project are bank voles *Myodes glareolus* inhabiting sites within the Chernobyl Exclusion Zone, Ukraine. The goal of the

project is to use experimental methods to quantify the fitness costs of inhabiting an area with elevated levels of ionizing radiation. For example, the candidate will use field experiments to identify important changes in genome (e.g. gene expression and copy number changes), life history and microbiota community associated with chronic exposure to radionuclide contamination, with a view to identifying potential mechanisms of adaptation.

The successful candidate will join an international team of researchers at the at the Department of Biological and Environmental Science, University of Jyväskylä. The project provides diverse training and experience of experimental field ecology, and molecular and genomics methods and bioinformatics.

Candidate will have completed a Masters degree in a relevant biological discipline. S/he is expected to have excellent written and oral communication skills and be able to complete fieldwork in demanding conditions. The candidate will have a strong interest in evolutionary biology and/or genomics. Experience with molecular biology methods and bioinformatics skills (e.g. data analysis using using R and/or UNIX environments), and/or field work in small mammals/birds, is an advantage.

More information about bank voles inhabiting the Chernobyl exclusion zone can be found at: (1) Kesäniemi et al. (2019) *Scientific Reports*,9, 850. (2) Lavrinienko et al. (2018) *ISME J*, 12, 2801-2806. (3) Mappes et al. (2019) *Ecosphere*,10, e02667.

The duties, qualification requirements and language skills of doctoral student are stipulated by the University of Jyväskylä Regulations and language skills guidelines < <https://www.jyu.fi/en/workwithus/subpages/-qualifications/qualification-requirements-for-teaching-and-research-staff-jyu-regulations-2015-12/view> >. The selected person is required to have a command of English language.

Doctoral Student must have a Master's degree and permission for post-graduate studies in the University of Jyväskylä. If the applicant does not have permission for post-graduate studies in the University of Jyväskylä, it must be applied with a separate application procedure from the Faculty of Mathematics and Science.

The initial salary of a doctoral student is typically around 2200 euro / month.

For further details, please contact: Tapio Mappes (tapio.o.mappes@jyu.fi) or Phillip Watts (phillip.c.watts@jyu.fi)

Please attach the following documents to the online application form (that can be found at: <https://->

www.jyu.fi/en/workwithus/open-jobs):

1. Curriculum vitae (CV), composed according to good scientific practice and considering, when possible, the template for a researcher's curriculum vitae by the Finnish Advisory Board on Research Integrity < <http://www.tenk.fi/en> >. A list of two referees and their contact information must also be included in the CV. 2. Short application / motivation letter, including research interests. 3. Relevant certificates / diplomas

Please submit your application at the latest by 24 January 2020 11:45pm (GMT +2) using the online application form.

“Watts, Phillip” <phillip.c.watts@jyu.fi>

ULethbridge Canada EvolutionaryNeurobiology

The Iwaniuk lab at the University of Lethbridge is currently seeking applications from students interested in pursuing a MSc or PhD in evolutionary neurobiology.

We offer a range of research topics that combine field and lab based approaches to understand the evolution of brain and behaviour in birds and mammals. Our lab houses one of the largest comparative brain collections in the world with over 180 species represented. Dedicated lab facilities include: microtomes, cryostat, fluorescent microscope, a high-resolution digital slide scanner, and the latest in stereology and neuron tracing software. We recently moved into a brand new science building (Science Commons) with additional space to support wet lab activities, data analysis, imaging, and animal housing. Field research is supported by a dedicated 4x4 field vehicle, a specialized mobile lab trailer for preparing samples and the newly renovated West Castle field station, nestled in the southern tip of the Canadian Rockies. In addition to our fieldwork in western Canada, opportunities are available for students to travel to and collaborate with researchers at other institutions in Canada, USA, Chile and Australia and attend international conferences annually.

Recently completed student projects include: the effects of domestication on the chicken brain, evolution of the cerebellum in birds, endocast reconstruction of endangered parrots, and the effects of sex and season on neuronal morphology in ground squirrels. Some examples of potential projects for new graduate students are: sensory ecology of an extinct ibis, the evolution of

sex differences in brain anatomy across ground squirrel species, and the effects of artificial selection on brain anatomy in pigeons. Other projects are available too, depending on the individual interests of prospective students.

The University of Lethbridge offers competitive scholarship funding, including tuition waivers, for applicants based on grades and research experience. Successful students will also be able to attend international conferences annually and support is available for workshops relevant to thesis work. Potential students must have a background in biology, psychology or neuroscience, some research experience (of any kind) and a valid driver's license. No fieldwork experience is required. Start dates are flexible, but applications are due February 1st and May 1st 2020.

To apply, send: 1) a c.v.; 2) unofficial copies of academic transcripts; and 3) a brief description of your research interests to: andrew.iwaniuk@uleth.ca. More information about our lab can be found at: <http://scholar.ulethbridge.ca/iwaniuk/home>. Additional information on scholarships and deadlines can be found at: <https://www.uleth.ca/graduate-studies/> Andrew N. Iwaniuk Associate Professor Canada Research Chair in Comparative Neuroanatomy Canadian Centre for Behavioural Neuroscience University of Lethbridge Lethbridge AB T1K 3M4 Canada office: +1 403 332 5288 <http://scholar.ulethbridge.ca/iwaniuk/home> Bird-brain (bÅ»rd brån)1. a person regarded as silly or stupid.

“andrew.iwaniuk@uleth.ca”

<andrew.iwaniuk@uleth.ca>

ULiverpool ClimateAdaptation

Designing landscapes that are robust to climate change

A PhD position is available at the University of Liverpool to develop new mathematical and computational methods that will support the design of new nature networks. Your mathematical models will account for population dynamics and dispersal, ensuring that the best ecological information is used when designing 'connected landscapes' that will allow species to shift their geographic distributions in response to climate change.

Global warming and habitat loss present significant challenges because a species needs to be able to reach new (climatically suitable) locations before its current geographical range becomes inhospitable. Therefore, the

limited amount of habitat that can be preserved or restored must be arranged as networks that are sufficiently well connected to allow species' ranges to shift over time, and extensive enough that they can move long distances. But, what is the best design for these networks? Unfortunately, existing computer models that incorporate realistic details of a species' ecology are far too slow to design habitat networks, and currently available tools make over-simplistic assumptions.

You will build on recent advances in mathematical population dynamics to develop new and efficient methods for accurately predicting the spread of populations through habitat networks, and you will test the robustness of the model's predictions using empirically observed range expansions for butterfly species in the UK.

This project will suit a graduate of a quantitative discipline (e.g. mathematics, physics, computer science) who wishes to apply their skills to environmental change biology, or a biologist with strong mathematical and/or computational skills. You will be part of the NERC ACCE PhD programme, which will provide both support and training, and based at the University of Liverpool. You will be supervised by a multi-disciplinary team comprising Stephen Cornell (Mathematical Ecologist), Jenny Hodgson (Conservation Biologist), and Chris Thomas (Biodiversity Researcher). Funding Notes Competitive funding of tuition fee, research costs and stipend (15,009 tax-free, 2019-20) from the NERC Doctoral Training Partnership "Adapting to the Challenges of a Changing Environment" (ACCE, View Website). ACCE - a collaboration between the Universities of Liverpool, Sheffield, and York - is the only dedicated ecology/evolution/conservation Doctoral Training Partnership in the UK. In accordance with NERC requirements, funding is usually only available to UK or EU citizens, but strong non-EU applicants may also be eligible for funding in exceptional cases.

Applications (CV, letter of application, 2 referees) by email to iibapply@liverpool.ac.uk deadline: January 8th 2020. Interviews in or after the week commencing : 10th February 2020. Shortlisted applicants will be interviewed for only one project from the ACCE partnership. Informal enquiries to stephen.cornell@liverpool.ac.uk.

For more details, see <https://www.findaphd.com/-phds/project/designing-landscapes-that-are-robust-to-climate-change/?p112797>
Stephen.Cornell@liverpool.ac.uk

ULouisiana Lafayette InvasivePlantGenomics

PhD Graduate Assistantship: Genetics and Genomics of Invasive Fern

The Sigel lab in the Department of Biology at the University of Louisiana at Lafayette is recruiting a PhD student interested in pursuing research on the phylogenetics, population genetics, and genomics of the invasive aquatic fern *Salvinia molesta*. Widely considered one on the world's most invasive and understudied weeds, *Salvinia molesta* poses an extreme ecological and economic burden in the southeastern United States. This project will involve extensive sampling of contemporary populations and historic herbarium specimens to infer the evolutionary origins of *Salvinia molesta*, as well as characterize its genetic and epigenetic variation within Louisiana and the adjacent Gulf of Mexico Coastal Region.

This graduate position is part of the NSF funded Consortium for Plant INvasion Genomics (CPING), centered out of the University of Louisiana at Lafayette. This consortium unites researchers several institutions conducting similar projects that leverage herbarium specimens to better understand the evolutionary dynamics underlying plant invasions. This position will be supported by a two years of research assistantship, followed by a guaranteed teaching assistantship support or the possibility of a University graduate fellowship. The preferred start date is August 2020, with the possibility of beginning fieldwork in June 2020.

The ideal candidate for this position is a passionate and motivated scientist with previous research experience in evolutionary biology, phylogenetics, genomics, or a related field. Previous experience with molecular lab skills, phylogenetics, genomic-scale datasets, and coding is highly preferred but not required. A desire to participate in field collection, learn new skills, and work collaboratively with others is necessary.

The Department of Biology at the University of Louisiana at Lafayette has a large and productive graduate program, with relatively low TA teaching loads, guaranteed funding for PhD students, and many available fellowships. We have a strong research program in Evolutionary Biology with nine new faculty members in the last 5 years. Information on our graduate program and curriculum can

be found at <https://biology.louisiana.edu/programs/-graduate>. Lafayette is a college town in south-central Louisiana in the heart of Acadiana, a region known for its Cajun culture, food, and music. Learn more at <https://www.lafayettetravel.com/explore/history-of-acadiana>. If interested, please email Dr. Erin Sigel (erinsigel@louisiana.edu; erinsigel.net). Include a CV and a cover letter briefly summarizing your relevant experiences and interest in the position.

Deadline for applications is February 1, 2020. –

Erin M. Sigel, PhD.

Assistant Professor

University of Louisiana at Lafayette Billeaud Hall, Room 108

Lafayette, LA 70503 www.erinsigel.net Erin Sigel
<erinsigel@louisiana.edu>

Erin M. Sigel, PhD Assistant Professor Ramon E. Billeaud/BORSF Endowed Professor in Plant Science Acting Director of the University of Louisiana at Lafayette Herbarium (LAF) Department of Biology University of Louisiana at Lafayette 243 Billeaud Hall Lafayette, LA 70503 (337) 482-5245

erinmackeysigel@gmail.com

UMississippi EvolutionaryBiology

The Garrick lab and Noonan lab at U. Mississippi are each currently recruiting graduate students for Fall 2020. These research groups have shared interests in understanding evolutionary processes that generate, maintain, or compromise diversity within and among species.

Students with interests in comparative phylogeography, molecular phylogenetics, and/or applied conservation genetics are encouraged to contact either Ryan Garrick (email: rgarrick@olemiss.edu, lab website: rcgarrick.org), or Brice Noonan (email: bnoonan@olemiss.edu, lab website: bnoonan.org).

The U. Mississippi Department of Biology deadline for receipt of graduate student applications is 1st February 2020 (<https://biology.olemiss.edu/programs/graduate/-application-procedure>), but initial conversations about potential projects and relative fit for each of the two lab groups should start now.

Ryan Garrick Department of Biology 508 Shoemaker Hall University of Mississippi University, MS 38677-1848,

USA

webpage: <http://www.rcgarrick.org>
“rgarrick@olemiss.edu” <rgarrick@olemiss.edu>

“rgarrick@olemiss.edu”

UMissouri STL MicrobialEvolution

PhD positions available in the Department of Biology at the University of Missouri to work in the Inglis lab. Our lab studies the evolution of a number of microbial interactions important in disease virulence and antibiotic resistance. Candidates broadly interested in evolution and microbes are strongly encouraged to apply. The department has strong links with the St. Louis Zoo, Missouri Botanical Gardens, and is also home to the Harris World Ecology Center with numerous opportunities for collaboration.

Interested applicants should contact Dr. Fredrik Inglis (inglis@umsl.edu) by January 8th. Applications due January 15th.

R. Fredrik Inglis, DPhil

Assistant Professor Department of Biology University of Missouri - St. Louis

“Inglis, R. Fredrik” <inglis@umsl.edu>

UNeuchatel EvolutionaryBotany

A four-year PhD position combining ecology and evolutionary botany is available in the Laboratory of evolutionary genetics, Institute of Biology, University of Neuchâtel, Switzerland. The thesis is financed by the Swiss National Science Foundation (SNF) within the framework of a Sinergia project. It is directed by Prof. Jason Grant (UniNe) and co-supervised by Dr. Pierre-Emmanuel Du Pasquier (UniNe) and Dr. Beryl Laitung (Université de Bourgogne, UMR Agroécologie, Dijon, France).

BACKGROUND AND OBJECTIVES Anthropogenic pressure may lead to the rapid and sometimes irreversible decline of botanical diversity, or on the contrary, favors the expansion of certain non-native species. In Europe, since the mid-20th century, the intensification and modernization of agricultural practices (mechanization with

deep ploughing, use of herbicides, seed sorting, densification of monocultures and systematic use of certified seeds) has had an unprecedented impact on archaeophyte messicole species (crop-related species that were introduced mainly from the Middle East before the year 1500). As messicole species are generally therophytes (annual plants that spend the difficult season in the form of seeds), modernization quickly destroys seed stocks in the soil and contributes to the decline of these populations that were common until the mid-20th century. Although messicolous species are part of the floristic richness of the different countries where they are now native, they seem to have been introduced in the past by man in the form of seed since the domestication of crops from the Neolithic period (11000 to 9000 years ago). Some species introduced secondarily and recently into new regions may be locally abundant and may pass from archaeophyte to neophyte status: this is the case, for example, of the cornflower (*Centaurea cyanus* or *Cyanus segetum*), introduced into North America from Europe. The main goal of this PhD is to study the population dynamics of different archaeophyte messicole taxa with varied population dynamics using functional ecology (life history trait analysis) and evolutionary botany (genetic analysis of evolutionary history) approaches. From herbarium collections, we plan to recreate populations from the 18th century to the present from which genetic analysis and mapping will be carried out. Experiments will be done in the field (experimental station in Dijon) in order to analyze current populations. Fieldwork is necessary to sample populations and establish the current status and future of the taxa.

REQUIREMENTS The successful candidate holds a master's degree in ecology, evolutionary biology or an equivalent field with an excellent academic record. A strong interest in ecology, evolutionary genetics and a good knowledge of botany is desirable. Periods of work in experimental fields, in the laboratory, in herbaria and in the field are an integral part of this thesis.

APPLICATION PROCEDURE AND DEADLINE The candidate should send a single PDF file by e-mail containing 1) a letter of motivation describing research interests, willingness to do a PhD, and suitability for this subject, 2) a curriculum vitae, 3) a copy of master's degree and transcript, 4) a summary of the master's thesis, and 5) the names and contacts of two referees. The application file should be sent to both Prof. Jason Grant (jason.grant@unine.ch) and Dr. Pierre-Emmanuel Du Pasquier (pierre-emmanuel.dupasquier@unine.ch). The deadline is Monday, January 20, 2020.

GRANT Jason <jason.grant@unine.ch>

UOldenburg Forest Understory Diversity

Uni_Oldenburg_Germany_PhylogeographyEurasiaChernobyl

PhD position 'V 36 months (starting April, 1st 2020)
Application deadline January 17th 2020

The position is available in the framework of a trilateral German-Russian-Ukrainian VW-project. Within the project "Patterns of diversity in forest understory plants across Eurasia" we aim to investigate for two species (groups) of the genus *Veronica* a Eurasian-wide phylogeographical analysis using highthroughput-DNA sequence data, morphometri data, crossing experiments and ecological niche modelling. A special aspect of the project is the analysis of plants from Chernobyl and Kyshtym, places with high radioactive contamination.

You should - have completed university with a master degree in biology or related fields with an emphasis on evolution or ecology - be fluent in English in word and text - have experience with scientific publication - have good theoretical knowledge in phylogeographic and evolutionary biology literature - have experience with analysis of highthroughput sequencing data - know how to use relevant software, e.g., R, Linux-system - be mobile with good communications and team abilities - be self-reliant and well-organized

We offer - opportunity to complete a doctorate (Dr. rer. nat. or PhD) - an interesting research environment in Oldenburg with close interaction with other researchers in the evolutionary and ecological field - close cooperation with Russian and Ukrainian partners with many field opportunities - a collegial work atmosphere - an established advanced training program (<https://uol.de/en/oltech>)

The Carl von Ossietzky University of Oldenburg is an equal opportunity/affirmative action employer. In order to increase the percentage of female faculty members, female candidates with equal qualification will be given preference. Applicants with disabilities will be preferentially considered in case of equal qualification.

Please send your application including cv, certificate, possible references, and publications, if available, to Prof. Dirk Albach: (dirk.albach@uni-oldenburg.de).

N.B. The German version of this advertisement, which is legally binding, may be found under <https://www.uni->

oldenburg.de/stellen. This English version is for information only.

“Prof. Dr. Dirk Carl Albach” <dirk.albach@uni-oldenburg.de>

UOstrava Archaeogenetics

Ph.D. student wanted: archaeogenetics and method development (admixture graphs)

- application deadline: January 31, 2020

- requirements: prior experience in analysis of genome-wide archaeogenetic data; Python, R, bash

Supervisor: Pavel Flegontov, Ph.D. (contact pfl@gontov@gmail.com for scheduling a Skype interview)

Duration of study: 4 years

Institution: University of Ostrava, Ostrava, Czechia

Collaborations: Harvard Medical School

Net salary: 20000 CZK

I am looking for a Ph.D. student who will start working preferably in March 2020. I work as a senior staff scientist in David Reich’s group (Harvard Medical School, Boston, USA) and as a group leader at the University of Ostrava, Czech Republic. The position is open at the University of Ostrava with a starting net pay of 20000 CZK (scholarship and part-time salary combined). Research stays at Harvard University are possible.

Research project: While ancient DNA sequencing protocols became standardized and reached industrial scale, standardization of data analysis protocols in archaeogenetics is conspicuously lacking. Currently most studies are focused on the Bronze/Iron Age and historical periods characterized by increasing mobility and admixture of people, and the complexity of tasks facing a genetic data analyst ever increases. Genetic history of humans is best approximated as a graph including divergence and admixture events. Methods that test alternative graph models or search the model space automatically have been developed since 2012, and several classes of these tools exist. But a different set of analytical tools has become the mainstay of archaeogenetic studies: principal component analysis, simple statistics measuring shared genetic drift or symmetry of simplest population trees (e.g., f_3 - and f_4 -statistics), and qpAdm - a tool that tests if a target group can be fitted as a mixture of specified ancestral sources. A common feature of those

methods is that they ignore the phylogeny. We show that f_4 -statistics are insensitive to large-scale admixture events under certain demographic scenarios, that qpAdm often lacks sensitivity for distinguishing alternative ancestral groups, and that some popular protocols for building admixture graphs (qpGraph) are flawed. We propose a method for inference of ancestral sources based on qpGraph and a set of strict model ranking and topology exploration rules. We show that this method is superior in sensitivity to the standard techniques and apply it for reevaluating accepted views on the settlement of America and Bronze Age Europe. We propose an exhaustive simulation study of qpGraph/qpAdm, source code optimization for qpGraph, preparing protocol papers, and application of the novel tool for reanalysis of thousands of ancient genomes published.

Recent publications (my team members are highlighted in bold):

Flegontov P, Alt \tilde{A} $\frac{1}{2}$ n \tilde{A} $\frac{1}{2}$ \tilde{A} $\frac{3}{4}$ \tilde{A} $\frac{1}{2}$ k NE, Changmai P, Rohland N, Mallick S, Adamski N, Bolnick DA, Broomandkhoshbacht N, Candilio F, Culleton BJ, Flegontova O, Friesen TM, Jeong C, Harper TK, Keating D, Kennett DJ, Kim AM, Lamnidis TC, Lawson AM, Olalde I, Oppenheimer J, Potter BA, Raff J, Sattler RA, Skoglund P, Stewardson K, Vajda EJ, Vasilyev S, Veselovskaya E, Hayes MG, O’Rourke DH, Krause J, Pinhasi R, Reich D, Schiffels S. (2019) Paleo-Eskimo genetic ancestry and the peopling of Chukotka and North America. *Nature*, 570:236-240.

Lipson M, Cheronet O, Mallick S, Rohland N, Oxenham M, Pietrusewsky M, Pryce TO, Willis A, Matsumura H, Buckley H, Domett K, Nguyen GH, Trinh HH, Kyaw AA, Win TT, Pradier B, Broomandkhoshbacht N, Candilio F, Changmai P, Fernandes D, Ferry M, Gamarra B, Harney E, Kampuansai J, Kutanan W, Michel M, Novak M, Oppenheimer J, Sirak K, Stewardson K, Zhang Z, Flegontov P, Pinhasi R, Reich D. (2018) Ancient genomes document multiple waves of migration in Southeast Asian prehistory. *Science*, 361:92-95.

Pavel Flegontov, PhD

Senior staff scientist, David Reich Lab Department of Genetics, Harvard Medical School, Boston, MA, USA

<https://reich.hms.harvard.edu/people/pavel-flegontov>
Group leader, Department of Biology and Ecology, University of Ostrava,

Ostrava, Czech Republic <http://www1.osu.cz/~flegontov/> Pavel Flegontov <pfl@gontov@gmail.com>

UPotsdam TheoreticalCommunityEvolution

In the working group Ecology/Ecosystem Modelling at the University of Potsdam (next to Berlin) is a Ph.D. (3 years) or a Post-Doc position (2 years) available within the DFG funded Priority Programme DynaTrait (www.DynaTrait.de).

We are seeking a highly motivated and productive scientist who is interested and capable of contributing to a modelling team closely interacting with experimentalists and field data. She/he should have strong research interests in community and trait-based ecology (e.g. dynamics of predator-prey and multi-trophic systems), and in the role of adaptability for system dynamics in particular (e.g. via eco-evolutionary dynamics). The work includes developing and analyzing predator-prey and food web models that account for ongoing mutual adaptations of trait values among interacting organisms. The focus of this position is on the newly emerging question how such mutual adaptations influence the robustness of the system against perturbations. Details may be adjusted to the preknowledge and interests of the post holder.

The ideal candidate holds a Master or Ph.D. in ecology, physics or a related discipline, has a strong background in trait-based ecology and/or comprehensive skills in working with models using differential equations. Experiences in data analysis are desirable.

The Ecology and Ecosystem Modelling Group is an established centre for both theoretical and experimental study on population and community ecology with a focus on plankton. The modelling team, consisting of four Post-Docs, Ph.D. and Master students, is supervised by Prof. Dr. Ursula Gaedke and provides a very stimulating research environment for promoting theoretical ecology by modelling and empirical studies. It is located in Park Sanssouci, a UNESCO Cultural World Heritage site centrally located in Potsdam, and about 30 minutes away from Berlin. Further information can be found at <https://www.uni-potsdam.de/en/ibb-ecology/>. The successful candidate can participate in the Potsdam Graduate School providing a broad spectrum of soft skill training.

Please send your application electronically with the usual information (in particular a letter of motivation,

extended CV, and contact details of academic references and copies of degree certificates) to Prof. Dr. Ursula Gaedke (gaedke@uni-potsdam.de), if possible as a single file. The position is open until it is filled. The “12-years-rule” does apply for this position. Please send no original documents.

“velzen@uni-potsdam.de” <velzen@uni-potsdam.de>

UppsalaU PlantEvolutionaryGenetics

One PhD position in Plant Evolutionary Genetics, Uppsala University

One PhD position is available in the research group of Pascal Milesi at the Evolutionary Biology Centre in Uppsala, Sweden. Our research group works on plant population genetics and evolutionary biology with a special emphasis on local adaptation and genome evolution. We work on two groups of organisms: forest trees (mainly spruces) and weeds (mainly the tetraploid weed *Capsella bursa-pastoris* and its close relatives). Please note that a background in Plant Biology is not required.

The deadline to apply is January 15, 2020.

For more information please contact: Pascal.Milesi@scilifelab.uu.se

The environment.

The Evolutionary Biology Centre (<http://www.ebc.uu.se/>) is one of the world’s leading research institutions in evolutionary biology. It is part of Uppsala University which is considered one of Europe’s leading universities in the subject of biology bridging a broad variety of disciplines. The scientific environment with numerous seminars, journal clubs and social activities offer excellent possibilities for contacts and collaborations. Our lab is part of the Department of Ecology and Genetics and of the program in Plant Ecology and Evolution (<http://www.ieg.uu.se/>), an active environment addressing fundamental evolutionary and ecological questions with a wide range of different approaches. As members of the Science for Life Laboratory (<http://www.scilifelab.se/>) we make extensive use of high performance computing resources (<https://www.uppmax.uu.se/uppnex>) and extended bioinformatic infrastructure (<http://www.scilifelab.se/-platforms/bioinformatics/>). The lab is situated in the student town of Uppsala that offers rich opportunities in cultural and outdoor activities. Sweden’s capital,

Stockholm, is less than an hour's train ride away.

The project. Understanding the genetic determinism of phenotypic traits is of paramount importance to identify and understand the mechanisms that drive their evolution and, for instance, predict their evolution under environmental changes. One major issue with genome-wide approaches is that they usually focus on point mutations and structural rearrangements are generally not considered. Coniferous tree species are particularly fitted to address such questions as it is possible to extract and sequence DNA from haploid tissues and their population are known to show strong pattern of local adaptation. The PhD project thus aims at studying the role of structural rearrangements (starting by gene duplications) in adaptation using an integrative approach to link different levels of organization.

The position. This integrative approach will lead the successful applicant to work in the field (sampling and common garden), in the wet-laboratory, and analyze -omics and eco-evolutionary data. There will be also possibility to participate in other ongoing projects on local adaptation in spruce. The applicant is expected to master main concepts in Evolutionary Biology, have a good background in population genetics/genomics and a solid foundation in statistics. Proficiency in relevant programming languages (e.g. bash, Perl, Python) will be a strong advantage.

How to apply. Applicants with a proven record with a Master degree are encouraged to apply. To apply please go the website of Uppsala University where you can login and submit your application: <http://www.uu.se/en/about-uu/join-us/jobs/> The position is PhD student in Evolutionary genomics (Published 2019-12-05): <https://www.uu.se/en/about-uu/join-us/details/?positionId=303801> Page Title

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

USaskatchewan PlantBioinformatics

Dear all,

we are happy to announce an exciting opening for a full-time two- to three-year term Master's candidate position in Computer or Plant Sciences at the Global Institute for Food Security/University of Saskatchewan, Canada. The start date of the position is the spring term 2020 (May 6th). The Global Institute for Food Security (www.gifs.ca) is an excellent multidisciplinary institute at the UoFS with the mission to deliver transformative innovation to agriculture in both the developed and the developing world. For this position, we believe that you have a Bachelor's degree in bioinformatics, plant biology or agricultural biology. You are experienced in next-generation sequencing data handling and genome analyses with skills in batch scripting, phyton and R, and that you have a keen interest in comparative plant genomics and evolution.

The position is open until filled on 1st May 2020! <https://usask.csod.com/ats/careersite/JobDetails.aspx?id=-5219&site=> For questions, please contact

Martin Mau, Dipl.-Biol., PhD Post Doctoral Fellow Seed and Developmental Biology Global Institute For Food Security (www.gifs.ca)

martin.mau@gifs.ca +1-306-966-3714 110 Gymnasium Place University of Saskatchewan Saskatoon, Sk, S7N0W9

"Mau, Martin" <martin.mau@gifs.ca>

USBohemia Czechia 2 ButterflyEvolution

Graduate position: USBohemia.Czechia.PhenotypicConvergenceButterflies

New PhD Position: Phenotypic convergence in Neotropical skipper butterflies (Please, feel free to distribute to all potential candidates) Closing date: December 31, 2019

You will be part of an exciting project studying the role of species interactions in the diversification of skipper butterflies (family Hesperidae) in the Neotropics. The goal of the PhD position is to test competing hypotheses for understanding the evolution of convergent phenotypes. It is expected to obtain measurements of shape and color variation in wings across species, and to test potential drivers of phenotypic similarity using geometric morphometrics and an available species-level phylogeny.

You will be also able to carry out experiments in the field (Peru), in collaboration with our partners at the Natural History Museum in Lima. The data coming from these experiments, including defense strategies in skippers against avian predators (e.g., palatability, escape ability), will allow quantifying the strength of predator selection on the evolution of butterfly wing traits. Altogether, novel evidence explaining convergence among unrelated lineages can be obtained at both phylogenetic and community levels.

The results will be part of a larger multidisciplinary framework aiming at determining the role of biotic and abiotic factors in the diversification of Neotropical butterflies at different evolutionary and ecological scales. As part of the research activities of our international team, multiple avenues for networking will be possible, including our collaborators Dr. Marianne Elias (Natural History Museum, France; <http://tiny.cc/Elias>), Dr. Andre V. L. Freitas (University of Campinas, Brazil; <http://tiny.cc/Freitas>) and Dr. Katerina Sam (Biology Centre, CAS; <https://multitrophicinteractions.blog/>).

Priority will be given to candidates who have co-authored at least one scientific publication (including submitted and accepted manuscripts). Experience with conducting fieldwork in the tropics, handling birds in manipulative experiments and/or using phylogenetic comparative methods is advantageous. Due to intensive fieldwork in Peru, good language skills in Spanish are desirable.

The applicant must have the following qualifications: * Master degree in Biology or related fields to this position (must be awarded prior to the starting date). * Good communication skills in English, written and spoken. * Independence in learning and working, with documented productivity.

It is expected that you will enroll into the associated PhD program (4 years) at the Faculty of Sciences, University of South Bohemia (<https://www.prf.jcu.cz/en>). The scholarship will be a combination of research grant salary (50%, from the Biology Centre, Czech Academy of Sciences, <https://www.entu.cas.cz/en/>) plus student stipends (50% from the University of South Bohemia), fully covering living expenses with a comfortable margin in the Czech Republic. The research facility is located in Ceske Budejovice, a charming historical city in the south of the country, within an easy reach of Prague and Vienna. Our working environment (Department of Ecology, led by Prof. Vojtech Novotny, <https://www.entu.cas.cz/en/departments/-department-of-ecology-and-conservation-biology/>) is highly diverse and international (16 nationalities from 4 different continents). Our team values a lot creativity

and critical thinking.

The application is by e-mail (to pavel.matos@entu.cas.cz) and must be written in English. The following must be attached in one single PDF file: * Cover letter, stating your motivation, how your background and skills fit the project, and your potential plans for this position (max. 2 pages). * CV, including contact details of at least two referees that are familiar with your work.

The deadline for applications is December 31, 2019. The top ranked candidates will be selected for an interview in English (by phone/skype). The start date is upon agreement, but the successful applicant is expected to start during spring 2020.

For further information, please do not hesitate to contact me.

Dr. Pavel Matos-Maravi Biology Centre, Czech Academy of Sciences Branisovska 31, 37005, Ceske Budejovice, Czech Republic Email: pavel.matos@entu.cas.cz Web: <http://pavelmatos.wordpress.com> —

Graduate position: USBohemia.Czechia.EvolutionaryGenomicsButterflies

New PhD Position: Phylogenomics and population genomics of Neotropical butterflies (Please, feel free to distribute to all potential candidates) Closing date: December 31, 2019

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USBohemia Czechia PollinatorPopGenomics

Graduate Position: USBohemia.Czechia PopGenomics LongTerm Monitoring Pollinators

Deadline December 31st 2019

A PhD position is available for a highly motivated candidate to integrate genomic and trophic information into long-term monitoring of tropical insects.

A highly motivated postgraduate student is sought to join a project funded by the Czech Academy of Sciences integrating genomic and trophic information into

long-term monitoring of tropical insects. More specifically the project will study the main insect pollinators of Barro Colorado Island, Panama. Current evidence suggests insect pollinators to be undergoing population declines worldwide with catastrophic consequences to biodiversity and human crop production. These population declines are difficult to demonstrate using census data alone. High-throughput sequencing techniques such as RAD-seq allow to study fine-scale population genomic patterns such as population structure and effective population size. Using collections from long-term monitoring efforts allow to study how populations have been recently affected by factors such as climatic change and anomalies. We seek to analyze recent population changes of diverse insect pollinators (euglossine bees, Cyclocephalini beetles and butterflies). The ForestGEO Arthropod Initiative has been monitoring arthropod assemblages on Barro Colorado Island, Panama, since 2009. We will use these data to infer population genomic changes in the 25 most common pollinator species. We will improve forecast of population dynamics using flower resource, determined from DNA pollen metabarcoding and litterfall trap data, as covariates of pollinator time-series.

The student will implement field work in Panama and will be involved in laboratory analyses at the University of South Bohemia in the Czech Republic. His/her main responsibility will be to develop a sound analytical framework as to ultimately improve forecast of population dynamics of pollinators on Barro Colorado Island, one of the most intensively studied tropical forest in the world. Developing related directions of research will also be encouraged. The successful applicant will be based at the University of South Bohemia in Ceske Budejovice and will perform field work at Barro Colorado Island. He/she will join the ForestGEO Arthropod Initiative, led by Dr Yves Basset, based at the Smithsonian Tropical Research Institute. The Arthropod Initiative represents an international research group, including Dr Greg Lamarre and Dr Daniel Souto, who are experts in tropical insect ecology and insect genomics.

The deadline for applications is 31 December 2019, with a possible start date of March 1st 2020. The student will receive a salary which covers living expenses in the Czech Republic and a stipend from the University of South Bohemia, during the 4-year PhD course. The working language is English and applicants from all countries are eligible.

Required A master's degree, preferably in the fields of entomology or ecology (non-negotiable requirement). Experience in insect ecology and basic molecular ecology (e.g. DNA extraction, PCR). Ability to work independently and strong interest in bioinformatics. Fluency

in spoken and written English (Spanish is optional but recommended). Experience in statistical analyses and proficiency with R.

Desirable Previous experience of field work in the tropics. Experience in insect taxonomy, especially pollinators. Experience in handling and managing genomic data. Scientific publications related to insect ecology and/or insect genomics.

To apply please send one single pdf document including a cover letter stating qualifications, previous work and motivation, and CV plus two reference letters to Yves Basset (basset@si.edu).

Daniel Souto <daniel.souto.v@gmail.com>

USouthBohemia SexChromosomes

2 PhD positions in evolution of sex chromosomes at the University of South Bohemia (Czech Republic).

Project description: Sex chromosomes, their differentiation, and role in speciation belong to the most intriguing questions of evolutionary genetics. It was proposed that comparison of patterns in sex chromosome evolution between male and female heterogametic taxa could be informative for identification of general features of this process. Moths and butterflies (Lepidoptera) represent the most speciose lineage with female heterogamety (WZ/ZZ). Unlike in other WZ/ZZ taxa, sex chromosome-autosome fusions are common in Lepidoptera, which makes them ideal model system for investigations into establishment and differentiation of neo-sex chromosomes. The project combines cytogenetic and genomic approaches to investigate the role of sexual antagonism in turnover of lepidopteran sex chromosomes and examine genomic changes underlying degeneration of neo-W chromosomes observed at the cytological level. The role of lepidopteran neo-sex chromosomes in reproductive isolation between moth sex chromosome races will be tested.

Qualifications: We are looking for enthusiastic students with a MSc degree in a relevant field interested in genomics of sex chromosomes and evolutionary forces driving their evolution. Candidates should have background in biology and preferably good wet lab skills (cytogenetic and/or molecular biology methods) and at least some basic skills in bioinformatics. Candidates should also be able of independent work, have organization skills, and speak good English.

Funding: Projects will be funded by Czech Science Foundation and Czech-American scientific cooperation grant under the INTER-ACTION program of the Ministry of Education, Youth, and Sports of the Czech Republic. The students will enrol in one of 4-year graduate programs of the Faculty of Science (<https://www.prf.jcu.cz/data/files/8/123/172/-3310rds2017.pdf>) and receive a regular scholarship. In addition the students will get 3-year part-time jobs (health insurance included).

How to apply: The successful applicants will join the Laboratory of Comparative Cytogenetics and Genomics lead by Dr. Petr Nguyen. To request further information, please contact Petr Nguyen (petr.m.nguyen@gmail.com). To apply, send your CV including contact details of two academic referees and statement of interest. Applicants from all countries are eligible. The deadline for applications is December 23, 2019. The best candidates will be interviewed on January 3, 2020. The start date is negotiable.

Petr Nguyen Assistant Professor Department of Molecular Biology and Genetics Faculty of Science, University of South Bohemia Ceske Budejovice, Czech Republic <https://www.prf.jcu.cz/en/kmb/people/faculty-and-stuff/rndr.-petr-nguyen-ph.d.html> petr.m.nguyen@gmail.com

UTartu SeagullLifeHistory

PhD opportunity in an international group.

Pollution, aging and cancer in common gulls.

Exposure to pollution shortens the life-span of humans (i.e. Apte et al. 2018) and laboratory model animals (i.e. *C. elegans**, Haghani et al. 2019), but little is known about the effects of pollutants on wild organisms, especially on aging rate and life-history. There is data indicating that exposure to specific pollutants, e.g. mercury, leads to fitness reductions (Whitney and Cristol, 2017), however, a systematic study of how wild animals' life history is affected by the exposure to cocktail of pollutants including air pollution and various forms of marine pollutants is missing. Animals that are ecologically connected to marine pollution are especially vulnerable to pollution effects, due to biomagnification processes (Bryan et al., 1979).

Aging research has been traditionally conducted on short-lived laboratory organisms (Holmes and Martin

2009). Since long-lived organisms differ in their senescence patterns from short-lived ones (Lemaitre et al. 2015) and senescence effects on life-history cannot be measured in laboratory conditions (Speakman et al. 2015), biogerontological research should include more long-lived wild populations.

Two main mechanisms related to senescence and longevity are especially intriguing in this context. First, attention should be turned to telomeres, repeats of DNA at the ends of chromosomes, shortening with each cell division, eventually passing a threshold length, after which the cell starts to senesce (O'Sullivan & Karlseder, 2010). In birds exposed to urban pollution telomeres shorten more quickly than in natural habitats (Salmon et al. 2016), but little is known about the effects of marine pollution on telomere shortening and, consequently, aging.

The second mechanism understudied in natural populations, but highly relevant in the context of aging, are oncogenic processes. Cancer is an age-related disease (White et al. 2014), however, prevention of cellular senescence (i.e. through inhibition of telomere shortening) can lead to malignant processes. It is known that human activities, especially related to pollution, can increase cancer rate in wild populations (Giraudeau et al. 2018).

We here suggest to use a combination of large-scale comparative analyses and a field study in a long-lived seabirds as models for improving our understanding of the interactions between pollutants, aging rate, life history and oncogenic processes in natural populations.

Methods:

The planned project will be based on three approaches. First, we will use the largest databases ever compiled on telomere shortening (more than 100 species) and cancer prevalence (1500 species) to test if aging rate predicts neoplasia development. In addition, these databases combined with already exciting databases owned by Drs. Giraudeau and Vincze will be used to detect the life-history predictors of aging rate in wild populations. Second, we will take advantage of the already collected longitudinal data about common gull (*Larus canus**) life-history parameters (e.g. body condition, reproductive success), and compare these data to historical changes in pollution levels (e.g. metallic trace elements like mercury, lead and cadmium) and climatic conditions. The data were collected from a breeding colony of common gulls in the Baltic Sea that has been monitored for 40 years. Third, we will use already collected longitudinal samples from known-aged common gulls to assess changes in telomere length and compare these to pollutant exposure and life-history parameters

of the same birds.

The PhD student will be funded by a fellowship from the University of Tartu (Estonia) and be based in Tartu. Depending on funding availability, the student will have possibilities to spend several months per year in France to work with his/her co-supervisors. He/she will also be encouraged to apply for grants to spend some time in France. The student will be co-supervised by Tuul Sepp (University of Tartu, Estonia, https://www.researchgate.net/profile/Tuul_Sepp3/research), Mathieu Giraudeau (CREEC, Montpellier, France, https://www.researchgate.net/profile/Mathieu_Giraudeau), Jerome Fort (LIENS, La Rochelle, France, https://www.researchgate.net/profile/Jerome_Fort) and Orsolya Vincze (https://www.researchgate.net/profile/Orsolya_Vincze2). Tuul Sepp will supervise the field work with common gulls and laboratory analyses of common gull samples related to aging. Mathieu Giraudeau will supervise the comparative analyses and the work related to oncogenic processes. Jerome Fort will supervise work related to marine pollution and additional seabird

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UTurku Finland LifeHistoryEvolution

Call for a master students, Department of Biology, University of Turku

Comparative analysis of blood thyroid hormones and life histories in vertebrates

Life-history variation (e.g. age of maturity, rates of reproduction) constitutes a large part of biodiversity within and across species. Yet the underlying physiological correlates and mediators are not yet well understood. We are seeking master student to join our project where we study the associations between for blood thyroid hormones (THs) and life histories in vertebrates at the University of Turku. The project aims to collect population-level data of blood TH concentrations across all vertebrates from the past studies in the literature by conducting a systematic literature review, and apply phylogenetic comparative analysis to test the potential

relationships between THs and life-history variation. Currently, we have identified ~12000 studies that may or may not contain relevant data. The master student is expected to help to screen abstracts and further full-text screening for inclusion and exclusion, extracting data from the included studies, and eventually participation in the phylogenetic comparative analysis.

We expect:

- * Advanced English communicating skills (CEFR B2 or higher) to ease the daily communication with supervisors
- * Prior experience with advanced statistical methods, such as general and generalized linear mixed models, using the software R are required.
- * Relevant education in biology (e.g. ecology, evolutionary biology, physiology) to understand the content of the identified scientific papers.

We offer:

- * The master student will be jointly supervised by Dr. Bin-Yan Hsu and Dr. Suvi Ruuskanen at Department of Biology, University of Turku, and have a close collaboration with Dr. Hsu on a daily basis.

- * Supportive environment in an active and international research group at an international department (see <https://sites.utu.fi/ruuskanengroup/>)
- * For international students, travel costs to Finland will be covered.

The recruited student is expected to start as soon as possible, in Jan/Feb 2020. For international applicants working remotely part of the time is also possible.

Questions and applications should be addressed directly via email to Dr. Hsu and Dr. Ruuskanen.

Contact asap: Dr. Bin-Yan Hsu, biyahs@utu.fi, Department of Biology, University of Turku

Suvi Ruuskanen, Academy research fellow Department of Biology University of Turku 20500 Turku, FINLAND
Mobile +358503256547

Twitter: @RuuskanenSuvi Ruuskanen Group pages
<https://sites.utu.fi/ruuskanengroup/> <https://-suviruuskanen.wixsite.com/ruuskanengroup> Suvi Ruuskanen <skruus@utu.fi>

UZurich PlantAdaptation

PhD position in plant adaptation

A PhD position is available in my group at the Department of Systematic and Evolutionary Botany, Univer-

sity of Zürich, for a period of four years. The position is to study the evolutionary consequences of interactions between plants and insects. Most studies on plant evolution use either an ecological approach to study mechanisms leading to future evolutionary change, or study patterns of past evolution using phylogenetic approaches. In this project, we will conduct experimental evolution using fast cycling Brassica plants to investigate real-time adaptation in plants. This approach has been proven highly successful in past experiments, and enables to study in detail the process of ongoing evolution. As selective, variable biotic environment, different communities of pollinators and herbivores will be used. During 5 generations, groups of plants will be under selection by these insects, and their adaptive evolution will be studied. Afterwards, selection treatments will be swapped to study the potential of plants to reverse their evolutionary trajectory, as required during adaptation in dynamic environments. Plant traits under adaptive evolution will be studied using selection analysis, phenotyping, as well as molecular and bioinformatics tools. The work will be primarily based in the greenhouse and lab. You should have a Master (or comparable) degree in any field of biology and a thorough interest in evolutionary biology. Prior experience with plants and/or insects is an advantage. Proficiency in English both orally and written is a must. The successful candidate will work in an exciting research environment focusing on patterns and process of plant evolution. Our department is located in the botanical gardens and houses modern molecular and ecological labs, including greenhouses and climate chambers for plant cultivation. The University of Zürich has a very broad coverage of organismal and molecular biology, and several research groups work on evolutionary topics (www.lifescience-zurich.ch). The city also offers excellent quality of life through cultural programs and infrastructure, as well as an attractive surrounding.

If you are interested in the job, please send me by e-mail (florian.schiestl@systbot.uzh.ch) a letter describing your motivation, C.V., copy of degrees, publications (manuscripts), and e-mail addresses of two academic referees, by 15th of January 2020. Please send all documents in a single file. If you have any further questions, don't hesitate to contact me.

Prof. Dr. Florian P. Schiestl Director, Department of Systematic and Evolutionary Botany and Botanical Gardens University of Zürich Zollikerstrasse 107 CH-8008 Zürich, Schweiz e-mail: florian.schiestl@systbot.uzh.ch Tel. +41 44 63 48409 Fax. +41 44 63 48403

“florian.schiestl@systbot.uzh.ch”
<florian.schiestl@systbot.uzh.ch>

Wageningen InsectEvoDevo

Wageningen.InsectEmbryogenesis

We invite applications from highly motivated candidates with relevant research experience and a passion for studying insect development. Insects display an amazing diversity in Bauplan modifications, species and taxa richness. Remarkably, the insect diversity is already reflected in their embryogenesis in terms of morphological and molecular variation. To date, most molecular information about insect embryogenesis has come from studies of model-organisms like *Drosophila melanogaster*. However, understanding the extent of gene expression variation during embryogenesis from diverse insect lineages could elucidate broad developmental constraints and novelty during insect evolution. Towards this end, the PhD student will combine in vivo documentation of embryogenesis of several phylogenetically diverse insect species and transcriptional analysis from next-generation sequencing to identify temporal gene expression dynamics in a comparative manner. The PhD project will be imbedded within The Graduate School Experimental Plant Sciences (EPS) under the supervision of Dr. Sabrina Simon in the Biosystematics Group, Wageningen University & Research. You will be part of the Biosystematics group, with about 25 employees, including technicians, PhD students, post-docs, junior and senior scientists working on fundamental questions about biological diversity. The inter-university Graduate School EPS is a collaborative research and teaching institution of Wageningen University (WU), Radboud University (RU), Vrije Universiteit Amsterdam (VU), Leiden University (LU), University of Amsterdam (UvA), Utrecht University (UU) and University of Groningen (RUG). The mission of EPS is to organize the training of PhD students and postdocs to become self-reliant researchers. The Biosystematics Group is part of the Plant Science Group and works closely together with other groups within Wageningen University. The group research themes are: (1) origin and maintenance of plant and insect biodiversity, (2) speciation, domestication and plant-animal interactions, and (3) applying phylogenetic patterns to test hypotheses on underlying evolutionary processes.

Requirements The successful candidate will have an MSc degree in Biology. Students with an interest in insect development, transcriptomics, gene expression analyses,

and evolutionary biology, are encouraged to apply. The candidate should know or be willing to learn protocols for setting up insect cultures, microscopy and dissection protocols, next-gen sequencing methods and analyses, and computer programming languages. Skills in molecular biological techniques and a proven ability to organize laboratory experiments and bioinformatic pipelines are highly advantageous. This position requires an excellent English language proficiency (a minimum of CEFR C1 level). For more information about this proficiency level, please visit our special language page. Within the Biosystematics group, PhD students have the opportunity to assist in teaching of undergraduates and/or two courses Biodiversity of the Netherlands and Webs of Terrestrial Diversity.

Applications should include: - a cover letter including a statement about your motivation to apply and your requirements for the position - curriculum vitae, including two referees - copies of your University degree

Working conditions We offer a full-time position (38 hours), initially for 1 year after which a go/no go decision will be taken on extension with another three years. Gross salary per month € 2.325,- in the first year rising to € 2.972,- per month in the fourth year, for a fulltime appointment. The candidate will be based at the Biosystematics group. Further information and application details: <https://www.wur.nl/en/Education-Programmes/-PhD-Programme/PhD-Vacancies/show/PhD-position-Transcriptomics-of-Insect-embryogenesis.htm> < <http://www.wur.nl/en/Jobs/Vacancies/Show/PhD-position-Insect-pest-evolution.htm> >

Deadline: January 31, 2020

Dr. Sabrina Simon | Assistant Professor Biosystematics | Wageningen University & Research phone: +31317-483175

Wageningen Campus | Radix Building 107 | Room W2.Ca.103 Droevendaalsesteeg 1 | 6708 PB Wageningen The Netherlands

“Simon, Sabrina” <sabrina.simon@wur.nl>

WashingtonStateU CoevolPlantMicrobes

The Porter lab at Washington State University, Vancouver seeks a PhD student to join our research project investigating how crop domestication affects beneficial

plant-microbe interactions. The student will have the opportunity to conduct research that integrates across our research in agricultural fields, the greenhouse, the wet lab, and via computational approaches. Prior experience in areas such as Evolutionary Ecology, Agronomy, Microbiology or Plant Science would be useful. The successful candidate will join a collaborative research team, so strong communication skills are a plus.

Project Background Over thousands of years of domestication and crop improvement, humans have shaped wild plant species into the diverse crops we depend upon. While beneficial microbes that live on and inside of plants play key roles in plant health, little is known about how a plants' ability to benefit from cooperative microbes changes during domestication. To investigate the evolution of plant benefits from wild plants to modern varieties, our project uses seed collections and genomic resources for legume crops ranging from soybeans to peas as model systems. The utility of legumes in agriculture lies in their unique symbiosis with rhizobial bacteria, which convert atmospheric nitrogen into useable forms, essentially fertilizing the plant. We compare crops' ability to benefit from rhizobia to that of their wild relatives by integrating approaches from phylogenetics, molecular genetics, quantitative genetics, and genomics. Legumes account for a quarter of global crop production and a third of human dietary protein. Understanding how and why rhizobial symbiosis evolves during domestication will help identify ways to improve crop benefits from microbes to increase our ability to feed a growing human population.

Lab Description The Porter lab (<https://labs.wsu.edu/-stephanie-porter/>) investigates diverse projects on the Evolutionary Ecology of Plant-Microbe Interactions, ranging from how symbiotic plants and microbes adapt to environmental stresses to the ways in which plant-microbe cooperation shifts during biological invasions. We are housed in the School of Biological Sciences at Washington State University, Vancouver. Located on a beautiful 351-acre campus across the Columbia River from Portland, Oregon, WSU Vancouver offers an excellent quality of life.

How to Apply If interested, please send an informal inquiry containing your CV with GPA and relevant coursework and a short statement explaining your interest in the position to stephanie.porter@wsu.edu. Please see instructions and information at <https://cas.vancouver.wsu.edu/science-graduate-programs/-biology-and-plant-biology-ms-and-phd>. Formal applications received by WSUV before January 10th, 2020 will be given full consideration, applications can still be considered after this date.

“stephanie.porter@wsu.edu”
<stephanie.porter@wsu.edu>

ZFMK Bonn Germany Bioinformatics

Effect of multiple stressors on stream-dwelling species on a functional level PhD position (TV-L E13, 65%)

The German job announcement can be found here: <https://www.zfmk.de/de/zfmk/arbeiten-am-zfmk/-stellenangebote> The Zoological Research Museum Alexander Koenig (Forschungsmuseum Alexander Koenig - Leibniz Institut für Biodiversität der Tiere -) invites applications for a PhD position starting February or March 2020 (Salary TV-L E 13, 65%).

The position will be part of a DFG funded project investigating the impact of multiple stressors on stream-dwelling species. The project is carried out in cooperation with Prof. Dr. Florian Leese (Faculty of Biology, Chair for “Aquatische Ökosystemforschung” at the University of Duisburg-Essen), Prof. Dr. Peter Haase from the Senckenberg Institute Gelnhausen (“Abteilung Fließgewässerökologie und Auenforschung”) and University of Duisburg-Essen as well as Prof. Dr. Ralf Schäfer from the University of Koblenz-Landau (“Institut für Umweltwissenschaften, Quantitative Landschaftsökologie”). The main goal of the project is to identify the effect of multiple stressors of pesticides and sediment on aquatic macroinvertebrates with the help of modern genetic methods.

The position will be situated in the working group of Dr. Christoph Mayer, Section “Statistical Phylogenetics and Phylogenomics”. In addition to field and laboratory experiments in Gelnhausen and Essen, the projected research includes numerous bioinformatic analyses and method development in the areas of quality control of NGS data, assemblies of transcriptomes, expression analyses and identification of genes and interaction pathways which are differentially expressed due to the stressor action. The main goal of this subproject is to test the extent to which functional physiological responses to multiple stressors are additive, antagonistic or synergistic. Furthermore, the influence of biotic interactions on the stress responses will be investigated (‘biotic interactions vs. environmental filtering’). The analysis and development of methods will use high performance computing systems.

We see an enthusiastic and highly motivated candidate

who already has in-depth knowledge of one or more script or programming languages, and who enjoys being involved in the field work for this project, even though the latter is not the core task of this subproject. In addition, it is expected that the students and doctoral candidates of the various institutes regularly meet at one of the participating institutes. The experiments are conducted at the Rhein-Main Observatory in Hesse and require fieldwork for a period of two times two months (2020 and 2021). It is desired that the candidate obtains a PhD while working on this project.

Your profile: - University degree in Biology (MA, MSc). - Very good knowledge of molecular methods, preferably proven by a thesis. - Very good knowledge of one or several scripting or programming languages, preferably Python and/or C++. - Very good knowledge of statistical methods. - Fluent spoken and written English. - Driver licence class B or equivalent. - Furthermore, we expect that the candidate - Has a high level of interest in molecular-ecological research - is able to work independently - has good communication, organizational and team working skills.

Starting date: 01.02.2020 or 1.3.2020 Duration of project: 36 months Salary: TVL E13/ 65% Application deadline: 10.1.2020

The Zoological Research Museum Alexander Koenig (ZFMK) is one of three natural history research museums in the Leibniz Association and a leading institute in the documentation, research, and interpretation of animal biodiversity. The combination of classical museum work and various cutting-edge approaches with modern molecular laboratories at the Center for Molecular Biodiversity Research, bioinformatics sections and a state-of-the-art high-performance computing cluster offer a highly motivating and stimulating research environment. For more information about the museum see <http://www.zfmk.de>. The application should include: - Letter of motivation (relevant skills, experience and research interests) - Curriculum vitae - Official MSc certificates - Contact details of two academic references

The ZFMK advocates gender equality and seeks to promote the careers of women in the areas in which they are underrepresented and therefore urges women with relevant skills to apply. Similarly, equally qualified severely handicapped applicants will be given preference.

Please submit your application electronically as a single PDF file until January 10th, 2020 to Mrs. Heike Lenz: h.lenz@leibniz-zfmk.de. Questions concerning the project may be directed to

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

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ArizonaStateU TeachingEvolution

Assistant Professor in Biology Education Research Arizona State University: The College of Liberal Arts and Sciences: School of Life Sciences

Description

The School of Life Sciences (SOLS) at Arizona State University invites applications for a full time, tenure-track Assistant Professor in the area of biology edu-

cation research with a focus on research that impacts diversity, equity, and inclusion. Anticipated start date is August 2020. Learn more about what The College of Liberal Arts and Sciences has to offer by visiting <https://thecollege.asu.edu/faculty> and the School of Life Sciences <https://sols.asu.edu/>. We seek to expand the group of discipline-based education researchers focused specifically on biology education research at the undergraduate level. The successful candidate will be expected to develop and maintain an innovative, independent, extramurally funded research program, provide excellent classroom instruction as assigned by SOLS, and contribute to curriculum development. The suc-

successful candidate will mentor students and postdoctoral fellows, interact with interdisciplinary faculty at ASU, and provide service to the school, college and university. The successful candidate would join a newly created Research in Inclusive Science and Engineering (RISE) Education Center that is focused on both identifying inequities that lead to deficits in undergraduate science and engineering student learning and success and developing solutions to these inequities. The position comes with a competitive start-up package.

Qualifications

Minimum qualifications:

Must hold a bachelors or master's degree in a natural-science discipline and a doctoral degree in a field relevant to biology education research, by the time of appointment Candidates must have a proven track record of novel research and evidence of potential to develop funded research and generate scholarly articles in biology education.

Desired qualifications:

A record of publication in peer-reviewed journals Demonstration of excellence in teaching and/or mentoring Experience working in a multidisciplinary environment Experience with funded projects Research interests that impact diverse student populations.

Application Instructions

To apply, please click here < <https://apply.interfolio.com/72056> >, to submit required application materials. Materials shall include (1) a cover letter indicating interest in the position, (2) contact information (including phone number & email addresses) for three references who may be contacted at a later stage of consideration, (3) a comprehensive curriculum vitae that includes a complete publication and grant funding record, (4) up to three representative publications, (5) a statement of research vision and plans (3 pages limit), (6) a statement of teaching philosophy/experience (3 pages limit), and (7) a statement addressing how your past and/or potential contributions to diversity and inclusion will advance ASU's commitment to inclusive excellence and how the candidate's research would impact diversity and inclusion (3 page limit). All application materials must be sent electronically.

Application deadline is January 19, 2020. Applications will continue to be accepted on a rolling basis for a reserve pool. Applications in the reserve pool may then be reviewed in the order in which they were received until the position is closed.

Supriya K <supriyaknair@gmail.com>

AustralianNationalU SoftwareDeveloper

A software developer position is available for the development of the IQ-TREE software (<http://www.iqtree.org>). The position is funded by the Chan-Zuckerberg Initiative for one year at the Australian National University, academic salary level B, AU\$ 99,809 - V 106,488 (depending on experience) plus 17% superannuation. The position is available from March 2020 or as soon as possible thereafter.

The software developer will report directly to Dr. Minh Bui and Dr. Rob Lanfear. Our groups are broadly working on models and methods for phylogenetic inference. The successful candidate will be part of the IQ-TREE development team and actively involved in IQ-TREE workshops and hackathons. The tasks of the software developer include:

- * Advanced programming and software development in C++.
- * Work with a small development team to:
 - Implement an open standard and API for phylogenetic models.
 - Improve the speed and scalability of IQ-TREE for ultra-large genomic data.
- * Organise an IQ-TREE hackathon.
- * Contribute to the IQ-TREE documentation.
- * Support users and fix bugs.

Applicants should have: a Masters or PhD degree in computer science, bioinformatics, or a related area; demonstrated skills in C++ programming and high performance computing; demonstrated ability to write efficient code and rigorous tests; the ability to work both independently and as part of a small team; enthusiasm for open-source software and community building.

Please send your applications to m.bui (at) anu.edu.au until January 15, 2020. Applications include a CV with contact details of two referees and a letter of motivation (1 page).

m.bui@anu.edu.au

BathU TeachingConservationBiology

Teaching Fellow (part-time, fixed-term post) <https://www.bath.ac.uk/jobs/Vacancy.aspx?ref=CC7357> An opportunity has arisen within the University's Department of Biology and Biochemistry for a part-time Teaching Fellow in Conservation Biology and Sexual Conflict.

Teaching responsibilities will include the delivery of lectures, seminars, workshops and tutorials together with the development of new teaching materials.

You should hold a first degree and a postgraduate qualification related to Conservation Biology and/or Behavioural Ecology. Also, being a strong team player and able to work on your own initiative within a dynamic environment. A track record in the delivery of a high quality student learning experience is desirable but not essential.

This is a part-time role (29.2 hours per week) for up to 24 weeks until June 2020.

For an informal discussion about this post please contact Dr Chris Todd, Director of Teaching (bss-cmt@bath.ac.uk), however, please ensure that applications are submitted via the University website.

Job title Teaching Fellow (part-time, fixed-term post)

Department Biology & Biochemistry

Salary Starting from 33,797, rising to 40,322 pro rata

Grade Grade 7

Placed on Thursday 19 December 2019

Closing date Monday 06 January 2020

Interview date To be confirmed

Reference CC7357

Tamas Szekely <bssts@bath.ac.uk>

CoeC TeachingEvolution

<https://www.coe.edu/why-coe/discover-coe/human-resources/careers/assistant-professor-biology> Coe College seeks applicants for the role of Assistant Professor of Biology.

Coe College invites applications from dynamic, student-centered individuals for a full-time, tenure-track position of assistant professor in the Department of Biology to begin in the Fall of 2020.

Primary responsibilities include designing and teaching an upper-level elective in the candidate's field of expertise, as well as teaching in both of the first-year biology courses designed for majors with their requisite labs. The ability to teach courses such as vertebrate biology, comparative anatomy, evolution, the diversity of life or similar topics is also desirable. When course rotations allow, participation in interdisciplinary and First-Year Seminar teaching is also expected. The normal course load typically includes two lecture courses and two labs per semester. Non-teaching responsibilities include student-faculty research, student advising, prospective student recruitment and committee work.

Required Qualifications:

- Ph.D. in integrative, vertebrate or organismal biology, zoology or a related field, with post-doctoral experience strongly preferred.
- Demonstrate a commitment to excellent teaching, including the use of inclusive pedagogies along with strong mentoring and academic support of diverse undergraduate student populations.
- An active research agenda that can be modified for undergraduate research, with a publication record in appropriate scientific journals in the candidate's field of expertise. Previous experience working with undergraduates is preferred.

The department is interested in applicants who will complement our commitment to diversity and inclusiveness among students and faculty, and who will enhance and expand the expertise and experiences represented in the department. This position is new within our growing department and is open with respect to sub-specialty. <https://www.coe.edu/academics/majors-areas-study/biology> *To Apply:*

Applications should be sent to <https://apply.interfolio.com/70157> and should include a cover letter, curriculum vitae, undergraduate and

graduate transcripts and statements on both research interests and teaching philosophy. Candidates should also arrange to have three letters of recommendation, at least one of which documents the candidate's teaching experience and ability to work with undergraduate students, sent to Interfolio.

Review of applications will begin on 01/10/2020 and will continue until the position is filled.

Department Profile:

The Department of Biology offers a Bachelor of Arts degree with potential additional emphasis in environmental science, molecular biology or neuroscience. The major has been expanding in the past five years and we graduate approximately 50 undergraduate biology majors per year, making it one of the largest majors on campus. The department also offers courses in service for the college's nursing and kinesiology programs, as well as for general education. There are seven full-time and three part-time faculty with expertise in a wide variety of disciplines, as well as a laboratory manager. Additional faculty and professionals in other departments within the college as well as other nearby institutions provide excellent opportunities for interdisciplinary collaboration. A recently renovated building (Peterson Hall) is shared with the chemistry and physics departments and contains space for coursework and the college's natural history collections. The department houses modern laboratory space that includes dissection hoods, a greenhouse and analytical and molecular equipment. The college's off-site Wilderness Field Station is located about 12 miles north of Ely, Minnesota in the 2.5 million-acre Superior National Forest on remote Low Lake. Groups paddle directly by canoe from the field station into the Boundary Waters Canoe Area Wilderness, expanding the field station "classroom." This area is part of the largest and most pristine wilderness area east of the Rocky Mountains. <https://www.coe.edu/academics/coe-difference-centers-and-programs/off-campus-study/wilderness-field-station>

Coe is committed to fostering a multicultural environment and encourages applications from individuals who will help fulfill that goal. We value the input of multiple viewpoints and diverse perspectives and aim to create an academic community that is rich with cultural, social and intellectual diversity. Coe College is an equal opportunity employer. For more

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mcmaster.ca/~brian/evoldir.html

ColumbiaU ResTech EvoTickPathogens

The Diuk-Wasser in the Dept of Ecology, Evolution and Environmental Biology is looking to hire a full time lab technician/manager for molecular and field work on tick-borne disease pathogens.

The lab's work focuses on studying the ecology of tick-borne pathogens by collecting field samples during the summer months, conducting quantitative PCR and tissue culture and animal-tick transmission experiments during the academic year. The technician would assist in all these activities, help order reagents for the lab as well as help coordinate and prepare for the field sampling season.

The ideal candidate will have experience with DNA extractions and quantitative PCR, will have previous field experience (not necessarily collecting ticks) and have experience working with laboratory animals (optional).

Minimum qualification:

Bachelor's Degree in the biological sciences Experience working in a molecular laboratory and some field experience.

Essential Functions 1. Strong organizational skills evidenced in recommendation letters. 2. Molecular experience: DNA extraction, quantitative PCR. 3. Field experience 4. Laboratory animal experience (optional)

Candidates can apply here: <https://opportunities.columbia.edu/en-us/search/?job-mail-subscribe-privacy=agree&search-keyword=504881%20Matthew+Combs> <matthewcombs2@gmail.com>

GreifswaldU Biomathematics

Dear evoldir users,

I herewith want to bring the following open permanent position to your attention (see below). Please forward it to all potentially interested candidates.

Greifswald is a beautiful tourist town in northeastern Germany, directly located at the Baltic Sea. The maths department is particularly renowned for its unique biomathematics study programmes with a focus on evolutionary biomathematics like e.g. phylogenetics, but also hosts various other mathematical research groups. The successful applicant to the announced position is expected to contribute towards at least one of the Institute's key research areas.

In case you have any questions, please do not hesitate to contact me.

The link to the job description can be found below or also at the following link: <https://www.uni-greifswald.de/-universitaet/information/stellenausschreibungen/-wissenschaftliches-personal/stellenausschreibung/-n/wissenschaftlicher-mitarbeiterin-institut-fuer-mathematik-und-informatik-19sa48-56399/> Kind regards, Mareike Fischer

Prof. Dr. Mareike Fischer

Biomathematics and Stochastics

Institute for Mathematics & Computer Science Greifswald University Walther-Rathenau-Str. 47 Office 3.15 17487 Greifswald GERMANY

+49 (0) 3834 420 46 43

mareike.fischer@uni-greifswald.de

Job Advertisement No. 19/Sa48 At the University of Greifswald's Institute of Mathematics and Computer Science (Faculty of Mathematics and Natural Sciences) there is a job vacancy expected to be available from 1 April 2020, subject to budgetary regulations, for a part time (50%) Teaching and Research Assistant. The position on offer is permanent. Payment will be made according to pay group 13TV-L Wissenschaft.

Job Description: The main focus of the job is the lecturing and teaching of mathematics to students of natural sciences. The teaching load is defined in LVVO M-V. The holder of the position will teach mathematics and statistics to students from other subject areas, as well as students enrolled in the institute's mathematics and biomathematics degree courses. The successful applicant will also be responsible for administrative tasks.

Job Specification: Applicants are required to have obtained a relevant doctorate and should have solid teaching experience. The Institute would support possible work towards a habilitation thesis that is produced outside of the contract's working hours. The successful candidate is expected to contribute towards at least one of the Institute's key research areas.

This vacancy is open to all persons, irrespective of gen-

der.

The University would like to increase the proportion of women in areas in which they are underrepresented and thus applications from women are particularly welcome and will be treated with priority if they have the same qualifications and as long as there are no clear reasons which make a fellow applicant more suitable.

Severely disabled applicants with the same qualifications will be considered with preference.

In accordance with § 68(3) PersVG M-V, the Staff Council will only be involved in staff matters of the academic or artistic staff on request.

Unfortunately, the application costs will not be reimbursed by the state of Mecklenburg-Vorpommern.

Applications comprising all usual documents (CV, academic certificates) should be sent preferably via email (one PDF file) with reference to the job advertisement number 19/Sa48by15/01/2020 and addressed to

Universität Greifswald Institut für Mathematik und Informatik Frau Prof. Dr. Mareike Fischer Walther-Rathenau-Str. 47 17489 Greifswald

e-mail: ag-fischer-biomathe@uni-greifswald.de

Mareike Fischer <email@mareikefischer.de>

HolarU Iceland QuantGenetics

Assistant professor- position available in the dept. of Aquaculture and Fish Biology

Hólar University's Department of Aquaculture and Fish Biology invites applications for the full time position of an Assistant Professor. We are seeking a highly qualified individual with knowledge and experience in the field of quantitative genetics, ideally with knowledge on animal breeding and aquaculture.

A successful applicant will: - Teach undergraduate and graduate students - Conduct research in their field and supervise graduate students - Take active part in the scientific aspects of the selective breeding program of Icelandic Arctic charr, hosted by the department - Participate in international projects and collaboration - Take active part in the quality work and administration of the Department and the University

Requirements regarding education and qualifications: - Doctoral degree in the field of biology and preferably in quantitative genetics - Experience in research on

quantitative genetics, e.g. related to broodstock management and selection - Experience in securing research funding - Good publication track record - Good human relations skills and the ability to collaborate in a modern academic environment - Responsibility, initiative, independent work and organizational ability

The Department of Aquaculture and Fish Biology at Hólár University offers a diploma program in aquaculture and a Master's program in aquatic biology, as well as a Nordic Master's program in Sustainable Production and Utilisation of Marine Bio-resources. In addition, the department staff teaches specialised topics in aquaculture, as a part of the United Nations University's Fisheries Training Program. Furthermore, academic staff in the department supervises PhD and research internship students, mostly from abroad. The department has a strong research profile and is responsible for the national selective breeding program of Arctic charr for Icelandic aquaculture companies. The department has offices and research facilities in VeriÁ° in SauÁ°árkrókur and on campus at Hólár. The community in Hólár is family friendly, boasts a wealth of history and natural beauty and provides opportunities for different outdoor recreational activities. See www.holar.is and www.holaraquatic.is.

The evaluation of academic merits will be in accordance with the Act on Public Universities No. 84/2008 and regulations on recruitment and promotion of academic staff at Hólár University. Salary is in accordance with the current collective wage and salary agreement between the relevant union, and the Minister of Finance. Otherwise, rights and obligations follow the Act 70/1996 on the Rights and Obligations of Civil Servants.

This is a full time position. Application deadline is December 27th, 2019 and it is preferred that the person hired will be able to start as soon as possible. For further information, please contact the Head of Department of Aquaculture and Fish Biology, Prof. Bjarni Kristófer Kristjánsson, +(354) 455-6386, bjakk@holar.is

Applications should be sent by email to um-soknir@holar.is and marked "Assistant professor aquaculture". The application should include copies of academic records, CV and copies of publications the applicant wishes to be considered. A cover letter describing previous experience in teaching and research, is required. Furthermore, the cover letter should include ideas for future research and research collaboration. The applicant shall secure references from two individuals that should be sent to the above mentioned email address.

All applicants will be informed when the hiring process is over.

– Dr. Bjarni K. Kristjánsson, Prófessor Hólaskóli - Háskólinn á Hólum/ Hólár University Hólár í Hjalteadal Iceland bjakk@holar.is Phone: +354 4556300 holar.is

Bjarni Kristófer Kristjánsson <bjakk@holar.is>

LundU Multicellular Evolution

Focusing on the evolutionary changes within tissue that may have led to the success of complex multicellular organisms, our aim is to test implications of the hypothesis of refined stemness control. To further explore the model, studies will target hypoxic gene regulation and carbonic anhydrases. Newly defined questions can be explored within cell- and molecular biology techniques (e.g. RNA-sequencing, cell culturing, immunohistochemistry), bioinformatics, and in vivo biological experiments. In addition, the explorations would involve broad literature studies. We seek a brave and ambitious postdoc willing to explore uncharted scientific terrain.

Qualifications required: 1. The applicant should have an interest in the evolution of life and broad experience in biology or of developmental and geobiological questions. 2. The applicant should hold a PhD degree (after 2017-01-13) in the biological sciences with experience in bioinformatics, transcription factor regulation, and/or wet lab experiments. 3. The applicant should be an expert in carbonic anhydrases, genetic evolution, cells stemness or invertebrate animal physiology. 4. The applicant should be used to defining and exploring research questions independently. 5. The applicant should be an ambitious scholar and keen on learning. 6. The applicant should have good communication skills as well as able to interact efficiently in a team. 7. Excellent spoken and written English.

The applicant should not have been employed by Lund University within the last two years in order to be able to receive a scholarship. PhD degree should not be more than three years old at the last day of applying. The scholarship amounts to 28.000 SEK/month and is normally paid three months in advance.

Placement: Translational Cancer Research at the Medical Faculty, LU Ref No: 2019/1607 Duration: 13 months Starting time: 13th of Jan 2020 Last day for applying: 16th of December 2019

For further information please contact: Emma Hammarlund, emma.hammarlund@med.lu.se

See posting here: <https://www.nature.com/>-

[naturecareers/job/postdoc-fellow-scholarship-in-research-of-the-evolution-of-multicellularity-lund-university-lu-712629](#) Application: Application stating the reference number V 2019/1607 and containing a CV, a personal letter, proof of dissertation and relevant documents should be addressed to: emma.hammarlund@med.lu.se.

Emma Hammarlund <emma.hammarlund@med.lu.se>

Lyon 3 Biodiversity

The LEHNA (Lyon, France) is consolidating its research and teaching activities in functional ecology. We are opening 3 positions: - Full Professor in functional ecology - Assistant Professor in biodiversity & hydrosystem functioning - Assistant Professor in plant community ecology

More details here: < <https://umr5023.univ-lyon1.fr/14-actualites/184-lehna-university-of-lyon-1-opens-three-permanent-academic-positions-in-functional-ecology-functioning-of-hydrosystems> >

Tristan Lefebure <tristan.lefebure@gmail.com>

MonashU 2 EvolutionaryGeneticsEcol

The School of Biological Sciences at Monash University (Melbourne, Australia) is seeking applicants for a pair of jobs that are likely to be of interest to Evoldir readers.

The specific searches are in “Ecology” (including but not limited to evolutionary ecology):

<http://careers.pageuppeople.com/513/cw/en/job/-601639/lecturer-senior-lecturer-ecology> and “Genetics/Genomics” (including but not limited to evolutionary genetics):

<http://careers.pageuppeople.com/513/cw/en/job/-601641/lecturersenior-lecturer-genetics-andor-genomics>

The School seeks to hire at the academic rank of Lecturer or Senior Lecturer, which is roughly equivalent to Asst. or Assoc. Professor in the N. American system.

Monash University is one of the top universities in Australia and consistently ranked within the top 100 univer-

sities worldwide. It offers excellent research and teaching support, and is a friendly and collaborative place to work. The School of Biological Sciences is comprised of about 40 full-time faculty members with research interests spanning most areas of biology, including strengths in evolutionary biology research:

<https://www.monash.edu/science/schools/biological-sciences> <https://www.monash.edu/science/schools/-biological-sciences/research/evolution-in-a-changing-world> More broadly, Australia is a great location for evolutionary research, with strong opportunities for research funding (funding rates for our major national grants and fellowships are typically about 20%), and a large and interactive community of evolutionary biology researchers (<http://ausevo.com/>). Melbourne and its vicinity are great places to live.

tim.connallon@monash.edu

NatI Sun Yat-sen U EvolutionaryBiology

The department of Biological Sciences in the National Sun Yat-sen University is seeking 1 candidates for tenure-track position (the assistant professor or higher level) in the field of biology.

1. Position: 1 assistant professor (or higher level) in the field of biology.
2. Required qualifications:
 - a. Hold a Ph.D degree.
 - b. At least 1 year postdoc. experience.
 - c. Publish at least 2 SCI papers as first or corresponding author within 5 years.
 - d. Contribute to teach undergraduate and graduate courses in biology.
3. Please submit a hard copy of your application, including (1) CV, (2) Certificate of Ph.D. degree and postdoc. (3) Publication list (Please provide the 5-year Impact Factor and category/rank information, and assign one paper as the primary publication), (4) Publication copies (2015-2020), (5) Teaching and research plan, and (6) Three letters of recommendation to Prof. Chiang, Yu-Chung . In addition, please send PDF files of item (1)-(5) to Dr. Lee (chlee@mail.nsysu.edu.tw). All application materials should be sent before February 29, 2020.

Prof. Yu-Chung Chiang

Chairman

Department of Biological Sciences

National Sun Yat-Sen University

#70, Lien Hai Rd., 804, Kaohsiung, TAIWAN

4. For questions, please contact Dr. Lee at chlee@mail.nsysu.edu.tw (Phone: +886-7-5252000 ext: 3620)

sphuang0711@gmail.com

PalmBeachAtlanticU TeachingBotanyGenomicsEvolution

Palm Beach Atlantic University Location: West Palm Beach, Florida- USA Start Date: August 2020 Application Date: December 20, but open until filled Type: Full- time

Description: The Department of Biology in the School of Arts & Sciences is seeking an Assistant Professor of Biology. We seek candidates with areas of expertise in botany, organismal biology, molecular biology, genomics, general biology, and animal physiology. Other specialties will also be considered. The faculty member will teach general biology courses and labs, as well as classes in their area of expertise. Excellent teaching is required. Limited research with undergraduate students is expected.

Qualifications: Ph.D. preferred.

Contact Robert Hegna (robert.hegna@pba.edu) with any questions about the position Application details found here: <https://www.pba.edu/human-resources/-faculty-admin-positions.html> ROBERT HEGNA <ROBERT.HEGNA@pba.edu>

RutgersU Director PinelandsFieldStation

Director of the Pinelands Field Station, Rutgers, the State University of New Jersey

The Department of Ecology, Evolution and Natural Re-

sources (Rutgers-New Brunswick) and the Department of Biology (Rutgers-Camden) jointly invite applications for a tenure-track faculty position in ecology at the rank of Associate or beginning Full Professor to serve as the Director of the Rutgers Pinelands Field Station. The Pinelands Field Station includes offices, research laboratories, and living quarters for visiting scientists. It provides easy access to the full range of ecosystems in the New Jersey Pine Barrens for research and field study, and it serves as a venue for the delivery of field courses. The Station is located at the Silas Little Experimental Forest in the UNESCO New Jersey Pinelands Biosphere Reserve, and it shares its site with the USFS - Northeastern Research Station.

We are searching for a highly creative, productive and collaborative scientist whose work addresses fundamental ecological or eco-evolutionary topics in aquatic or terrestrial systems using field and/or laboratory techniques. The candidate's research should include a clear existing or potential connection to the New Jersey Pine Barrens ecosystems. The successful candidate must demonstrate the desire and skill necessary to develop a research program capable of attracting external funding, experience in mentoring graduate and undergraduate students, a proven ability to teach both graduate and undergraduate ecology courses. Preference will be given to candidates with a demonstrated capacity for public outreach. The successful candidate will contribute to the core curricula of undergraduates and will offer courses in their area of expertise for advanced undergraduate and graduate students. They will also be expected to mentor undergraduate and graduate research students. This position requires a PhD at the time of appointment.

Applicants should submit a single PDF file containing the following: (1) a cover letter (2) a curriculum vitae (3) a 3-page vision statement for their anticipated research program in this position (note this is not simply a summary of past work) (4) a statement of teaching experience and interests (5) a statement detailing their commitment to diversity and inclusion, which includes evidence of how they have worked to support groups traditionally underrepresented in STEM through their research, teaching, and/or service activities (6) three selected publications. (7) names and contact information for three people from whom letters can be solicited.

All requested materials should be submitted by 24 January 2020 via <https://jobs.rutgers.edu/postings/106827> . Siobain Duffy <duffy@sebs.rutgers.edu>

Smithsonian TropicalInsects

A PhD position is available for a highly motivated candidate to integrate genomic and trophic information into long-term monitoring of tropical insects.

A highly motivated postgraduate student is sought to join a project funded by the Czech Academy of Sciences integrating genomic and trophic information into long-term monitoring of tropical insects. More specifically the project will study the main insect pollinators of Barro Colorado Island, Panama. Current evidence suggests insect pollinators to be undergoing population declines worldwide with catastrophic consequences to biodiversity and human crop production. These population declines are difficult to demonstrate using census data alone. High-throughput sequencing techniques such as RAD-seq allow to study fine-scale population genomic patterns such as population structure and effective population size. Using collections from long-term monitoring efforts allow to study how populations have been recently affected by factors such as climatic change and anomalies. We seek to analyze recent population changes of diverse insect pollinators (euglossine bees, Cyclocephalini beetles and butterflies). The ForestGEO Arthropod Initiative < <https://forestgeo.si.edu/node/-145497/> > has been monitoring arthropod assemblages on Barro Colorado Island, Panama, since 2009. We will use these data to infer population genomic changes in the 25 most common pollinator species. We will improve forecast of population dynamics using flower resource, determined from DNA pollen metabarcoding and litter-fall trap data, as covariates of pollinator time-series.

The student will implement field work in Panama and will be involved in laboratory analyses at the University of South Bohemia in the Czech Republic. His/her main responsibility will be to develop a sound analytical framework as to ultimately improve forecast of population dynamics of pollinators on Barro Colorado Island, one of the most intensively studied tropical forest in the world. Developing related directions of research will also be encouraged. The successful applicant will be based at the University of South Bohemia < https://www.jcu.cz/?set_language=en > in Ceske Budejovice and will perform field work at Barro Colorado Island < <https://stri.si.edu/facility/barro-colorado> >. He/she will join the ForestGEO Arthropod Initiative < <https://forestgeo.si.edu/node/145497/> >, led by Dr

Yves Basset < <https://stri.si.edu/scientist/yves-basset> >, based at the Smithsonian Tropical Research Institute < <https://stri.si.edu/> >. The Arthropod Initiative represents an international research group, including Dr Greg Lamarre < https://www.researchgate.net/profile/Greg_Lamarre > and Dr Daniel Souto < https://www.researchgate.net/profile/Daniel_Souto-Vilaros >, who are experts in tropical insect ecology and insect genomics.

The deadline for applications is 31 December 2019, with a possible start date of March 1st 2020. The student will receive a salary which covers living expenses in the Czech Republic and a stipend from the University of South Bohemia, during the 4-year PhD course. The working language is English and applicants from all countries are eligible.

Required

A master's degree, preferably in the fields of entomology or ecology (non-negotiable requirement).

Experience in insect ecology and basic molecular ecology (e.g. DNA extraction, PCR).

Ability to work independently and strong interest in bioinformatics.

Fluency in spoken and written English (Spanish is optional but recommended).

Experience in statistical analyses and proficiency with R.

Desirable

Previous experience of field work in the tropics.

Experience in insect taxonomy, especially pollinators.

Experience in handling and managing genomic data.

Scientific publications related to insect ecology and/or insect genomics.

To apply please send one single pdf document including a cover letter stating qualifications, previous work and motivation, and CV plus two reference letters to Yves Basset (bassety@si.edu).

Yves Basset, PhD

ForestGEO Entomologist

Smithsonian Tropical Research Institute, Apartado 0843-03092, Balboa, Ancon,

Panama City, Republic of Panama. Ph +507 212 8233, Fax +507 212 8148, Email bassety@si.edu

Working hours at STRI: Mondays to Wednesdays

<https://stri.si.edu/scientist/yves-basset> "Basset, Yves" <BASSETY@si.edu>

StMichaelsC EvolutionaryMicrobiology

Assistant Professor of Biology The Department of Biology at Saint Michael's College seeks a dynamic teacher-scholar for a full-time, tenure-track faculty position as an Assistant Professor of Biology beginning in August of 2020. The successful candidate will be expected to participate in team teaching of introductory courses in the Biology and/or Health Science majors as well as develop and teach an upper-level lecture and laboratory course in microbiology. This upper level course should be designed to enhance the department's offerings for students interested in graduate opportunities in health-care and/or environmental careers. Individuals with additional expertise in nutrition or other health related fields are particularly encouraged to apply. The successful candidate must establish and maintain a productive scholarship program that provides opportunities for undergraduate student involvement in microbiology or a related field.

Requirements: *PhD in biology or related field *College-level teaching experience *Willingness to participate as part of a team of colleagues with the primary focus being the learning and development of our students An offer of employment will be contingent upon the successful completion of a background check.

To apply, submit the materials listed below to <https://smcvt.interviewexchange.com/-jobofferdetails.jsp?JOBID=117462> Curriculum vitae Cover Letter highlighting your most relevant qualifications for this position Statement of teaching philosophy Research summary Names of three referees; references will be requested from top candidates at a later date

Review of applications will begin on December 16th, 2019 and continue until the position has been filled.

Saint Michael's College delivers a compelling, world-class education in a beautiful Vermont setting. Our connected community allows students to form close relationships with each other and accomplished faculty and staff members, providing an ideal learning environment where they have the space and support to challenge themselves and their peers. As a fully residential college located minutes from Burlington, one of the country's top-rated college towns, Saint Michael's offers an unpar-

alleled mix of academic, spiritual, cultural, service and wilderness experiences. Saint Michael's is among the elite ranks of only 286 colleges and universities nationwide allowed to host a Phi Beta Kappa national honor society chapter on campus, while the U.S. News and World Report mentioned that "St. Michael's infuses its campus culture with a spirit of serving others," and "creates a feeling of camaraderie." The College is included in the Princeton Review's Best 384 Colleges, earning a spot on the Green College Honor Roll for demonstrating a strong commitment to sustainability. Surrounded by the beautiful Green Mountains and Lake Champlain, and only 3.5 hours from Boston and 1.5 hours from Montreal, the area offers abundant recreational and cultural opportunities. To learn more, visit smcvt.edu.

Saint Michael's College, inspired by our Edmundite Catholic mission, is committed to diversity and inclusion across our campus community. We are committed to attracting and supporting faculty and staff that fully represent the racial, ethnic, religious, and cultural diversity of the nation, and we actively seek applications from underrepresented groups. Applicants are invited to include in their cover letter and other documents information about how they may contribute to our goal through their research, teaching and/or service.

Saint Michael's College is committed to a policy of equal employment opportunity, in compliance with applicable provisions of state and federal law that prohibit discrimination in employment on the basis of race, color, sex, gender identity, age, ancestry, national origin, place of birth, religion, sexual orientation, veteran or military service status, HIV-positive test result status, genetic information, disability, or any other legally protected characteristic, as such characteristics and prohibitions are defined by applicable law. The College will not rely inappropriately on such characteristics, or upon related stereotypes or biases, in making employment-related decisions. Also, unless doing so would result in an undue hardship or otherwise would not be required by applicable law, the College will make reasonable accommodations for qualified individuals with known disabilities, as well as any employee who is limited in her ability to perform the functions of her job because of pregnancy, childbirth or a medical condition related to pregnancy or childbirth.

"Loisel, Dagan A" <dloisel@smcvt.edu>

UAlaskaSoutheast AnimalPhysiologist

Tenure-track Assistant Professor faculty position at the University of Alaska Southeast in Animal Physiology, those with an evolutionary or genomics focus are encouraged to apply.

The Department of Natural Sciences at the University of Alaska Southeast in Juneau is seeking qualified applicants for a tenure-track position in Animal Physiology to begin August, 2020. This position will support undergraduate Bachelor of Science programs in Biology, Marine Biology, and program emphases in Fisheries through teaching, research and service. Applicants must have a Ph.D. in Biology, Marine Biology, or related field. The successful applicant will be responsible for teaching lower and upper division courses in biology, physiology, and marine biology, including courses in their area of expertise.

Faculty at UAS are expected to establish an externally funded research program that involves undergraduate students. Preference will be given to physiologists with a background in invertebrate zoology, evolutionary biology, gene expression, or developmental biology, although other fields will be considered, and those who can provide local research and educational opportunities for students. UAS sits on the shores of the Alexander Archipelago an expansive and relatively pristine marine ecosystem of significant ecological and cultural importance and we particularly encourage applicants drawn to the extraordinary opportunities for marine research that our location provides.

UAS is a small liberal arts university with academic programs in the sciences that take advantage of the natural environment adjacent to the campus. UAS Juneau campus is located 12 miles north of downtown Juneau in a beautiful setting overlooking Auke Bay on one side and Auke Lake and the Mendenhall Glacier on the other. Juneau (population 32,000), the capital of Alaska, is a picturesque city with a mild, maritime climate, exceptional outdoor and recreation opportunities, and a lively arts community. Facilities that support the marine biology and biology programs include a seawater system, teaching and research laboratories.

This is a 9-month per year, tenure-track position with a competitive salary and package of benefits including

negotiable relocation funds. This position is represented by a collective bargaining unit agreement.

The position will remain open until filled; however, first consideration will be given to applications received by December 15, 2019. Interested applicants should submit:

1. Cover letter of application.
2. Curriculum Vitae.
3. Statement of teaching philosophy.
4. Statement of research experience and plans.
5. Copies of graduate and undergraduate transcripts. Unofficial copies are acceptable at the time of application, official transcripts will be required from the successful candidate.
6. Names and contact information of three professional references.

Questions concerning this position should be directed to: Dr. Carolyn Bergstrom, Chair of the search committee cabergstrom@alaska.edu.

The University of Alaska Southeast is an equal-opportunity, affirmative-action institution committed to cultural diversity and compliance with the Americans with Disabilities Act. We *strongly* *encourage* applications from women, minorities, individuals with disabilities, veterans, and candidates who share our commitment to diversity.

For additional information about UAS, please visit our website at www.uas.alaska.edu .
"cabergstrom@alaska.edu" <cabergstrom@alaska.edu>

UArizona EvolutionaryBiol

The Department of Ecology and Evolutionary Biology at the University of Arizona is accepting applications for an Assistant or Associate Professor position (tenure-track), beginning in August 2020. The ideal candidate in this broadly defined search will have a strong conceptual basis to their research, addressing fundamental questions in the fields of Ecology and/or Evolutionary Biology. We are particularly interested in candidates whose current or future research plans focus on adaptation to climate change and/or human health. We seek applicants with an exceptional track record to develop an internationally recognized research program that complements current research in the department and uses integrative and state-of-the-art approaches. A focus on any organism or system is welcome.

Founded in 1975, the Department of Ecology and Evolutionary Biology at UA was among the first departments of its kind in the world, pioneering a model for the

organization of biology that is now in use in many of the world's leading universities. Our focus is broad, spanning levels of organization from molecular genetics and organismal function as they relate to evolution and ecology, from population and community ecology to biological diversity, phylogeny and macroevolution. Our program's unique personality comes from our faculty members who combine theory and empirical work and take an integrative approach to blending disciplines in their research and teaching. We are excited about building an inclusive and diverse environment for research, education, and service.

Tucson is a fun, affordable, welcoming, and livable city (and is now a UNESCO World City of Gastronomy). We have great weather and are surrounded by spectacular scenery, including numerous national parks and wilderness areas. The Tucson area has a surprising range of habitats, amazing subtropical biodiversity, and is only a few hours' drive from numerous tropical habitats in Mexico.

Duties & Responsibilities * Establish and maintain a competitive research program. * Teach at the graduate and undergraduate levels and contribute to mentoring students, including those from underrepresented backgrounds. * Participate in outreach and contribute to departmental, college and university service. * Develop innovative approaches to enhancing student engagement, increasing diversity and expanding collaborations with community and business partners.

Application Procedure To apply, please submit an on-line application for job posting F22225 via the following link: <http://uacareers.com/postings/44107> Applications should include: (1) a cover letter describing how the applicant's research relates to the focus of this search; (2) a current CV; (3) a two to three-page statement of research interests; (4) a one-page statement of teaching philosophy; (5) three reprints or preprints of the candidate's publications (uploaded as publication samples); and (6) contact information for three referees who will provide a letter of recommendation.

All materials except for the letters of recommendation can be uploaded through the UA Careers website; on the online application, candidates will be asked to provide contact details for referees who will be providing letters of recommendation and the University will contact those individuals directly. Review of applications will begin January 15, 2020. Applications will be accepted until January 21, 2020.

At the University of Arizona, we value our inclusive climate because we know that diversity in experiences and perspectives is vital to advancing innovation, critical thinking, solving complex problems, and creating an

inclusive academic community. As a Hispanic-serving institution, we translate these values into action by seeking individuals who have experience and expertise working with diverse students, colleagues, and constituencies. Because we seek a workforce with a wide range of perspectives and experiences, we provide equal employment opportunities to applicants and employees without regard to race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, or genetic information. As an Employer of National Service, we also welcome alumni of AmeriCorps, Peace Corps, and other national service programs and others who will help us advance our Inclusive Excellence initiative aimed at creating a university that values student, staff and faculty engagement in addressing issues of diversity and inclusiveness.

"rad3@email.arizona.edu" <rad3@email.arizona.edu>

UCalifornia Los Angeles Biodiversity Informatics

Software Developer in Biodiversity Informatics

We are seeking a Software Developer in Biodiversity Informatics (SDBI) to develop new open source scientific software to make specimen-based data (phenotypic, genomic, spatial) easily accessible and ready to use in taxonomy and other downstream studies. This will make specimen-based research transparent, explicit, reproducible, and extensible. The SDBI will develop a computational workflow to integrate data and analyses via modular pipelines, automatize "data wrangling", generate data-driven interfaces to interact with "big data", and create dynamic/reactive documents native to the Web. This is a great opportunity to work in a small research group that uses computational biology to support research and training in quantitative taxonomy and evolutionary biology.

The ideal candidate will be comfortable with databases (relational or graph) and experienced in writing efficient code and documentation in at least one commonly used programming language (Python, R, Julia, Ruby, C/C++, etc). The BIR will be familiar with standard practices in scientific computing and software engineering including version control, continuous integration, test-driven development, and a focus on minimum viable products.

The SDBI will be part of a research group in the De-

partment of Ecology & Evolutionary Biology at the University of California, Los Angeles. The SDBI will work and report to the principal investigator and other team members, participate in the organization and management of data sets, and ensure the integrity of complex data sets.

Qualifications:

Required:

- PhD in related area (bioinformatics, biodiversity, ecology evolution systematics) - At least 2 years of related Software Development in Biodiversity Informatics experience - Strong background in databases - Programming and scripting experience (e.g. bash, Python, R, Julia, Ruby, C/C++) - Experience with version control technology such as Git - Experience with continuous integration technology such as Travis CI - Excellent verbal, written, and interpersonal communication skills

Preferred:

Experience using HPC and parallel systems
Experience with Machine Learning
Experience with JavaScript
Experience creating technical documentation
Experience with cloud technologies including: AWS, Docker, CyVerse

Application:

Please send a cover letter describing your qualifications and interest, and your updated CV. Make sure to include links to your repositories (e.g. GitHub, GitLab, BitBucket). Include the names and contact information (email) of 2 references.

If you have any questions and to apply to the position, please email fzapata@ucla.edu with the subject line Software Developer in Biodiversity Informatics. The position will start as soon as possible and will remain open until filled.

Job Location:

Los Angeles, CA

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: UC Nondiscrimination & Affirmative Action Policy. (<http://policy.ucop.edu/doc/4000376/-NondiscrimAffirmAct>)

Felipe Zapata <fzapata@ucla.edu>

UCL London MicrobialGenomics

Assistant/Associate Professor in Microbial Genomics
UCL Genetics Institute; London Full Time; open-ended post

The—UCL—Genetics Institute (UGI), and the Research Department of Genetics, Evolution and Environment (GEE), are seeking to recruit a colleague in the area of Microbial Genomics.

The post holder's research interests may include, but are not restricted to: microbial evolution; microbial ecology; clinical microbiology; metagenomics. We particularly welcome applicants whose research takes advantage of advanced bioinformatic, statistical and computational tools.

For further details about the vacancy and how to apply online please go to—<https://tinyurl.com/sfgx88b>. Informal enquiries about the post are welcome to Professor Francois Balloux, Chair of the Search Committee <f.balloux@ucl.ac.uk>.

Closing Date: 13 January 2020 Interview Date: Seminars and interviews will be held on 5th and 6th March 2020

f.balloux@ucl.ac.uk

UGorgia TeachingInsectEvolution

Title: Assistant Professor - Entomology Education Department: CAES Entomology Posting Number: F0587P

Position Summary: This is a new tenure track Assistant Professor position in entomology education. The position is expected to be 50% Instruction and 50% Research and will be located on the Athens campus. It will contribute to teaching undergraduate and graduate entomology courses and build an externally funded research program in Entomology Education that contributes to our core Departmental research strengths (Pollinator Health & Conservation; IPM, Biological Control & Applied Ecology; Evolutionary Biology & Systematics; Insect-Microbial Interactions; Biotechnology, Endocrinology & Genomics; Urban Entomology; Vector Biology, Livestock & Medical Entomology; Wetland & Aquatic Ecol-

ogy). The successful candidate will be expected to spend approximately one half of their time teaching undergraduate/graduate courses (e.g., Outreach and Service-Learning in Entomology: ENTO 3300S, Entomology for Educators: ENTO 5730/7730E, coordinating seminars (ENTO 3000/8000, ENTO 3000/8000E) and internships (BTEC 3910 & ENTO 3910). Instructional expectations will also include teaching a course in the successful applicant's area of expertise and mentoring graduate students.

Other key duties will include: 1) Coordinating, recruiting and developing the undergraduate program, 2) coordinating and participating in student outreach, experiential learning, service-learning and distance learning components of the undergraduate programs, 3) providing undergraduate advising in coordination with the CAES professional advisor, 4) providing instructional and technical support to faculty members and the Department Head (example activities include instructional materials and technology development, instructional techniques, and specialized instructional skills), and 5) coordinating teaching program learning outcome assessment and evaluation activities.

Kevin Vogel, PhD

Assistant Professor Department of Entomology
The University of Georgia kjvogel@uga.edu
<http://blog.caes.uga.edu/vogellab/> Kevin J Vogel
<kjvogel@uga.edu>

UHawaii Director School of Life Sciences

The new School of Life Sciences at the University of Hawai'i at Mānoa invites applications for the position of Professor and Director to provide vision and leadership for its academic programs and scientific direction. The School of Life Sciences was recently created by the merger of the departments of Biology, Botany, and Microbiology and currently occupies three buildings on the University of Hawai'i flagship campus in Honolulu (Mānoa campus). A part of the School will be housed in a new building with modern teaching and research laboratories and access to a state-of-the-art microscopy and visualization core-facility, including a small animal MRI and micro CT.

The School of Life Sciences is home to the second largest academic program on campus, serving over 1300 undergraduate majors and 150 graduate students for degrees

in biology, botany, marine biology, microbiology, molecular cell biology, and zoology. Faculty research interests span all biological scales, with several focusing on Hawaiian study systems.

The Director of the unit is expected to be a distinguished leader in their field, with an active research program and a demonstrated track-record of leadership in an academic setting. The successful applicant will lead approximately 40 faculty and provide a vision for aligning the School of Life Science's research and instructional activities with local and national priorities. The Director will have the opportunity to strengthen existing research areas, develop new innovative initiatives in the School, and foster collaborations across the University of Hawai'i system.

Faculty responsibilities in the School of Life Sciences include teaching and developing undergraduate and graduate courses, supervision of student research, service to the university and professional community, and externally funded research programs.

Minimum Qualifications: 1. An earned Ph.D. in an area of the biological sciences or other related disciplines from an accredited institution. 2. Attained the rank of Professor or have demonstrated a record of comparable professional experience prior to appointment. 3. Two (2) years of professional experience in academic leadership at the level of department chairperson or higher or comparable professional experience. 4. Strong interpersonal communication and leadership skills. 5. Record of distinguished teaching, scholarship, research, publication, and/or professional activity and achievement. 6. Ability to establish and maintain effective working relationships with multiple constituencies.

Desirable Qualifications: 1. Ability to work in a diverse and multicultural environment. 2. A track record of leadership and collaboration in the submission of successful infrastructure proposals and training grants, ability to support and strengthen the unit's research enterprise at the undergraduate, graduate and faculty levels. 3. Be an effective advocate for resources at the university, state and national level.

To Apply:

Applicants are invited to submit a cover letter, CV, two-page statement on academic leadership and vision, and contact information for three professional references at <https://academicjobsonline.org/ajo/jobs/15746>. Application review will begin on January 20, 2020. Applications will be treated confidentially until finalists are chosen and consent is given for the search committee to contact references.

Inquiries: Dr. Robert Thomson, thomsonr@hawaii.edu,

(808) 956-6476; Dr. Kasey Barton, kbarton@hawaii.edu, (808) 956-8028

The University of Hawai'i at Mānoa is the flagship campus of the University of Hawaii system, a Carnegie "Doctoral University with Highest Research Activity", and a Land- Sea-, and Space-Grant institution. As documented by the Chronicle of Higher Education, the campus serves the most diverse population of both students and faculty among the nation's flagship campuses. The School of Life Sciences was recently created by the merger of the departments of Biology, Botany, and Microbiology at the University of Hawai'i's flagship campus. It hosts the second largest academic program on campus, serving over 1300 undergraduate majors and 150 graduate students for degrees in biology, botany, marine biology, microbiology, molecular cell biology, and zoology. Research interests of the 40 faculty members span all biological scales, with particular emphasis on local organisms and systems. Many faculty will occupy a modern, new building hosting research and teaching labs as well as core facilities. Our campus boasts two arboreta, two world class marine laboratories, and state of the art high performance computing, sequencing, imaging, metabolomics, histology, and flow cytometry core facilities. Access to diverse and unique field sites is unrivaled. The University of Hawai'i is an equal

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ULiverpool 4 Genomics

Four permanent positions in genomics, open-rank Lecturer - Professor (Assistant/Associate/Full Prof)

The position in Ecological or Evolutionary Genomics will be of most interest to this community, but applicants for the other three positions (Functional genomics, infection/microbiome genomics and Data integration) may also take an evolutionary approach.

The positions are intended to build on Liverpool's strengths in genomics and benefit from outstanding genomic, proteomic and metabolomic facilities. They will help us to reshape our new institutes within the Faculty of Health and Life Sciences.

Closing date is 19th January

<https://www.liverpool.ac.uk/integrative-biology/-research/genomics/> <https://www.liverpool.ac.uk/integrative-biology/work-with-us/> – Steve Paterson Professor of Genetics Centre for Genomic Research, Institute of Integrative Biology University of Liverpool, Liverpool, L69 7ZB, UK Tel +44 151 795 4521, Mob +44 797 024 7668 s.paterson@liverpool.ac.uk <http://www.liv.ac.uk/genomic-research/> Twitter: @scottishwormboy

PA Lesley Parsons, parsonsl@liverpool.ac.uk, +44 151 795 4509

"Paterson, Steve" <S.Paterson@liverpool.ac.uk>

ULiverpool Evolutionary EcolGenomics

Lecturer/Senior Lecturer/Reader/Professor in Evolutionary and Ecological Genomics Functional and Comparative Genomics Grade 8/9/10: Salary 41,526 - 79,415 Hours of Work: Full Time Interview Date: 10 & 11 March 2020 Tenure: Permanent

You will lead a research programme in the area of Evolutionary or Ecological Genomics. The University of Liverpool is one of the leading centres in the UK for evolution and ecology, with a vibrant group of researchers working on a wide range of systems. You will have a PhD in a relevant discipline, a track of high quality publications and evidence of ability to attract grant funding. This post is open to candidates who are ready to start their first lab, those on an upward career trajectory, or those with an established reputation.

Closing date: 19 January 2020

Please contact Professor Steve Paterson s.paterson@liverpool.ac.uk 0151 795 4521 for all enquiries.

Best wishes,

Bernie Shacklady

Administrator IIB Staffing Administration Institute of Integrative Biology, University of Liverpool.

Biosciences Building, Liverpool, L69 7ZB T: 0151 795 4410 E: bking@liverpool.ac.uk W: <http://www.liverpool.ac.uk/integrative-biology> "Shacklady, Bernadette" <B.King@liverpool.ac.uk>

ULouisiana ComparativePhysiologist

University of Louisiana at Lafayette Assistant Professor in Vertebrate Physiology Link to ad: <https://louisiana.csod.com/ats/careersite/-JobDetails.aspx?site=1&id=980&source=aaas> The Department of Biology (<http://biology.louisiana.edu>) at the University of Louisiana at Lafayette seeks to fill a tenure-track position at the Assistant Professor level. We are especially interested in an outstanding scientist who studies comparative, cellular, integrative, or other aspects of physiology in vertebrates. We encourage applications from individuals who are committed to advancing our tradition of inclusion.

Minimum qualifications are a doctorate in a relevant field, a significant publication record, successful grantsmanship, and postdoctoral experience. Successful applicants will be expected to establish a vigorous and externally funded research program, to teach physiology courses with diverse undergraduate and graduate students, and to participate in our Ph.D. program in Environmental and Evolutionary Biology.

Apply online through the University's application portal. A cover letter, curriculum vitae, statement of research interests, statement of teaching interests, and a diversity statement that addresses inclusive pedagogy and how the candidate's cultural, experiential, or academic background contributes to building an equitable and diverse scholarly environment. These materials should be uploaded as a single pdf file. To ensure full consideration, applications should be received by January 2, 2020. Short-listed candidates will be requested to submit names and addresses of at least three references through the portal. Inquiries should be directed to Dr. Brad Moon, Chair, Physiology Search Committee (Brad.Moon@louisiana.edu).

The University of Louisiana at Lafayette is a public research university with High Research Activity and accreditation from the Southern Association of Colleges and Schools Commission on Colleges. With an enrollment of over 18,000 students and more than 800 full-time faculty members. UL Lafayette is the largest of nine universities in the University of Louisiana System. The University offers degree programs in 55 undergraduate disciplines, 15 post-bachelor certificates, 7 graduate certificates, the master's degree in 28 disciplines, and doctorates in 10 disciplines. UL Lafayette was ranked

in the top 20% for total R&D expenditures in the biological sciences in the United States by the National Science Foundation (2015 Herd Data Report). In 2019, for the second year in a row, UL Lafayette earned the Higher Education Excellence in Diversity Award for our contributions and efforts in advancing diversity and inclusion. The Brookings Institution recently ranked UL Lafayette 9th for promoting social mobility among four-year public universities in the United States. More information about UL Lafayette is available on the University's webpage at <http://louisiana.edu>. The UL Lafayette Department of Biology is one of the largest biology programs on the Gulf Coast, with about 30 faculty members, 70 graduate students, and more than 900 undergraduate students. Support for research includes a mouse vivarium, aquatics labs, departmental vehicles, greenhouses, DNA sequencers and other shared instrumentation, the Ecology Center, Microscopy Center, and New Iberia Research Center (a primate facility), and Louisiana Universities Marine Consortium (LUMCON) marine lab. Opportunities for collaboration are available within the department, and with personnel at university affiliated centers and two federal research centers (the USGS Wetland and Aquatic Research Center and the NOAA Estuarine Habitats and Coastal Fisheries Center) located in the University's Research Park.

The University of Louisiana at Lafayette is an EEO/AA employer and is dedicated to the goal of building a diverse faculty committed to teaching and working in a multicultural environment. Women, minorities, and individuals with disabilities are strongly encouraged to apply.

– Nicholas J. Kooyers, PhD. Assistant Professor University of Louisiana, Lafayette V.L. Wharton Hall 506 Lafayette, LA 70503 www.plantadaptation.com Nic Kooyers <nkooyers@gmail.com>

UMaine Orono 2 EcoBioinformaticsGenetics

Faculty Position in Ecological Bioinformatics

Position: Tenure-track Assistant Professor of Ecological Bioinformatics in the School of Biology and Ecology (SBE) at the University of Maine, Orono. Anticipated start date of September 2020, with an initial appointment of 75% research and 25% teaching.

Description: The School of Biology and Ecology seeks a bioinformatician applying computational methods to

metagenomic and genomic datasets to elucidate the structure and function of biodiversity or underpinnings of ecologically-relevant functional trait variation. The successful candidate will be one of four hires associated with a new statewide NSF EPSCoR program on eDNA inference in freshwater and marine coastal systems and the position will be joint with the new Maine Center for Genetics in the Environment at the University of Maine. We seek candidates who can innovate and apply novel biostatistical and statistical genetics approaches to large and complex genetic datasets to address fundamental and applied ecological questions, with an emphasis on aquatic systems, among others. Successful candidates must be able to work across scales, study systems, and disciplines, in a team-science framework.

Responsibilities: The successful candidate will develop a nationally recognized, and externally funded, research program in ecological bioinformatics, while contributing to the research and broader missions of the Maine-eDNA EPSCoR program (<https://umaine.edu/edna/>) and the Maine Center for Genetics in the Environment. Initial teaching responsibilities (spread over 2 years) will include an upper division course in biologically and ecologically themed statistics or informatics, and contributions to graduate seminar courses in eDNA science and team-science for coastal systems. The candidate is also expected to advise and mentor graduate and undergraduate students in research dissertations and capstones, a Professional Science Masters in Bioinformatics program, and/or new MS program in Data Science and Engineering.

Required Qualifications: 1) PhD in a relevant area of biology or informatics by the official start date of the hire. 2) Proven track record of published, peer-reviewed, bioinformatics research involving ecologically oriented genetic datasets (e.g., metabarcoding or metagenomics datasets of biodiversity, ecological functional traits).

Desired Qualifications: 1) Postdoctoral or similar postgraduate experience. 2) Research experience involving aquatic/marine systems or taxa. 3) Evidence of potential for team-science approaches. 4) Experience of potential for effective teaching or mentoring of students. 5) Evidence of potential for research funding success.

Application Review: Begins January 31, 2020 For application instructions and information on the university please see the full job posting: <https://umaine.hiretouch.com/job-details?jobID'245&job=-assistant-professor-of-ecological-bioinformatics> For questions about the search, please contact search committee chair Dr. Michael Kinnison at mkinnison@maine.edu or 207-581-2575.

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.

Dr. Michael T. Kinnison UMaine System Trustee Professor Professor of Evolutionary Applications School of Biology and Ecology University of Maine Orono, ME 04469

Phone: 207-581-2575 Fax: 207-581-2537

< http://goog_408427343 > <https://umaine.edu/evoapplab/> <https://umaine.edu/edna/> —

Faculty Position in Aquatic Ecosystem Genetics

Position: Tenure-track Assistant Professor of Aquatic Ecosystem Genetics in the School of Biology and Ecology (SBE) at the University of Maine, Orono. Anticipated start date of September 2020, with an initial appointment of 75% research and 25% teaching.

Description: The School of Biology and Ecology seeks a geneticist or molecular ecologist who studies the structure and function of biodiversity in aquatic ecosystems with modern genetic tools, including environmental DNA (eDNA) metagenomics or metabarcoding, landscape genomics, and field-based transcriptomics. The successful candidate will be one of four hires associated with a new statewide NSF EPSCoR program on eDNA inference in freshwater and marine coastal systems and the position will be joint with the new Maine Center for Genetics in the Environment at the University of Maine. We seek candidates who can innovate and apply field and

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UMichigan HumanGeneticVariation

Job Summary

The University of Michigan's School of Public Health is searching for a full-time Research Area Specialist Intermediate or Senior to support the highly interactive Genes for Good research group. Genes for Good

is involved in cutting edge genetics research, studying genetic variation in humans, with a focus on understanding how genetic variation contributes to the risk of complex behaviors and traits. This is an opportunity to work in a challenging and rewarding research area that is at the cutting edge of using new online resources for participant engagement.

You will contribute to the design and analysis of a new generation of genetic and health studies that use online instruments and social media to engage large numbers of participants. You will contribute to the design of survey instruments, data collection protocols, user interfaces and communication and participant engagement strategies. In addition to many opportunities to participate in research project coordination and design, interested candidates will also be able to develop data analysis skills and independent decision-making skills.

Responsibilities

- Lead the design and evaluation of instruments for data collection to ensure participants are engaged in the study and useful health information is collected in a streamlined fashion. This will include the design of surveys and other instruments, modification of procedures and integration of new findings to improve data gathering and analysis.
- Engage with faculty and other team members to monitor the integrity of data collection and the accurate use of protocols and procedures. Develop process improvements to improve quality of study data and participant experiences.
- Participate in the reporting of study results by completing data analysis activities, writing technical reports for funders, and articles for publication.
- Collaborate and contribute to the development of engaging, informative interfaces and answer participant questions about the study.
- Independently draft Institutional Review Board and other documents required for regulatory compliance.
- Coordinate community events to enhance participant interest.
- For candidates with quantitative experience and interest in data analysis, there will be the opportunity to contribute analysis, visualization and interpretation of research data.

Required Qualifications

Research Area Specialist Intermediate

- Have a Master's degree in a health care or research related field. Candidates with degrees in Epidemiology, Biostatistics, Bioinformatics, Health Behavior and

Health Education, or Human Genetics are expected to be highly qualified.

- Experience in genetic studies and a solid understanding of human genetic concepts.
- 4 to 5 years of prior research program coordination experience, particularly where it involves planning of interactions with research subjects and exceptional attention to detail are necessary.

Research Area Specialist Senior

- Have a Doctoral degree in a health care or research related field. Candidates with degrees in Epidemiology, Biostatistics, Bioinformatics, Health Behavior and Health Education, or Human Genetics are expected to be highly qualified.
- Experience in genetic studies and a solid understanding of human genetic concepts.
- 4 to 6 years of prior research program coordination experience, particularly where it involves planning of interactions with research subjects and exceptional attention to detail are necessary.

Desired Qualifications

- Experience performing statistical analyses using R and/or Python, particularly with genetic data and/or large disease registry or health related databases is not required, but highly desirable.
- Familiarity with Linux command-line tools is not required, but highly desirable.
- Excellent written, visual and verbal communication skills.
- Must be highly sensitive to confidential data and associated regulations and have an understanding of compliance issues with regards to human subject research.
- The candidate should have the ability to assess competing priorities and manage workflow.
- Candidate must be able to establish and maintain good working relationships with study personnel and coordinate efforts with a diverse group of people.

How to Apply

Please go to https://careers.umich.edu/job_detail/-181512/research_area_specialist_sr to apply. A cover letter that addresses your specific interest in the position and outlines skills and experience that directly relate to this position is required for consideration.

Christine Dobski <cdobski@umich.edu>

UMinnesota DeptHead

The University of Minnesota Department of Ecology, Evolution and Behavior (EEB) seeks a bold and collaborative leader for the role of Head, with a tenured appointment at the rank of Full Professor. We welcome applications from visionary candidates with a record of excellence in research and scholarship; undergraduate and graduate education/mentoring; academic leadership/administration (including financial and personnel); and obtaining funding and resources. The Department values diversity of thought, experiences, backgrounds and perspectives, and we encourage women and members of underrepresented groups to apply.

The selected individual will lead a highly-ranked department housing an active and diverse graduate program and 41 core faculty (including 4 National Academy of Sciences members). With strengths in both theoretical and empirical research, EEB connects foundational investigations to broader applications. We value democratic decision-making and an inclusive department climate that encourages all to strive for excellence in research, teaching, mentoring, and service. For more information about us, please visit: <https://cbs.umn.edu/academics/departments/eeb>. *How to apply:*

Submit (1) a cover letter that expresses the candidate's leadership philosophy, research interests, and educational/mentorship experience; (2) CV; (3) a representative research publication; and (4) names and contact information for three references. Submit on our career website here < <https://hr.myu.umn.edu/jobs/ext/334423> >. Please send all questions via email to: EEBDHSearch@umn.edu.

Susan D Jones, DVM PhD Distinguished McKnight University Professor Program in the History of Science and Technology Dept of Ecology, Evolution and Behavior University of Minnesota

mail address: 140 Gortner Lab 1479 Gortner Ave. Saint Paul, MN 55108-6097 USA

phone: (001) 612-624-9636 or 612-625-5700 (EEB)
phone: (001) 612-624-7069 (HST) fax: (001) 612-624-6777

<https://cbs.umn.edu/contacts/susan-d-jones> <https://www.hstm.umn.edu/faculty/susan-d-jones> https://www.researchgate.net/profile/Susan_Jones40
"jone0996@umn.edu" <jone0996@umn.edu>

UMississippi ResAssoc EvolutionMicrobialSymbiosis

Dear All,

I'm looking to hire a Research Associate for my group. Kindly forward to suitable candidates or apply yourself if you think you're a fit. Sincere apologies if you receive(d) this multiple times via cross-postings'K.

Best wishes, Erik Hom erik@olemiss.edu

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The Hom Lab at the University of Mississippi is seeking a dedicated, full-time Research Associate (RA) to assist with research and publications, the supervision and support of students, and overall lab management. The RA will primarily lead a NSF CAREER-funded project on experimentally co-evolving model fungal-algal mutualisms, but will also be given opportunities to be involved in several projects in our eclectic research portfolio (<http://darwinsdaemon.com/research.php>).

The successful candidate must be self-motivated and a self-starter, growth-minded, highly disciplined and organized, able to effectively multitask, and have an attestable record of productivity and working well with others. The candidate should have demonstrated experience working with microbes (fungi and algae are a plus) and be enthusiastic about learning/developing new techniques, approaches, and research areas. Experience in molecular genetics, next-gen sequencing/bioinformatics, and/or 3D-printing/device-tinkering are pluses. We envision strong candidates having a Ph.D. in biology (or related field) but welcome applications from candidates with a B.A./B.S./M.S. degree who have a substantial laboratory/research background. The expected commitment is for at least two years, with an initial one-year term with review, and the potential to renew for up to five years depending on annual performance.

Our lab is interested in understanding how biotic and abiotic factors dovetail to facilitate the formation, persistence, and evolution of species interactions, notably those that are symbiotic. We are particularly fond of studying associations involving fungi, algae, and cyanobacteria, and take a two-pronged approach towards understanding how microbes interact to form stable, functioning communities. In one approach, we create new ecosystems of interacting microbes (synthetic ecology) to test our predictive understanding of

basic design principles in microbial ecology. In a complementary approach, we focus on dissecting, manipulating, and observing reduced microbial communities (polycultures) isolated from nature to infer fundamental rules. Our lab is passionate about STEM education and outreach to individuals and communities in underserved/disadvantaged contexts, while pushing forward an innovative and world-class research program.

The University of Mississippi is located in Oxford, MS, an idyllic and growing college town about 1 hr south of Memphis, TN. In addition to SEC sports, a famous tailgating culture at “The Grove,” and a rich Southern culinary scene, Oxford is home to a vibrant music, arts, and literary community with strong historic ties to William Faulkner and The Blues. Ours is a very livable city with a small town feel for those who value work-life balance, community, and proximity to the countryside.

To formally apply, submit application materials here: <https://is.gd/HomRA2020>. Candidates should be prepared to upload: (1) a cover letter explaining specific interest in and fit for the position, (2) a detailed CV, (3) names and contact information for at least 3 references, and (4) optional files to support their application (e.g., publication reprints). Compensation will depend on experience and will include health and retirement benefits. For informal questions/inquiries only, contact Erik Hom at: HomRA2020@gmail.com

Review of applications will begin immediately and continue until the position is filled. We seek to fill this position as soon as possible in early 2020 but are willing wait for the right candidate. We warmly invite women and others from diverse, non-majority backgrounds to apply. We believe different perspectives are critical in our quest for creative excellence.

The University of Mississippi is an EOE/AA/Minorities/Females/Vet/Disability/Sexual Orientation/Gender Identity/Title VI/Title VII/Title IX/ADA/ADEA employer.

’X Erik F. Y. Hom Assistant Professor | Department of Biology Member | Center for Biodiversity & Conservation Research (<http://cbr.olemiss.edu>) Director, ARISE@UM (arise.olemiss.edu) Treasurer, International Symbiosis Society (iss-symbiosis.org) University of Mississippi, University MS 38677-1848, USA <http://darwinsdaemon.com> “erik@olemiss.edu” <erik@olemiss.edu>

UOklahoma LabManger

Title of Position: Laboratory Manager

Earliest start date: Open, first interviews expected by Feb 1st. Salary: ~65K plus fringe.

Position requires a Masters or higher degree (PhD preferred) in a biological science related field, with at least five years of experience in genomics. Strong organization skills and the ability to manage a genomics wet-lab is a must. Duties include managing a multi-PI research group that is active in the use of genomic technologies, including genome reconstruction, ancient biomolecules and microbiome research (see LMAMR.ORG).

The Lab Manager is responsible for overseeing the day-to-day functioning of the lab spaces, implementing safety protocols, maintaining active records of projects, leading lab meetings, as well as a point person for lab training of graduate and undergraduate students, visiting scholars, and post-docs for a multi-PI research group that is active in the use of genomic technologies, including ancient DNA, genome reconstruction, and microbiome research (see LMAMR.org). The Lab Manager may serve as the point person for PI led projects to which they have been assigned, with publication attribution proportionate to the level of contribution. Other duties relevant to lab management may be assigned, such as trouble shooting protocols, lab calendar management, and coordination with staff, students, and faculty. Strong communication skills and the ability to manage a genomics wet-lab are a must.

Complete the application at <https://jobs.ou.edu/> with Cover Letter and complete CV (with references) Job Number 194256

Direct Link: <https://ou.taleo.net/careersection/-1/jobdetail.ftl?job=194256&tz=GMT-06%3A00&tzname=America%2FChicago> For additional questions, contact Dr. Cecil M. Lewis, Jr. Email: cmlewis@ou.edu With subject line: ATTN - Lab Manager Search

“Lewis, Cecil M. Jr.” <cmlewis@ou.edu>

UOslo ProjectManager PlantId

Job Oslo: Project manager EU project Plant.ID on molecular identification of plants (www.plantid.uio.no)

About the position There is a vacant temporary position as Project Manager/Research Administrator at the Natural History Museum. The position is available from 01.05.2020 for 16 months. The position will be part the Plant Evolution and DNA Metabarcoding (PET) group at the Natural History Museum (NHM), a leading research group of 20 people with backgrounds in systematic biology, phylogenetics, bioinformatics, macroevolution, and modelling. The PET group addresses cutting-edge research questions in plant speciation, phylogenomics, and biogeography using genomic and DNA metabarcoding data from modern and ancient samples, and contributes to the development of metabarcoding as a next-generation biodiversity assessment tool for society. For more information see <http://www.nhm.uio.no/english/research/groups/pet/>

Work tasks The employee will be appointed as Senior Advisor (seniorrådgiver) with responsibility for the practical implementation and management of H2020 MSCA-ITN-ETN project Plant.ID on molecular identification of plants (www.plantid.uio.no), as well as research administrative support to other PET external research projects. Plant.ID is training network involving 15 PhD students at 9 European institutes with 18 partner organisations. Plant.ID tasks will include logistics and coordination of network-wide events such as supervisory board meeting, courses, workshops, project reviews, reporting of deliverables and milestones to the EU project officer in Brussels, facilitate travel and secondments, maintenance of the project webpages, and profiling in social media. The employee will be part of the PET group and report to the project leader and project manager.

Required qualifications - Minimum MSc degree in biology. PhD in biology beneficial. - Someone with relevant organizational experience. This can include research and project administration, organization of meetings, conferences, courses, teaching. - Expertise in biology, preferably biosystematics, phylogenetics and DNA barcoding. - Proven ability in scientific writing and reporting in English. - A true team-player, with good ability both to work independently and in collaborative teams. - Someone who keep deadlines, is organized

and manages tasks carefully. - Willingness to travel for meetings, conferences, workshops and courses. - Must be fluent in English.

We offer - salary NOK 532 300 - 583 900 per annum depending on qualifications (position code 1364) - an inspiring and friendly working environment - membership in the Norwegian Public Service Pension Fund - a position in an inclusive work life (IA) institution - attractive welfare benefits

The application must include: - application letter, including 1) your interest in this position, 2) a review of relevant work experience and interests, and 3) a description of how this position will fit you and enhance your career development goals. - CV (summarizing education, positions and academic work - scientific publications) - copies of educational certificates, transcript of records and max 2 letters of recommendation. - names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number).

The application with attachments must be delivered in our recruiting system. Interviews with the best qualified candidates will be arranged.

Formal regulations In accordance with the University of Oslo's equal opportunities policy, we invite applications from all interested individuals regardless of gender or ethnicity. The University of Oslo has an agreement regarding acquisition of rights to work results for all employees, with the aim to secure rights to research results, etc. According to the Freedom of Information Act (offentlighetsloven) § 25 section 2, information concerning the applicant may be made public even though the applicant has requested not to be shown on the list of applicants.

Contact information Professor Hugo de Boer, hugo.deboer@nhm.uio.no, +47 98126030 Dr. Brecht Verstraete, brecht.verstraete@nhm.uio.no, +47 90221301 For questions about the recruitment system, please contact HR-Advisor Thomas Brana, thomas.brana@nhm.uio.no, +47 22856374

Application deadline 08.01.2020 <https://www.jobbnorge.no/en/available-jobs/job/178423/-project-manager-research-administrator> Hugo de Boer

Natural History Museum University of Oslo P.O. Box 1172 Blindern 0318 Oslo, Norway Phone: +47 98126030
Plant.ID MSCA-ITN project leader Leader of ForBio - Research School in Biosystematics Plant Evolution and DNA Metabarcoding group

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VU Amsterdam Molecular Evolution

ASSISTANT PROFESSOR IN MOLECULAR EVOLUTION

The Department of Ecological Science at the Vrije Universiteit Amsterdam invites applications for a tenure-track position in Molecular Evolution. We are looking for an outstanding evolutionary biologist, who is an enthusiastic teacher and investigates the molecular mechanisms that underlie evolutionary change. We seek a candidate at the Assistant Professor level, but in exceptional cases candidates at the Associate Professor level will also be considered.

Potential areas of expertise might include, but are not limited to: functional genetics, molecular evolution, physiological genomics, transcriptomics, and ecological genomics. Our goal is to hire an outstanding individual who complements the existing strengths in the department and has promise for intellectual growth.

YOUR DUTIES - develop a vigorous, extramurally funded research program - teach bachelor and master level courses in evolution, evolutionary genomics, and related subjects. - provide high quality training and supervision to PhD-students and postdocs - engage in professional development activities related to teaching and academic leadership

REQUIREMENTS - Ph.D. in evolutionary biology or related field with at least 3 years of postdoctoral experience, and demonstrable skills in molecular biology techniques - strong track record of research and successful acquisition of external funding - demonstrated skills in activating teaching methods in BSc and MSc level courses - excellent communication skills (written and spoken English) and motivation to work in a team - proficiency in Dutch is not required, but the successful candidate would be expected to develop at least a passive proficiency in the first three years after appointment

ABOUT THE DEPARTMENT The Department of Ecological Science (www.amsterdamecology.nl) offers a stimulating international research environment with world-class academic reputation, and excellent state-of-the-art facilities. We have a strong commitment to bachelor and master level teaching. Research in the department

covers a wide range of fundamental and applied research topics, including stress ecology, species interactions and evolutionary adaptation, plant-soil-microbe interactions, climate change and ecosystem functioning. Our strength lies in the ability to integrate studies of adaptive changes across the entire range of biological organizational levels.

WHAT ARE WE OFFERING? We offer a tenure track position, initially for the duration of 6 years. After 1 and 5 years the performance will be evaluated in terms of publication record, acquisition success, teaching and academic leadership. After a successful evaluation permanent employment will be granted and a path will be outlined for future academic development.

On full-time basis the remuneration amounts to a minimum gross monthly salary of €3,637 (scale 11) and a maximum €5,656 (scale 12), depending on your education and experience. The position is full time or 0.8 FTE.

Additionally, Vrije Universiteit Amsterdam offers excellent fringe benefits and various schemes and regulations to promote a good work/life balance, such as: - a maximum of 41 days of annual leave based on full-time employment - 8% holiday allowance and 8.3% end-of-year bonus - Possibility to save holiday hours, for sabbatical leave - good paid parental leave scheme - child daycare facilities available on campus

APPLICATION To apply, submit a cover letter, CV, research and teaching statement, and names and contact information for three references by January 5, 2020 via <https://workingat.vu.nl/ad/assistant-professor-in-molecular-evolution/xzedob>. The job interviews are planned for 30 January 2020 and 31 January 2020, please take them into account when applying for the position.

If you have any questions regarding this vacancy, please contact Head of Department prof. dr. J. Ellers by email at j.ellers@vu.nl

“Ellers, J.” <j.ellers@vu.nl>

WageningenU EvolutionPlantDefenses

Full Professor Phytopathology

Wageningen University & Research is looking for a full professor (0.8 - 1.0 fte) to lead the Laboratory of Phytopathology as part of the Plant Sciences Group of our University, one of the leading universities on food, health

and environment worldwide.

The Laboratory of Phytopathology studies the relationships of fungi, bacteria and oomycetes with plants. The current focus is on the underlying processes involved in these relationships, with an emphasis on microbial effectors and their matching plant immune receptors, as well as on genetic diversity and comparative microbial genomics. A key objective for the Laboratory is to generate knowledge about infection mechanisms of pathogens and defense processes in plants that can be applied in designing disease control strategies in crops worldwide. We seek a new professor whose expertise is complementary to and synergistic with the Laboratory's existing research; this may include research focusing on ecological, genetic, physiological or molecular processes.

The Laboratory of Phytopathology is part of the Plant Sciences Group, one of the five science groups at Wageningen University & Research, and has state-of-the-art tools and facilities. The Plant Sciences Group comprises 18 academic chair groups and 7 applied research groups and is affiliated with the Graduate Schools Experimental Plant Sciences (EPS) and Production Ecology and Resource Conservation (PE&RC).

We are looking for

We seek the following qualities:

* You are a scholar with a PhD degree in plant sciences and a proven scientific track record

of recognized international quality in the field of phytopathology

* You have an inspiring, long-term vision on the development of this field

* You have great interpersonal and networking skills and a broad international network

* As an inspiring teacher and supervisor for students of diverse backgrounds, with the

ability to develop courses at Bachelor, Master, and PhD level, you are interested to

innovate teaching methods

* You are able to lead professionals in this dynamic multidisciplinary team in a collegial,

unifying and visionary leadership style characterized by a passion to develop people, to build teams, and to create synergy

We offer

You will work for a dynamic and inspiring international organization with many interdisciplinary projects all over the world. A strong commitment to teaching and fundamental research, combined with innovative applied

research, creates a rich learning environment. Our students 'V the innovators of tomorrow 'V also benefit from first-class research and educational facilities.

The scientific quality of Wageningen University is affirmed by the prominent position we occupy in international rankings and citation indexes. Dutch students voted Wageningen University & Research as the best university in the Netherlands for the past fifteen years in a row.

We offer you a challenging position as a full professor and Chair of the Laboratory of Phytopathology. Besides a competitive salary, we offer a number of additional benefits, such

as an end-of-year extra month's salary, a holiday allowance and a pension plan with the Dutch pension fund for government and education. Applicants from abroad moving to the Netherlands may qualify for a special tax relief, by which 30% of their salary is exempt from tax for the first five years.

More information

Further information about the position can be obtained from Professor Ken Giller, Chair of the Appointment Advisory Committee via mail: ken.giller@wur.nl, or phone:

+31 317 485 818. Do you want to hear more detailed information on the profile and the Chair group, do not hesitate to contact denise.magendans@wur.nl

Application

You are invited to send your complete application via the respond-button on top of this page. Please include an application letter with curriculum vitae, a separate list of publications and a 1000-word (max) statement of research and education interests and intended direction. The deadline for applications is 31 January.

The Appointment Advisory Committee will interview selected candidates for this position on 10 March 2020. The Committee will thereafter invite short-listed candidates for a second interview and a public trial lecture in April 2020.

Coming from abroad

Wageningen is a centre for research and entrepreneurship. The themes we deal with are relevant to everyone around the world and Wageningen, therefore, has a large international community and a lot to offer to international employees. It is a historic university town of about 36,000 residents in the central Netherlands. The academic community hails from more than 100 countries, giving the town a lively, international feel. Our highly qualified team of advisors on Dutch immigration proce-

dures will help you with the visa application procedures for yourself and,

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WashingtonStateU EvolutionInsectPhysiology

Dear all, we are so excited to be able to announce our new position! Please share widely! Have anyone who is interested contact Doug Walsh! This is the official announcement and links to the wsu jobs website below. We could not be more excited for this opportunity!

The Department of Entomology at Washington State University is seeking an Assistant Professor to develop an innovative, nationally and internationally recognized, and externally funded research and teaching program in insect physiology. This 12-month, tenured or tenure-track full-time faculty position begins August 17, 2020, or as negotiated. Responsibilities include developing a research program in insect physiology that addresses basic science, crop production challenges, ecological/environmental issues and arthropod response to exposure to plant derived and synthetic xenobiotics. Expectations also include conducting research relevant to Washington??s diverse agricultural industries. Applicants with a wide range of expertise will be considered, including sensory physiology, pheromone biology, insect nutrition/digestive physiology, ecological/environmental physiology, insect pathology, or diapause/overwintering biology. Collaboration is expected within and outside the department and institution, and applicants should demonstrate strong potential for collaboration with other existing programs (e.g., toxicology, metabolomics, integrated pest management, apiculture, insect-microbe and insect-plant interactions).

Required: Earned Ph.D. in Entomology or related discipline at date of hire with demonstrated expertise in insect physiology and research. Screening of application materials begins January 2, 2020, and will continue until the position is filled. Applications must include: letter of application addressing the required and preferred qualifications, areas of expertise, and research interests; a current curriculum vitae; statement of vision and goals

for the position that describes how you would approach the position; electronic copies of graduate and undergraduate academic transcripts; and names and contact information for four professional references. Letters of recommendation will be requested for the finalists. Please contact Doug Walsh, Search Committee Chair, dwalsh@wsu.edu 509-786-9287, for questions about this position. All qualified individuals are encouraged to apply.

For a complete position description see the Notice of Vacancy with all required and preferred qualifications visit entomology.wsu.edu/directory/current-vacancies/, and to apply visit www.wsujobs.com and search #: 130312 (www.wsujobs.com/postings/48726). For additional information on Washington State University, the College of Agricultural Human and Natural Resource Sciences or the Department of Entomology, visit cahnrs.wsu.edu, and entomology.wsu.edu. EEO/AA/ADA.

Laura Lavine Professor & Chair, Department of Entomology & Associate Director of the Agricultural Research Center

College of Agricultural, Human & Natural Resource Sciences |Office of Research Washington State University PO BOX 646240|Pullman WA 99164-6240 Phone: 509-335-4563 |<http://cahnrs.wsu.edu/research/> “Lavine, Laura Sue” <lavine@wsu.edu>

WellcomeSangerInst 2 Bioinformatics

Post 1:

The Opportunity:

We are seeking a talented Bioinformatician or genomics data scientist to contribute to the development of methods and software and to deliver high-quality analysis and annotation for genomes in the Moore Foundation Aquatic Symbiosis project. Sequencing technologies are constantly evolving in terms of the type and volume of the sequence data they produce. The recent progress in long-read sequencing technologies means that we are now able to efficiently deliver high quality genome assemblies for species that did not previously have such a resource. We will produce thousands of genome assemblies for symbiotic organisms, and analyse these to understand their biology. There are opportunities and challenges in the robust, integrated annotation and analysis of these assemblies, and particularly in the co-analysis of sym-

biotic partners. One of the most challenging aspects of this role will be to produce high-quality scientific results on a large scale while adapting to rapid developments in sequencing technology and software.

About the Programme:

The Tree of Life Programme at the Wellcome Sanger Institute is dedicated to the generation and analysis of high quality genome sequences from across eukaryotic biodiversity. The Tree of Life team is initiating a new, three-year project on the Genomics of Symbiosis in Aquatic Systems, funded by the Gordon and Betty Moore Foundation. We will use advanced genomics toolkits to describe and decipher the biology of thousands of species that live in intimate association. The project will collaborate internationally to deliver exciting research outcomes and further understanding of the importance of symbiosis in generating diversity and maintaining function in aquatic ecosystems. To deliver this new project we are recruiting a team of molecular biologists, computing scientists and project management support.

About you:

This role would suit somebody with some previous experience with genome bioinformatics or other large scale scientific data analysis, or a newly qualified graduate student with data science skills interested in DNA sequence data. While desirable, previous experience with DNA sequencing data is not strictly necessary for the position. We have a strong publication record and culture of producing open data resources and open source software development. This role requires an investigative and solution-oriented mindset and excellent communication skills to work effectively within large national and international consortia.

For further information or questions about this post please contact Mark Blaxter (mb35@sanger.ac.uk)

Essential Skills

- Degree in a scientific discipline related to bioinformatics, or equivalent experience
- Experience of computational scientific data analysis, particularly in the area of genome annotation and analysis
- Expert knowledge of the unix computing environment
- Proficiency in one or more scripting languages, preferably Python and Perl
- Excellent critical and problem-solving skills
- Attention to detail and the ability to work to meet timelines
- Ability to quickly adapt to new problems and ideas
- A high level of communication skills to be able to elicit complex requirements from, and convey complex information to, groups with different levels of technical knowledge
- Experience of managing and motivating junior staff

Ideal Skills

- Knowledge of new sequencing data and technologies
- Experience in genome annotation and analysis
- Experience with the git version control system
- Experience with running software on a compute farm, cluster, or cloud environment
- Previous experience with managing large volumes of data
- Experience with a compiled programming language such as C or C++
- Experience with workflow markup languages
- Experience with database management in MySQL or similar
- Web development experience

Other information

Closing Date: 19th January 2020

Please Apply on our website: <https://jobs.sanger.ac.uk/-vacancy/senior-bioinformatician-annotation-408296.html> About Us

The Wellcome Sanger Institute is a world leading genomics research centre. We undertake large-scale research that forms the foundations of knowledge in biology and medicine. Our findings are used to improve health and to understand life on Earth. Find out more at www.sanger.ac.uk follow us on Twitter, Facebook, LinkedIn, YouTube and on our Blog.

Our campus Set across 130 acres, just outside of Cambridge, The Sanger Institute is located on the stunning Wellcome Genome Campus. Home to some of the world's foremost institutes and organisations in genomics and computational biology, committed to delivering life-changing science with the reach, scale, and creativity to solve some of humanity's greatest challenges.

Our benefits:

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WellcomeSangerInst CompStaffScientist PopGenomics

The Lawniczak lab at the Wellcome Sanger Institute near Cambridge, England is seeking a highly motivated researcher with excellent computational and quantitative skills to fill a Computational Senior Staff Scientist position. Our work ranges from single cell RNA sequencing data analysis of tens of thousands of individual

malaria parasites to population genomic studies of tens of thousands of mosquitoes to building, analysing, and using high quality genome assemblies across the entire tree of life. In each of these areas we aim to innovate, developing excellent visual and analytical explorations of data for ourselves and the wider community as well as applying the best available existing tools for the questions at hand (and doing the evaluations to determine which those might be).

The ideal candidate will have a wide-ranging skillset including conceiving of computational approaches that enhance our interpretation of the genomic data we generate, leading analyses and also training others to do so, and writing, publishing, and presenting results. Another primary part of the role is to offer general computational support for the team and the resources we generate, including on-boarding new members, helping to build and maintain a shared code base in collaboration with the core informatics support teams that exist in both the Tree of Life and the Parasites and Microbes departments, keeping our interactive data resource websites up to date and user-friendly, and taking responsibility for team code repositories and data organisation. We value diversity and we welcome applications from anyone regardless of their gender, age, race, sexual orientation, religion, disability, nationality, pregnancy or their requirement for part time or flexible working hours due to childcare or other commitments.

Mara Lawniczak mara@sanger.ac.uk

More details at <https://jobs.sanger.ac.uk/vacancy/-computational-senior-staff-scientist-406537.html> The Wellcome Sanger Institute is operated by Genome Research Limited, a charity registered in England with number 1021457 and a company registered in England with number 2742969, whose registered office is 215 Euston Road, London, NW1 2BE.

mara@sanger.ac.uk

YaleU EvolutionaryDataScientist

The Yale Center for Biodiversity and Global Change is seeking to fill a Staff Scientist position handling species

distribution modelling and supporting geo-database management for our flagship project Map of Life. More details and how to apply here.

The position will be based at Yale University, with close collaborative links to our partners worldwide. The Yale BGC Center connects biodiversity scientists from across campus and hosts a range of speaker and workshop events. It supports research and training around the use of new technologies and data flows for model-based inference and prediction of biodiversity distributions and changes at large spatial and taxonomic scales. Flagship Center projects include Map of Life and associated activities supporting the Half-Earth Map and the development of the GEO BON Species Population Essential Biodiversity Variables. For animal movement data we are partnered with the Icarus Initiative, a space station-based near-global GPS animal movement observation system, and Movebank, which supports the management and integration of movement data. For camera trapping data we are members of the Wildlife Insights initiative. Other Center initiatives include the integration of phylogenetic information with spatial distributions (e.g., VertLife), and the NASA-supported development and application of remote sensing-informed layers for biodiversity modelling (EarthEnv).

Diversity, equity, and inclusion are core values in our group. We aim to promote the success of traditionally underrepresented groups in science because we believe not only in the importance of increasing equity across academia, but also that a diverse team will enable a broader perspective and enhance creativity.

Yale University offers researchers and staff competitive salaries and a generous package of benefits. Yale has a thriving and growing community of young scholars in ecology, evolution and global change science in the EEB Department, the Yale Institute for Biospheric Studies, the Peabody Museum, and the School of Forestry and Environmental Studies. The town is renowned for its classic Ivy League setting, 75 miles north of New York City.

Anna Schürkmann <aschuerkmann@gmail.com>

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“Duckworth, Renee A - (rad3)”
 <rad3@email.arizona.edu>

ASN JasperLoftus-Hills YoungInvestigatorAwards

The Jasper Loftus-Hill Young Investigator’s Award of the American Society of Naturalists honors outstanding promise and accomplishments of young investigators who conduct integrative work in the fields of Ecology, Evolutionary Biology, Behavioral Ecology, and Genetics. Applicants working in any of these fields are encouraged to apply. The award honors outstanding promise and accomplishments of young investigators (3 years post-Ph.D., or in the final year of their Ph.D) who conduct integrative work in ecology, evolution, behavioral ecology, and genetics. The award was established in 1984 to recognize exceptional work by investigators who received their doctorates in the three years preceding the application deadline, or who are in their final year of graduate school. The award commemorates Jasper Loftus-Hills (1946-1974), an Australian biologist of exceptional promise who died tragically during the course of fieldwork three years after receiving his degree. Winners of this award will present a research paper in the Young Investigator’s Symposium at the ASN annual meeting and receive a \$500 prize, a travel allowance of \$700, cost of registration for the meetings, and a supplement of \$500 in case of intercontinental travel. Four awards are made annually. Recipients need not be members of the Society. Please see the ASN announcement for this award < <https://www.amnat.org/-announcements/NomYIAforms.html> > for more details on the application process and how to apply. The award deadline is January 15th, 2020.

Biodiversity JointCall CanadaFrance

Joint call SYNERGY FRB-CESAB / CIEE: Biodiversity in a time of global change

The Canadian Institute of Ecology and Evolution (CIEE < <http://www.ciee-icee.ca/> >) and the Centre for the Synthesis and Analysis of Biodiversity (CESAB < <https://www.fondationbiodiversite.fr/en/about-the-foundation/le-cesab/> >) of the French Foundation for Biodiversity Research (FRB) offer a joint call for working groups that include researchers based primarily in Canada and France, on the topic “Biodiversity in a time of Global Change”.

Global change refers to the widespread impact of humans on the planet, including climate change, pollution, land use change, resource extraction and over-harvesting, invasive species and emergent diseases, and other forms of environmental stress and disturbance. Canada and France have a history of working together on aspects of biodiversity and global change, and this joint call celebrates that partnership.

Two working groups of eight researchers will be funded for two meetings each (the first one in 2020 in Vancouver - Canada; the second one in 2021 in Montpellier - France).

Working groups are expected to examine original key research questions about how global change affects bio-

diversity, using innovative approaches and best practices in synthesis science.

Proposal deadline: 31/01/2019 More information: <https://www.fondationbiodiversite.fr/en/calls/joint-call-frb-cesab-ciee-biodiversity-in-a-time-of-global-changes/> Many thanks,

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'Agence française pour la biodiversité (AFB) : 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>

EECGAward DeadlineDec13

NEW DEADLINE for the 2020 Evolutionary, Ecological, and Conservation Genomics (EECG) Research Awards: Friday, Dec. 13, 2019!

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>

ESEB ConferenceTravelAwards DeadlineJan15

ESEB CONFERENCE TRAVEL AWARDS 2020

The European Society of Evolutionary Biology (ESEB) is pleased to announce the call for applications for conference travel awards 2020.

These stipends are for students and young scientists to attend the Evolution meeting (<https://www.evolutionmeetings.org/>) of ASN/SSB/SSE in

Cleveland, OH, on 19-23 June 2020. The stipend will contribute to covering travel, living expenses, and early bird congress registration fees. Note that the registration fee will be waived by the congress organizers as part of the stipend. The remaining funds will be paid out as a reimbursement after the congress, based on specification of the expenses.

****DEADLINE: 15 March 2020****

Eligibility:

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

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

How to apply:

Send your application by email to the ESEB Travel Bursary Committee, c/o Dr. Martijn Egas (egas@uva.nl).

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

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

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

DEADLINE: 15 March 2020

Members professionally based in the following countries

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

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

group that has been successful in past calls may be penalized if the proposals are mere follow-ups of previous projects.

The applications will be evaluated by the Outreach Initiative Committee:

Josefa González, Chair (ES) Delphine Sicard (FR) Karine Van Doninck (BE) Rhonda R. Snook (SE)

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

ESEB Outreach Initiative Fund

ESEB Outreach Initiative Fund

The European Society for Evolutionary Biology (ESEB) welcomes applications to the ESEB Outreach Initiative Fund for projects that promote evolution-related activities. The goal of this initiative is to improve public knowledge about evolution globally.

Applications for funding will be accepted for educational initiatives that promote evolution, translation of evolutionary material (books, films, and websites) intended for a general audience, public outreach seminars, public exhibitions, etc.

There will be a single call per year with a total budget of 20,000 Euro. A single project can be funded with up to 4,000 Euro, but smaller projects are welcome. We are requesting a report after one year, at which time the project should be completed.

Please use the ESEB application form to submit your proposal and note the word limits given herein. The form can be downloaded at the ESEB website:

Proposals will be accepted until *15th March 2020* and should be submitted by email to the ESEB office (Email: office@eseb.org; Subject: Outreach 2020). Note that we will acknowledge receipt of all applications within a week. If you have not received our confirmation by then, please contact the ESEB office again!

Please note that scientific meetings are not supported by ESEB Outreach Initiative funds. These fund also do not work as a mechanism for continual funding. Once the potential of a project has been demonstrated, this should be used as a basis to convince other funding sources on continuation funds. Hence, submissions by a

Herpetology Teaching Award

The Meritorious Teaching Award in Herpetology (MTAH)

Presented by the Herpetology Education Committee

Sponsored by: American Society of Ichthyologists & Herpetologists (ASIH), The Herpetologists' League (HL), and the Society for the Study of Amphibians & Reptiles (SSAR)

The Herpetology Education Committee (HEC) seeks nominations for the Meritorious Teaching Award in Herpetology to be presented at the 2020 Joint Meeting of Ichthyologists & Herpetologists in Norfolk, Virginia. Nominees must be current members of at least one of the sponsoring societies. Current officers and committee chairs of ASIH, HL, or SSAR, and members of the HEC are not eligible for nomination.

This award recognizes superior teaching and mentoring of students in herpetology. Awardees will be active teachers and mentors, with classroom teaching within the last three years and a substantial history of teaching excellence. The award recipient will receive US \$500, an official letter, and a plaque from the HEC.

Nominees should have a reputation among their peers and students for excellence in herpetological education, including, but not limited to:

1. Demonstrated effective and innovative teaching in the classroom and/or other education settings (e.g., zoological parks, aquaria, museums, field stations, environmental centers).
2. Superior mentoring of students in herpetology, as evidenced by student testimonials, student publications, and placement of students in professional positions in herpetological fields.

The nomination packet (submitted as a single electronic PDF) must include the following documents that are clearly numbered and labeled: 1. NOMINATING LETTER: A nominating letter, from a current member of ASIH, HL, or SSAR, highlighting in detail the nominee's experience and accomplishments (limit 2 single spaced pages) 2. CURRICULUM VITAE: A current CV of the nominee, including teaching experience 3. COURSEWORK TAUGHT: List of relevant coursework taught (including years taught) 4. RECOMMENDATION FROM STUDENTS: Letters of recommendation (limit 2) from former or current students (graduate or undergraduate) addressing the teaching and mentoring skills of the nominee 5. RECOMMENDATION FROM PEERS: Letters of recommendation (limit 2) from professional peers who are qualified to review the merits of the nominee with respect to teaching and mentoring

Incomplete nomination packets (e.g., those that do not include each of the above 5 items) will not be considered.

Nominations must be received by the HEC Chair by 31 March 2020 for consideration. Nominations will remain active for three years. After that, the nominee must wait six years before being eligible again. Send electronic nomination files, including all letters, as a single PDF with the subject line "MTAH2020 nomination" to:

Erin Muths, chair email - muthse@usgs.gov

Brad Shaffer <brad.shaffer@ucla.edu>

MitochondriaGenotypeToPhenotype RoyalSocietyIssue

Royal Society Publishing has recently published a special issue of Philosophical Transactions B entitled Linking the mitochondrial genotype to phenotype: a complex endeavour compiled and edited by Liliana Milani and Fabrizio Ghiselli and the articles can be accessed directly at www.bit.ly/PTB1790 A print version is also available at the special price of £35.00 per issue from publishing@royalsociety.org

Felicity Davie Royal Society Publishing

Felicity.Davie@royalsociety.org

NewPhytologistTansleyMedal DeadlineJan10

Calling all early career scientists: win 2000 and publish in New Phytologist!

The deadline for applying for this year's New Phytologist Tansley Medal is approaching - apply by 10 January!

Full details and online application form here: <https://www.newphytologist.org/grants/tansleymedal> * The New Phytologist Tansley Medal is awarded annually in recognition of an outstanding contribution to plant science. * This is a global competition open to all plant scientists in the early stages of their career. This includes student and post-doctoral researchers with up to five years' experience since gaining their PhD. Career breaks do not count towards this five year period. * Selection is a two-stage process based on a single-author Tansley insight review paper, intended for publication. * All competition papers that are accepted after peer review will be published in New Phytologist and the Tansley Medal winner selected by judges from these final papers.

Find out more about previous winners, and apply now at <https://www.newphytologist.org/grants/tansleymedal> With apologies for cross-posting.

Best wishes, Mike

Dr Mike Whitfield (pronouns: he / him) Development Coordinator, New Phytologist Trust

New Phytologist Trust, Bailrigg House, Lancaster University, Lancaster, LA1 4YE, UK Tel: + 44 1524 592839 newphytologist.org Twitter: @NewPhyt Instagram: @NewPhyt Facebook: fb.com/NewPhytologist

The New Phytologist Trust, registered charity number 1154867

2018 Impact Factor 7.299

Apply for the New Phytologist Tansley Medal! Deadline: 10 January 2020

Events in 2020 Ecological and evolutionary consequences of plant-fungal invasions next generation scientists 2020 | Stomata 2020

"Whitfield, Mike" <m.whitfield@lancaster.ac.uk>

Nominations Due for Prestigious SMBE Faculty Awards

Dear SMBE Members:

SMBE is now calling for nominations to award the Prizes for Early-Career, Mid-Career, Lifetime Research Achievements, and for Service to the SMBE Community. Please consider nominating those of your colleagues you believe deserve to be rewarded for their extraordinary achievements and dedication to the field.

Briefly, the Junior Award for Independent Research is intended for nominees in tenure-track positions at the Assistant Professor level or equivalent; the Mid-Career Award is for the research contributions of faculty nearing promotion to Full Professor or in the early stages as a Full Professor; the Lifetime Contribution Award is for exceptional contributions to the published literature in the field of molecular biology and evolution; and the Community Service Award recognizes outstanding efforts on behalf of the Society and the broader scientific community. Awardees will receive a cash prize and a trip to the upcoming SMBE Annual Meeting in Québec City, Canada (June 28 to July 2, 2020).

Nominations require a nomination letter, which should clearly indicate the award under consideration and also serve as a recommendation letter; a separate one-page summary of the nominee's qualifications for the award; a CV of the nominee; and an additional letter of recommendation. Self-nomination is not allowed. The nominator need not be an SMBE member, but the nominee must be a member of SMBE to be considered for the award.

The materials should be compiled into a single PDF file, and should be emailed to smbe@allenpress.com before 19 January 2020.

For more information on each award and the specific application details please see the links below:

Allan Wilson Junior Award for Independent Research <http://www.smbe.org/-smbe/AWARDS/FacultyAwards/-AllanWilsonJuniorAwardforIndependentResearch.aspx>

Margaret Dayhoff Mid-Career Award <http://www.smbe.org/smbe/AWARDS/FacultyAwards/-MargaretDayhoffMidCareerAward.aspx> Community Service Award <http://www.smbe.org/smbe/AWARDS/-FacultyAwards/CommunityServiceAward.aspx>

Motoo Kimura Lifetime Contribution Award <http://www.smbe.org/smbe/AWARDS/FacultyAwards/-MotooKimuraLifetimeContributionAward.aspx> Best Regards,

Juliette de Meaux SMBE Faculty Awards Committee Chair

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

SouthAfrica VolFieldResAssist SocialMoleRats

SouthAfrica.VolFieldResearchAssistant.SocialMoleRats Cooperative breeding in Damaraland mole-rats (*Fukomys damarensis*).

We are looking for voluntary field research assistants to get involved with our research on the completely subterranean, highly social Damaraland mole-rat (*Fukomys damarensis*) in the Kalahari (South Africa). We are conducting a long-term capture-mark and recapture study, based at the Kalahari Research Centre, to investigate the life-history and social behaviour of Damaraland mole-rats (<http://kalahari-meerkats.com/kmp/research-publications/damaraland-molerats-group/>). Entire groups of mole-rats will be captured and individually marked. Some individuals may be fitted with a collar to measure behavior. Morphological measurements and tissue samples will be obtained before the release of the animals. The field work is physically demanding and weather conditions are challenging (heat during the day, cold during the night). Field work may make trapping during the night necessary. The assistants will mostly be working in teams of two or three but will be embedded in a large research community. This position requires working in a small team in a remote location on free ranging animals. The trapping season will start in March and last for 3 months. Research assistant will require a valid driving license.

Accommodation is provided, and research assistants are paid a monthly allowance to cover their personal costs and food during the 3 months on site.

We will review applications as they arrive and will start interviews in December. Please include a cover letter explaining why you are interested in getting involved in this research project and a CV.

Please apply by email or contact for further information:

Hanna Bensch, Linneaus University, hanna.bensch@lnu.se

Hanna Bensch <hanna.bensch@lnu.se>

SSE Diversity Committee CallForNewMembers

The SSE Diversity Committee (DC) seeks to add two new members starting in 2020. The DC works to create a professional society that is supportive of members from all backgrounds through several main actions: by broadening representation to the SSE Executive Council, by pursuing initiatives that support underrepresented groups, and by creating an inclusive, accessible environment at the Evolution conference.

Applicants should submit a brief (1-2 page) statement of interest outlining their experience with Diversity, Equity, and Inclusion (DEI) service, and the ideas, events, and perspective they plan to contribute during their 3-year term. The DC seeks diverse members who represent different backgrounds and perspectives. Thus, we ask that applicants describe particular elements of their background and/or identity that will contribute uniquely to the composition of the DC. Applicants should also identify their career stage and affiliation, as we welcome participation from members of the community across all stages of their training, and in all career paths.

Applicants must be members of SSE (join or renew your membership here: <http://bit.ly/joinSSE>) and have attended at least one Evolution conference in the past. These items should also be mentioned in the application statement.

Many of the DC's initiatives are created and operated with the DCs of our sister societies, the American Society of Naturalists and the Society for Systematic Biologists. Past or ongoing efforts of the SSE DC include:

- Data collection and analysis regarding the demographic composition of SSE
- Creation of guidelines on best practices for awards procedures
- Events at the Evolution meeting including Story Collider and mixers to build community among LGBTQ+ biologists, biologists with disabilities, biologists of color, biologists at PUIs, and parents
- Improving accessibility at the Evolution conference for scientists with disabilities, scientists of marginalized

genders, and scientists who are nursing/caretaking

More information about the SSE DC and our prior initiatives can be found on our web page: http://bit.ly/SSE_Diversity. Please submit your application by January 20, 2020 to diversity@evolutionsociety.org. Questions may also be directed to this email address.

SSE Communications <communications@evolutionsociety.org>

SSE Graduate Excellence Grants

The Society for the Study of Evolution (SSE) is pleased to announce the 2020 Graduate Research Excellence Grant (GREG) - R.C. Lewontin Award competition. These awards are to assist student members in the early stages of their Ph.D. programs. These grants are part of the Graduate Research Excellence Grants award program. < <http://www.evolutionsociety.org/content/society-awards-and-prizes/graduate-research-excellence-grants.html> > Only Ph.D. students in their first two years of their programs are eligible. Awards will range from \$1,500 - \$2,500 and approximately twenty awards will be made. Proposals are due February 15, 2020. Learn more here < <http://www.evolutionsociety.org/content/society-awards-and-prizes/graduate-research-excellence-grants/rc-lewontin-early-award.html> >

Kati Moore *Communications Manager* *Society for the Study of Evolution* communications@evolutionsociety.org www.evolutionsociety.org communications@evolutionsociety.org

Systematics Research Fund

The Linnean Society (<https://www.linnean.org/>) and the Systematics Association (<http://www.systass.org/>) jointly administer the Systematics Research Fund (SRF) that provides grants annually for small-scale research projects in the field of systematics.

Typical activities supported include contributions to fieldwork expenditure, the purchase of scientific equipment or expertise (e.g. buying time on analytical equipment), specimen preparation (including the cost of temporary technical assistance), and contributions to publication costs. However, please note that it is unable to

fund the cost of article publication charges. Projects of a more general or educational nature will also be considered, provided that they include a strong systematics component. Typical activities not supported include attendance at scientific meetings and contributions to student maintenance or tuition fees. The fund does not provide payments for Bench Fees. Projects already substantially funded by other bodies may be disadvantaged. Applications of all nationalities are welcome but applicants must be a current member of the Systematics Association or Linnean Society of London.

Successful projects are selected by a panel of systematists who represent a wide range of conceptual interests and taxonomic groups. Generally, applications in the range of 500-1000 are preferred, the value of any single award will not exceed 1500.

Deadline: 20 February 2020

More information on SRF on the Systematics Association webpage: <https://systass.org/grants-and-awards/-srf/> Questions about the application procedure can also be sent to the SRF Administrator (srf@systass.org)

Dr. Anne D. Jungblut Grants & Awards Secretary for SRF The Systematics Association

Anne Jungblut <a.jungblut@nhm.ac.uk>

UParis Saclay Internship BirdBehavior

Internship opportunity (5 months) : Daily foraging routines in common garden birds using birdfeeders - is the proverbial «early bird» living in the garden?

UMR 8079 Ecologie, Systématique, Evolution (ESE), Université Paris-Saclay, Bât 362 Orsay in collaboration with CESCO, MNHN

Carmen Bessa-Gomes (UMR 8079 ESE) François Chiron (UMR 8079 ESE) Romain Lorrillière (UMR 7204 CESCO) Nicolas Deguines (UMR 7204 CESCO)

Timing of feeding and daily foraging routines have been the object of research in the past, particularly in the field of optimal foraging. Daily foraging routines will influence energy budgets. Hence, albeit the proverbial advantage of the “early” bird, past research has highlighted that under cold temperatures individuals may delay the beginning of their foraging journey, limiting the metabolic costs of foraging under cold temperatures. Daily routines also depend of intraspecific interactions

and subdominant individuals have been shown to have longer foraging hours in relation to dominant individuals. While an early start can reduce competition, it may increase predation risk, diminishing overall survival. Research on daily foraging routines has often been made in controlled feeding apparatus focusing on target species or functional groups. Hence, the role of interspecific interactions other than predation have received scant attention. Such approaches limit our understanding of the impact of such interactions, particularly competition. We propose to further such understanding by examining the question of daily foraging routines at the community level using bird feeders for garden birds.

Here we propose to examine the question of daily foraging routines at the community level using bird feeders for garden birds. We propose to test the following hypothesis:

“Territorial species favour an early/dusk feeding pattern relatively to species likely to participate in winter foraging flocks”

Other than being present at close proximity to the resource, territorial individuals are likely to benefit from their familiarity with the local environment. We propose that they should reduce the cost of interspecific competition by feeding before/after the presence hours of winter foraging flocks.

We propose to test our hypothesis using the citizen science scheme BirdLab. BirdLab is the first citizen science scheme that couples a serious game and bird observation on a smartphone. It aims at gathering information about foraging social behaviours of birds during winter, using a standardized protocol. Data provided are species abundance and interactions at feeders. The participants set up two identical feeders 1-2 meters apart and filled with sunflower seeds. They can record up to 27 species among the most common and easily identified ones at bird-feeders. A user-friendly app (available for tablet and smartphone on Android and iOS) represents the two feeders, as well as icons of the 27 species. During exactly five minutes, the participant will drag and drop these icons between the feeders to mimic bird movements they see. Hence, timing of bird arrivals, departures and switch between feeders are recorded in real time. Participants can repeat this 5 minutes protocol any time they want during winter season (from November 15th to March 31th). After five winters (since the 15th November 2014), ca. 33,000 5 minutes sessions have been performed covering the whole France and 2,264 participants sent data at least once.

The student will be based at the ESE lab in Orsay, but there will be regular monthly meetings with all researchers working on the project. The student will

receive a monthly stipend of 600 euro .

Starting date : February 2020

Requirements: * Bachelors degree in a relevant field of study (ecology, biology, environmental sciences) * Good skills in data management and analysis * Skill in R

How to apply : Send your motivation letter and CV to Carmen Bessa Gomes (carmen.bessa-gomes@u-psud.fr) prior to December 10, 2019.

Carmen Bessa-Gomes <carmen.bessa-gomes@u-psud.fr>

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AarhusU EvolutionaryBiology

We want to raise awareness of the possibilities for applying for AIAS-COFUND Fellowships at the Aarhus Institute of Advanced Studies, Aarhus University, Denmark. It includes Junior Fellowships for postdoctoral researchers with a PhD age of 2- 10 years. The duration of these fellowships is 12- 36 months. It is also possible to apply for Senior Fellowships for researchers with a career experience of 10+ years, with a duration of 6-18 months. The deadline for applications is 19 January 2020. For more information, please see <https://aias.au.dk/opportunities-at-aias/aiasfellowships/aias-cofund-fellowships/> Fellows are employed at the Aarhus Institute of Advanced Studies but at the same time usually affiliated with research groups at Aarhus University. If your research has a focus on evolutionary biology, molecular ecology and/or population genomics, then we are several researchers at the Department of Bioscience, Section for Genetics, Ecology and Evolution, Aarhus University, who would be interested in collaborating, including helping with developing a proposal. Our contact information and research fields are as follows:

Volker Loeschcke, volker@bios.au.dk, [https://pure.au.dk/portal/en/persons/-volker-loeschcke\(be98a283-d511-46a0-bc38-928b4df02e4a\).html](https://pure.au.dk/portal/en/persons/-volker-loeschcke(be98a283-d511-46a0-bc38-928b4df02e4a).html), temperature stress and adaptive responses.

Philip F. Thomsen, pftthomsen@bios.au.dk, [https://pure.au.dk/portal/en/persons/philip-francis-thomsen\(42e3d0c2-8389-45cd-aa6f-82004d696ccb\).html](https://pure.au.dk/portal/en/persons/philip-francis-thomsen(42e3d0c2-8389-45cd-aa6f-82004d696ccb).html), environmental DNA and insect evolution, ecology and conservation.

Jesper Givskov Sørensen, jesper.soerensen@bios.au.dk, [https://pure.au.dk/portal/en/persons/jesper-givskov-soerensen\(ad745dfe-7c3b-4bbc-90df-4217c1b9ca92\).html](https://pure.au.dk/portal/en/persons/jesper-givskov-soerensen(ad745dfe-7c3b-4bbc-90df-4217c1b9ca92).html), adaptation to environmental stressful conditions in terrestrial invertebrates.

Trine Bilde, trine.bilde@bios.au.dk, <http://pure.au.dk/portal/da/trine.bilde@biology.au.dk>, genomic consequences of sociality and inbreeding mating systems, and

genetic and non-genetic processes involved in adaptation to different environments.

Tove Hedegaard Jørgensen, tove.jorgensen@bios.au.dk, [https://pure.au.dk/portal/da/persons/tove-h-jorgensen\(921273c5-97c6-4d06-8263-ae40f1e79201\).html](https://pure.au.dk/portal/da/persons/tove-h-jorgensen(921273c5-97c6-4d06-8263-ae40f1e79201).html), plant-pathogen interaction and evolutionary processes maintaining plant diversity.

Peter Funch, funch@bios.au.dk, <http://pure.au.dk/portal/en/peter.funch@biology.au.dk>, evolutionary zoomorphology and animal evolution.

Michael M. Hansen, mmh@bios.au.dk, <http://pure.au.dk/portal/en/michael.m.hansen@biology.au.dk>, population and conservation genomics particularly focusing on fishes and birds.

Aarhus has a population of ca. 260,000 inhabitants and features a lively, young and green environment (see <https://www.visitaarhus.com>). Since 2012 Denmark has consistently been ranked 1, 2 or 3 on the list of most happy countries in the world (the UN World Happiness Report). It has a high level of social security and one of the lowest crime rates in the world.

mmh@bios.au.dk

AppalachianStateU CoralReefEvolution

Postdoctoral researcher on coral reef DOM at Appalachian State University

A postdoctoral research position is open at Appalachian State University in the lab of Cara Fiore to work on an NSF-funded project aimed at understanding the role of sponge metabolism on the composition of dissolved organic matter on coral reefs. The position is based at ASU but will include travel for fieldwork in Curaçao, laboratories of collaborators, and to scientific conferences. The successful candidate can expect to help lead work that will integrate metabolomics and fluorescence approaches to understand changes in marine dissolved organic matter driven by sponge holobiont metabolism. The project will also include microbiome profiling techniques and the postdoc will help integrate these data

into the rest of the project. The project is collaborative with Amy Apprill at Woods Hole Oceanographic Institution and with Cole Easson (Middle Tennessee State University) and Craig Nelson (University of Hawai'i). We are searching for a candidate with scientific diving experience and with some experience in bioinformatics and/or analytical chemistry. There will be opportunities for professional development through workshops and conferences and the opportunity for teaching if there is interest. Lastly, we are interested in a candidate with excellent interpersonal skills and with an interest in working as a team with PIs, undergraduate, and graduate students.

The position posting can be found here: <https://appstate.peopleadmin.com/postings/24707> Lab group website: <https://fiorelabsymbiosis.org/> Please feel free to contact me with questions: fiorec@appstate.edu

Thank you, Cara

Cara Fiore, PhD (she/her/hers) Visiting Assistant Professor Biology Department Rankin Science North 321 572 Rivers St. Boone NC 28608 (828)262-7548

Cara Fiore <fiorec@appstate.edu>

ArizonaStateU ForensicGenomics

Postdoctoral Research Scholar in forensic genetics/genomics, Stone Laboratory, Arizona State University

The Stone Lab at the Arizona State University is recruiting one Postdoctoral Research scholar in forensic genetics and genomics to assist with a National Institutes of Justice funded project that partner researchers at ASU with the Maricopa County Office of the Medical Examiner in assessing new methods appropriate for forensic samples of burned bone. Specifically, our goals are to examine questions about the relationship between different degrees of charring/burning and DNA recovery for different skeletal elements, the success rate of the different extraction methods and different analytical methods (STR analysis, genomic SNPs), and the extent of fragmentation and damage in DNA recovered from different tissues with different levels of burning. This research will probe the margins of obtaining DNA from burned human remains using novel ancient genomic technologies optimized for maximum ultra-short molecular recovery. The anticipated start date is in January 2020. The full-time, benefits-eligible position is renewable on

an annual basis (July 1 - June 30), contingent upon satisfactory performance, availability of resources, and the needs of the university. Applicants must be within five years of receipt of their Ph.D. to be considered for initial appointment and for subsequent annual renewal.

Minimum qualifications include a Ph.D. in anthropology, evolutionary biology, or a related field by the time of appointment.

Desired qualifications include experience in ancient DNA, forensic genetic or population genetic laboratory research and the ability to analyze large NGS datasets using scripts and analysis pipelines.

For more information about the Stone Lab, please see <http://stone.lab.asu.edu/>. The position will be based in the School of Human Evolution and Social Change at the Arizona State University with links to the Center for Bioarchaeological Research (CBR) and the Center for Evolution and Medicine (CEM). The mission of the CBR is to advance problem-based research that seeks to discover and communicate new knowledge about past peoples' life experiences, including health and disease, cultural contexts, and environmental adaptations well as to address critical contemporary problems through innovative approaches to the analysis of the physical evidence of our past human biology (See <https://shesc.asu.edu/-research/centers/center-bioarchaeological-research> for more details). The Mission of the CEM is to improve human health by establishing evolutionary biology as an essential basic science for medicine, worldwide. It supports research that demonstrates the power of evolutionary biology to advance the understanding, prevention, and treatment of disease, as well as teaching and outreach initiatives (See <http://evmed.asu.edu> for details). SHESC, CBR and CEM provide postdoctoral fellows with opportunities collaborate with faculty from a wide-range of disciplines including anthropology, biology, complex systems, computational informatics, genetics, infectious disease, psychology, and virology.

To apply, please submit application materials electronically to <http://apply.interfolio.com/72158> required materials include: 1) a cover letter outlining qualifications and previous research, 2) a current curriculum vitae, and 3) contact information (including email addresses) for three professional references. General questions about this initiative should be directed to Dr. Anne Stone (acstone@asu.edu).

Initial deadline for complete applications is January 4, 2020; if not filled, review of complete applications will occur every two weeks thereafter until the search is closed.

The fiscal year (12-month) salary for this position is

\$47,476 along with competitive benefits through ASU including health insurance, paid vacation, sick leave, and holidays. The associate must be in residence in the greater-Phoenix metropolitan area during the appointment.

A background check is required for employment.

Arizona State University is a VEVRAA Federal Contractor and an Equal Opportunity/Affirmative Action Employer. All qualified applicants will be considered without regard to race, color, sex, religion, national origin, disability, protected veteran status, or any other basis protected by law. ASU's full non-discrimination statement (ACD 401) is located on the ASU website at: <https://www.asu.edu/aad/manuals/-acd/acd401.html> <https://www.asu.edu/titleIX/> In compliance with federal law, ASU prepares an annual report on campus security and fire safety programs and resources. ASU's

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AustraliaNatIU PopulationGenomics

We seek an experienced population geneticist to lead analyses of genomic diversity and demographic history of Australian vertebrates with small geographic ranges; reptiles endemic to tropical refugia, and mammals restricted to islands or remnant mainland populations. In each case, the appointee will apply statistical models and analyses to population genomic data, and collaborate with other researchers to support these ARC funded projects.

The position will start in March 2020 and has confirmed funding for 2 years, with the potential for further funding. The appointee will be located in the division of Ecology and Evolution within the Research School of Biology - a leading evolution research group in Australia. There will also be opportunity to participate strongly in research and training activities of the co-located Centre for Biodiversity Analysis.

The successful applicant will be able to demonstrate:

- A PhD in molecular population genetics or a closely related discipline; £ - Substantial expertise in manipulating and analyzing genome-scale data; - Evidence of

ability to bring projects to completion, including high quality publications - Basic skills in bioinformatics, including understanding of pipelines in Python or PERL; and - Strong organizational skills and ability to work across multiple projects simultaneously, £ - Ability to co-supervise research students - Good team work and communication skills

Applications should be submitted via ANU Jobs: <https://jobs.anu.edu.au/en/job/534903/postdoctoral-fellow> For further information please contact Craig Moritz, Director, Centre for Biodiversity Analysis, craig.moritz@anu.edu.au

Craig Moritz Research School of Biology & Cntr for Biodiversity Analysis Australian National University +61 2 6125 5651 (CM office) +61 2 6125 9492 (via Claire, M-F am only)

Craig Moritz <gekkojessie@gmail.com>

Barcelona ComparativeGenomics

Postdoc position in Comparative and Structural Genomics

Ruiz-Herrera's lab is looking for a highly motivated candidate that can apply for a "Beatriu de Pinós (BP) programme" postdoctoral fellowship.

For more information see: <http://agaur.gencat.cat/en/beques-i-ajuts/convocatories-per-temes/Ajuts-per-la-incorporacio-de-personal-investigador-postdoctoral-al-sistema-catala-de-ciencia-i-tecnologia-dins-del-programa-Beatriu-de-Pinos-BP-2019?evolutiuTramit=1>

Requirements: - PhD degree in Biology, Genetics or related discipline or equivalent obtained between 1st January 2012 and 31st December 2017. - Competitive publication record. - Bioinformatics analysis of 'omics data. - Background in comparative genomics and population genetics/ statistical genetics is desirable.

What we offer: - Three years contract. - The total annual amount stipend will be between euro 25,000 and euro 30,000 gross, depending on experience.

- Additionally, the grant includes a complementary amount of euro 12,000 aimed exclusively at educational and training activities and attendance to meetings.

Ruiz-Herrera's lab is set at Universitat Autònoma de Barcelona (UAB), Barcelona (Spain). The long-term research goal of our research group is to provide a unified and encompassing view of how genomes are organized

and regulated in mammalian cells. Within this framework, the candidate will develop a project on the evolution and function of the higher-structural organization on mammalian genomes. For further information please see:

<http://grupsderecerca.uab.cat/evolgenom/> . Likewise, UAB is located close to the city of Barcelona and is one of the major public universities in Spain. The UAB is internationally acknowledged for its quality and innovation in research. It coordinates a potent scientific and technological centre, which comprises all the departments, science and technology services, research centres, institutes and university hospitals affiliated with the UAB.

Complete application packages, including a CV, a brief (1-page) statement of research interests, and the names and e-mail addresses of two referees should be sent to:

Dr. Aurora Ruiz-Herrera. Email: aurora.ruizherrera@uab.cat Application deadline: 10th January 2020.

Aurora Ruiz-Herrera Professora Agregada

Dept. Biologia Cel.lular, Fisiologia i Immunologia Facultat de Biociències

Campus de la UAB 08193 Cerdanyola del Vallès §Barcelona §Spain <http://grupsderecerca.uab.cat/-evolgenom/> +34 581 20 51 www.uab.cat "A. Ruiz-Herrera " <aurora.ruizherrera@uab.cat>

BielefeldU Theoretical Evolutionary Ecol

*Postdoc position for 21 month in Theoretical Evolutionary Ecology at Bielefeld University *

A Postdoc position in theoretical evolutionary ecology is available at the Faculty of Biology at Bielefeld University in the Department of Evolutionary Biology. The position can start as soon as possible and is funded until the end of the year 2021 by the German Research Foundation (DFG) within the recently approved collaborative research centre (SFB/TRR 212) entitled: A Novel Synthesis of Individualisation across Behaviour, Ecology and Evolution: Niche Choice, Niche Conformance, Niche Construction (NC³).

The aim of the Postdoc project is to develop ecological and evolutionary theory to contribute towards a better understanding of intra-specific niche variation. The

project is entitled "Modelling adaptive individualized niches in behaviour" (sub-project D04 of the collaborative research centre, with Klaus Reinhold). This theoretical project will explore the conditions that favour the evolution of between-individual variation in behavioural niches. The aim is to focus on mate choice and exploration and examine to which extent phenotypic variation can be maintained based on genetic differences and variation in adaptive phenotypic plasticity.

*The collaborative research centre: *The postdoc will be embedded within a larger collaborative research centre (SFB) comprising 18 principle investigators and more than 20 postdoc and PhD students based at Bielefeld University, the University of Münster and the University of Jena. The aim of the SFB is to produce a conceptual and empirical synthesis of individualization across behaviour, ecology and evolution. The SFB will provide exceptional opportunities for interdisciplinary collaboration and academic networking, together with structured training, scientific exchange and early career support programs. Full details of the SFB can be found at www.uni-bielefeld.de/biologie/-crc212. For further information on the projects and the involved departments, please contact Klaus Reinhold (klaus.reinhold@uni-bielefeld.de) with any informal inquiries

Main responsibilities

Research tasks: Development of eco-evolutionary models (90%) ——— Mathematical analysis of models ——— Implementation in a programming language, e.g. in R, C++, Python Simulation studies ——— Collaboration with other research groups in the collaborative research centre Writing scientific publications

Organizational tasks in the research group and collaborative research centre (10%)

**

Applicant's profile

We seek bright and highly motivated postdoctoral researchers with a university degree in a relevant discipline, e.g. biology, mathematics, physics or bioinformatics a completed PhD in a relevant field, ideally related to theoretical ecology, population genetics, behavioral ecology or evolutionary ecology experience with mathematical modeling of evolutionary processes programming skills in at least one programming language (e.g. R, C++, Python) ability to work both independently and as part of a team excellent oral and written communication skills in English The following qualifications would additionally be of advantage: papers in peer-reviewed international journals, experience in collaborations between empiricists and theoreticians, and experience with

high-performance computing

Remuneration

Salary will be paid according to Remuneration level 13 of the Wage Agreement for Public Service in the Federal States (TV-L). As stipulated in § 2 (1) sentences 2 of the WissZeitVG (fixed-term employment), the contract will end on December 31, 2021 (extension possible). In accordance with the provisions of the WissZeitVG and the Agreement on Satisfactory Conditions of Employment, the length of contract may differ in individual cases. The employment is designed to encourage further academic qualification. In principle, these full-time position may be changed into a part-time position, as long as this does not conflict with official needs. Bielefeld University is particularly committed to equal opportunities and the career development of its employees. It offers attractive internal and external training and further training programmes. Employees have the opportunity to use a variety of health, counselling, and prevention programmes. Bielefeld University places great importance on a work-family balance for all its employees. Bielefeld is a city of 325,000 inhabitants with all expected amenities and easy access to the Teutoburger Wald for hiking and other outdoor pursuits. It offers a high standard of living and is well connected to most major European cities

Application procedure

For full consideration, please provide: (i) a letter of motivation including a statement of your research interests and skills and



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Bronx Zoo New York Molecular Diagnostics

Wildlife Conservation Society Position Title: Molecular Diagnostics Post-doctoral Fellowship Location: Bronx Zoo

The Wildlife Conservation Society's (WCS) Bronx Zoo, Bronx, NY, seeks to hire a full-time Molecular Post-doctoral Fellow, for 1.5 years, to participate in the development and implementation of portable, field-friendly

molecular diagnostic tools for zoo and field-based conservation projects. Minimum qualifications include a PhD in genetics or molecular biology, proficiency in conventional and quantitative PCR and RT-PCR assay development including primer and probe design, multiplex PCR, DNA/RNA extraction, DNA sequence analysis, and bioinformatics analysis. Priority will be given to applicants with previous experience using MinION/Oxford Nanopore Technology. Proficiency in Mandarin Chinese would benefit the international component of the project. Applicant must be motivated and self-driven and have the ability to work independently, must meet deadlines, and actively contribute to grant and manuscript preparation and submission.

Primary responsibilities include 1. performing research and development, and testing and troubleshooting of scientifically rigorous protocols (including all appropriate controls) and field-based DNA extraction procedures for species identification from a variety of tissue samples including bone, 2. develop, validate and optimize PCR assays and sequencing protocols on standard and new technology equipment for species identification (includes primer design and optimization, melt curve analysis and sensitivity studies), 3. validate protocols using hand-held PCR for use in field settings (including solar power for 'off-the-grid' situations), 4. participate in international training activities and help to organize and coordinate related training workshops, 6. prepare manuscripts for peer-reviewed publication, 7. perform grant writing to fund research initiatives, 8. participate in weekly lab meetings, program meetings and other WCS molecular lab activities.

The position is based at the WCS's Bronx Zoo Wildlife Health Center, Bronx, NY. This 30,000 square foot hospital includes molecular diagnostics and clinical laboratories, necropsy, and histology laboratories, a sterile surgery suite, treatment room, digital radiography and ultrasound imaging suite, interior and exterior animal wards, a nursery and ICU, biomaterials archives, offices and meeting rooms.

Additional information about the position and our programs is available by contacting:

Tracie Seimon, PhD Wildlife Conservation Society Zoological Health Program Head, WCS Molecular Program

Email: tseimon@wcs.org

Please visit <http://www.wcs.org/about-us/careers/nyc-full-time.aspx> for a complete job description and instructions on how to apply online. Application review will begin on January 1, 2020 and continue until a suitable candidate is identified. Required application materials are a letter of intent listing prior experience and posi-

tions, including credentials and career goals; curriculum vitae; and the names of 3 professional references. EEO M/F/D/V.

EOE/ AA/M/F/Vets/Disabled

“Mosqueda, Angimar” <amosqueda@wcs.org>

jaime.iranzo@upm.es

DEADLINE: Applications will be evaluated as they arrive. The position will be open until the position is filled, or until January 31st.

jaime.iranzo@upm.es

CBGP Madrid Evolutionary Genomics

Postdoctoral position available on Computational Evolutionary Genomics and Ecology of the Microbiome.

The group of Dr. Jaime Iranzo studying “Evolutionary dynamics of genomes, viruses, and microbial populations” at the Centre for Plant Biotechnology and Genomics (CBGP, Universidad Politecnica de Madrid, Spain) offers a postdoctoral contract to investigate fundamental aspects of genome evolution and ecological interactions within human and environmental microbiomes. The initial appointment is for 1 year, with an option to stay in the group for a longer period of time through other sources of funding.

The postdoctoral researcher will join a multidisciplinary team of young scientists that combine empirical data, computational tools, and mathematical models to study the ecology and evolution of microbial populations. The details of the research project will be decided by the PI and the postdoctoral researcher based on common interests and the candidate’s field of expertise. For more information on the current and past research lines of the group, please see: <http://www.cbgp.upm.es/index.php/es/-informacion-cientifica/csbgp/jaime-iranzo> REQUIREMENTS: We are seeking a highly motivated candidate with strong quantitative and computational skills, and a background in biology, bioinformatics, complex systems, or mathematical modeling. Although not essential, some degree of familiarity with metabolic modeling, flux balance analysis, and population dynamics would be desirable.

The contract is funded by the Youth Employment Initiative of the European Commission through the Madrid Autonomous Government. To be eligible, candidates must be under 30 at the time of signing the contract and citizens of a European country (or otherwise legally allowed to work in Spain).

HOW TO APPLY: If interested, please send your CV and a cover letter to Dr. Jaime Iranzo:

CharlesU Prague Plant Phylogenomics

We seek a highly motivated, independent researcher interested in developing her/his own research programme within a Czech Science Foundation project focused on phylogenomics and comparative biogeography of tropical-alpine plants. The successful applicant will join the interconnected research teams of Roswitha Schmickl (<https://lab-allience.natur.cuni.cz/plantevocytogen/people-research>) and Filip Kolář (<https://botany.natur.cuni.cz/ecolgen>). She/he will also collaborate with other specialists in biodiversity of the target regions and in methodologies, both within our institution (Peter Sklenář; Tomáš Fér) and internationally (Christian Brochmann, University of Oslo; Tomasz Suchan, University of Toulouse; Peter Schönswetter, University of Innsbruck).

Project details: Species richness and endemism of the tropical-alpine floras of South America and Africa have attracted botanists since the early 19th century. Evolutionary mechanisms that generated such diversity, however, still remain largely unknown. The main goal of this research is to compare the timing of plant radiations in tropical-alpine habitats, detect key evolutionary processes involved in these radiations, particularly those related to Pleistocene climate oscillations, and assess their relative contribution to the origin of plant diversity in these biodiversity hotspots. To answer these questions, the core of the project will be analysis of intra- and inter-specific DNA sequence variation gathered using the state-of-the-art methods (target capture, hybridization-RAD sequencing) across several recently diversified plant genera, and interpreting them in a comparative manner using available environmental and trait data. The candidate is expected to be fully involved in the overall project design and lead the analytical part with opportunities to design spin-off projects. The project allows an immediate start with phylogenomic analyses, as a majority of samples are already collected and partly (one genus) also sequenced. For more info see <https://botany.natur.cuni.cz/ecolgen/node/59>. Re-

quirements: - innovative thinking, enthusiasm for evolutionary biology - willingness to collaborate and lead an independent research programme - experience in phylogenetics/phylogenomics and/or comparative biogeography - Ph.D. education in evolutionary biology or related fields (the Ph.D. degree is not required at the starting date)

Optional: - involvement in teaching relevant courses in methodology/biogeography - participation in fieldwork in Neotropical mountains in 2020 - support in seeking additional self-funded projects in national (e.g. Junior projects within The Czech Science Foundation) and international funding schemes (e.g. Marie Curie, EMBO fellowship) in order to strengthen their position for gaining research independence

We offer: - competitive academic salary, at the average for the city of Prague (1,500 euro) - work in a young, dynamic and international environment of the Department, situated in the inspiring historical center of Prague - co-supervision of a Ph.D. student enrolled within the same project - research stays in collaborating labs (University of Oslo; University of Innsbruck)

Questions and applications (CV + half-page motivation letter + contact information for two references) should be sent to Roswitha Schmickl (roswitha.schmickl@natur.cuni.cz). Review of applications will begin on 20.1.2020 and will continue until the position has been filled. The position is available from March 2020.

– Roswitha Schmickl, Ph.D.

Univerzita Karlova PøirodovÁá fakulta Albertov 6, 128 43 Praha 2 www.natur.cuni.cz Charles University Faculty of Science Albertov 6, 128 43 Praha 2 www.natur.cuni.cz/en

ChinaXTBG 2y MountainBiodiversity

The Group of biogeography and ecology at Xishuangbanna Tropical Botanical Garden of Chinese Academy Science (Yunnan, China) invites applications for two Postdoctoral Fellowships.

Area of Research: Biogeographic history and evolution of alpine plants

Job Description: We seek two highly motivated postdoctoral fellows with particular interests in biogeogra-

phy and evolutionary biology of alpine plants. Staff and students of the research group are inspired by the remarkably biodiversity in the Hengduan Mts, the Himalayas and adjacent alpine regions, the world's hottest hotspot for plant diversity and endemism, and want to understand how this diversity has been formed and evolved. Biogeography is at the heart of everything we do, but we also devote to studies of macroevolution of angiosperm functional traits. While not simply focusing on single model lineage, we are committed to integrate multiple taxa and new methods for studying the origin of these floras. The Fellow will be a fully participating member of the garden, and is going to collaborate with group members on a funded project, which aims to compare the assembly history of alpine floras at a global scale, especially those in the Andes, the Alps and the Himalayas/ Hengduan Mts.

Xishuangbanna Tropical Botanical Garden (XTBG) offers researchers and staff competitive salaries and a generous package of benefits. XTBG has built up a diverse and international research environment with nearly 1/3 of graduated students and Postdocs from over 15 countries. The garden passes primary evaluation of 5A Scenic Spot in China. You will live and work in the beautiful garden, experiencing the unique culture of Dai people and the living cost is reasonably low. You will also have an exceptional chance to see and explore the most renowned flora of the Chinese Hengduan Mts. through the annual group expedition and field trip.

Required Qualifications: The positions are open to suitable candidates from any nationality. Applicants must have a PhD in evolutionary biology or ecology or a related area of study. They should have strong background in comparative phylogenetics or/and computational biology and a strong publication record.

Salary: \$26,000/ year. Applicants are able to apply for additional research funding from the CAS, and the actual salary can reach up to \$36,000.

This is a two-year postdoc position, and the initial date is flexible. Prior to applying, we do encourage candidates to contact group members with shared interests about research activities and details of the benefits. To get more information about the institution and the research group web: <http://english.xtbg.cas.cn/> http://groups.xtbg.cas.cn/beg/-beg_en/BEG_en_intro/201706/t20170628_376811.html Application Instructions: To apply please send, in one pdf, a short motivation (i.e. cover) letter, CV and the names and contact information of three references to ywxing@xtbg.org.cn

"f97625015@g.ntu.edu.tw" <f97625015@g.ntu.edu.tw>

Cologne NematodeGenomics

Are you interested in working in a welcoming city in the very heart of Europe? Do you have experience with 2nd and 3rd generation long-read sequencing and computational data analysis? Do you also have a background in molecular biology and an interest in supervising—PhD-students? Are you interested in evolution of development, evolutionary biology, and single-cell genomics? Do you know your worms, in particular your nematodes, or are willing to learn about them?

If this more or less fits you, please do consider joining my new group at the University of Cologne as—a postdoc early in 2020. An official job description will follow. Email me if you have informal questions or would like to chat— about this.

Philipp

Dr. Philipp Schiffer Teaching Fellow Centre for Life's Origins and Evolution University College London

Philipp Schiffer <philipp.schiffer@gmail.com>

Cologne Wageningen ExperimentalEvolution

Postdoc position in experimental evolution of antibiotic resistance

We seek a postdoc for a collaborative project between the groups of Joachim Krug, Tobias Bollenbach (both at the Institute for Biological Physics, University of Cologne) and Arjan de Visser (Laboratory of Genetics, Wageningen University) on predicting evolutionary pathways to beta-lactam resistance. The project combines theory and experiments and is part of the Collaborative Research Center 1310 “Predictability in Evolution” funded by Deutsche Forschungsgemeinschaft (DFG) and coordinated at the University of Cologne. The aim of the project is to identify key predictors of the evolution of beta-lactam resistance across time scales and levels of organization. The postdoc will perform evolution experiments with *E. coli* and TEM-1 beta-lactamase to develop and test predictions about the effect of genetic

and ecological constraints on the choice and repeatability of evolutionary trajectories. The experimental work will be done in close collaboration with a theoretical postdoc appointed within the same project. The position is available per 1 May 2020 until 31 December 2021, with possibilities for extension.

Profile: We seek a highly motivated person with a PhD in evolutionary biology, microbiology, biotechnology, or a related field. Experience with microbial genetics and molecular biology is required; experience with evolutionary theory and quantitative models is welcome. Experimental work will be carried out at the University of Cologne (lab of Tobias Bollenbach) and Wageningen University (lab of Arjan de Visser). Salary will be paid according to level E13 of the German public service salary scale (TV-L).

Applications: Submit enquiries and applications (including CV, letter of motivation and names and contact information of two references) before 15 January 2020 to Arjan de Visser or Joachim Krug. The University of Cologne is one of the leading German institutions in molecular and evolutionary genetics. Wageningen University is a leading university in the field of the life sciences. The University of Cologne is an equal opportunity employer in compliance with the German disability laws. Women and handicapped persons are therefore strongly encouraged to apply.

Prof. Arjan de Visser Laboratory of Genetics Wageningen University, Radix building Droevendaalsesteeg 1 6708 PB Wageningen The Netherlands P: (+)31 317 483144 M: arjan.devisser@wur.nl W: <https://-arjandevisserlab.wordpress.com> Prof. Joachim Krug Institute for Biological Physics Zülpicher Strasse 77 50937 Köln Germany P: (+)49 221 470 2818 M: jkrug@uni-koeln.de W: www.thp.uni-koeln.de/krug/ “Visser, Arjan de” <arjan.devisser@wur.nl>

Cornell SouthAmericaFrogDiversification

Postdoctoral Associate: Adaptive diversification of frogs along the Brazilian Dry Diagonal

College of Arts and Sciences, Cornell University, Ithaca, NY A fulltime postdoctoral position is available in the Zamudio laboratory, Department of Ecology and Evolutionary Biology, Cornell University. This two-year position is funded by an NSF Dimensions of Biodiver-

sity Grant to study adaptation of multiple plant and animal lineages to the Dry Diagonal of Brazil (cerrado and caatinga biomes). This post-doc will focus specifically on divergence and adaptation in dry diagonal frogs. The goal of the Dry Diagonal Dimensions project is to study how adaptation across environmental space contributes to phenotypic, genomic, and phylogenetic diversification among frog species. Specifically, our goal is to determine if genomic signatures of phenotypic adaptation target similar genetic pathways across invasion events and lineages in three different frog clades. The primary responsibilities of this position include 1) conducting field and laboratory research to meet the goals of the proposal, 2) overseeing development of field and lab sampling protocols and downstream bioinformatic analyses of data, 3) analyzing population genomic data and writing manuscripts, and 4) contributing to mentoring and coordination of projects of graduate and undergraduate students involved in research.

QUALIFICATIONS: Preferred qualifications include: - Ph.D. in evolutionary organismal biology, or closely related field - Experience with relevant literature and research methods - Expertise in generation and analyses of population genomic data and/or functional genomics - The ability to organize and lead field efforts in a foreign country (Brazil) - Ability and desire to work collaboratively, mentor graduate and undergraduate students, and to also work independently - Project leadership, time management, communication, and writing skills - Strong record of publication in the field of evolutionary biology

To apply: applicants should submit their cover letter, CV, a 2-3 page research statement including relevant background and experiences, as well as the names and email or phone contacts of three professional references to <https://academicjobsonline.org/ajo/jobs/15664> Review of applications will begin on March 1, 2020.

Please contact Dr. Zamudio (krz2@cornell.edu) with any questions.

Diversity and Inclusion are a part of Cornell University's heritage. The College of Arts and Sciences at Cornell embraces diversity and seeks candidates who will create a climate that attracts students and faculty of all races, nationalities, and genders. We strongly encourage women and underrepresented minorities to apply. Cornell University is a recognized EEO/AA employer and educator, valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.

Kelly Zamudio <krz2@cornell.edu>

Cornell South American Frog Diversification

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krz2@cornell.edu

DelawareStateU EvolutionaryNeuroscience

The Center for Neuroscience and the Department of Psychology at Delaware State University is pleased to announce that a Postdoctoral Research Associate position is available in the Charvet lab. The postdoctoral Associate will work with a diverse team to integrating state of the art MR imaging with gene expression to study the evolution and development of human and non-human brains. The goal of this research is to integrate from genetics to neuroimaging to enhance translational work from model organisms to humans. This is an excellent opportunity to work collaboratively with diverse researchers and to gain experience working with methods that cut across scales of organization. Previous experience with a programming language is preferred. A PhD degree in Biology, or related field is required. Please contact Dr. Christine Charvet at ccharvet@desu.edu. Apply here: <https://chu.tbe.taleo.net/chu01/ats/-careers/requisition.jsp?org=DESU&cws=1&rid=2642> charvetcj@gmail.com

EuropeanResearchCouncil 2 EvolutionaryGenomics

ERC.2.EvolutionaryGenomics

Postdocs in evolutionary genomics and phylogenomics

are available to join the ERC 'GENECLOCKS' project (<http://cordis.europa.eu/project/rcn/207593.en.html>) headed by Gergely Szollosi (<http://ssolo.web.elte.hu>). Two positions are offered for 2 years with the possibility of a one year extension. The position comes with a salary of up to EUR 43,200 per year (approx. up to EUR 2,400-2,900 net per month after taxes), as well as a travel and research funds.

We are looking for an individual who received his or her PhD preferably within the last six years, who is highly self-motivated and can work independently on a project that he or she will help develop in the context of GENECLOCKS.

A central theme of GENECLOCKS is disclosing new sources of information for dating the first three-quarters of Earth's evolutionary history that are independent from both fossils and molecular clocks. Life's early history has remained terra incognita until now, because the fossils needed to calibrate standard evolutionary timescales are simply not available for microbial life. Microbial fossils are scarce and difficult to interpret in a phylogenetic context with confidence. In previous work we have shown that patterns of lateral gene transfer inferred from modern genomes encode a record of co-existing lineages throughout the history of life, and that we can use this record to reconstruct the relative ages of microbial groups from the three domains of life in deep time.

This discovery is a game changer for anyone interested in the history of life, from either a geological or genomic perspective. It demonstrates the existence of a new and abundant source of dating information that is inscribed in the genome of any organism, provided a gene transfer occurred in its ancestry. This constitutes the overwhelming majority of the diversity of life.

Postdocs will undertake projects together with international collaborators with the goal of either i) developing new methods that systematically extract information on the pattern and timing of genomic evolution by explaining differences between gene trees, or ii) apply existing methods to resolve the timing of microbial evolution and its relationship to Earth history and answer long standing questions. Possible collaborations and associated projects include:

Reconstructing a dated phylogeny of Eukaryotes including their position within Archaea in collaboration with Tom Williams at the University of Bristol.

Implementing and applying methods to include transfer derived relative age constraints in molecular clock estimates with Bastien Boussau and Vincent Daubin at the LBBE in Lyon.

Developing novel species-tree aware phylogenetic methods with the guys who make RAxML at Exelixis Lab in Heidelberg and Nicolas Lartillot at the LBBE in Lyon.

Developing new hierarchical probabilistic models of gene tree-species tree reconciliation with Sebastian Höhna at LMU in Munich.

Research visits of up to several months are foreseen as part of potential collaborations.

Recent GENECLOCKS publications:

AA Davín, E Tannier, TA Williams, B Boussau, V Daubin, GJ Szöllősi Gene transfers can date the tree of life *Nature ecology & evolution* 2 (5), 904 (2018) <https://doi.org/10.1038/s41559-018-0525-3> pdf: http://ssolo.web.elte.hu/Davin_2018_NEE.pdf TA Williams, C Cox, P Foster, GJ Szöllősi, T Embley Phylogenomics provides robust support for a two-domains tree of life *Nature Ecology and Evolution* (2019) <https://doi.org/10.1038/s41559-019-1040-x> pdf: https://ssolo.web.elte.hu/Williams_2019_NEE.pdf D Schrempf, N Lartillot, GJ Szöllősi Scalable empirical mixture models that account for across-site compositional heterogeneity *BioRxiv preprint* (2019) <https://doi.org/10.1101/794263> GeneRax: A tool for species tree-aware maximum likelihood based gene tree inference under gene duplication, transfer, and loss B Morel, AM Kozlov, A Stamatakis, GJ Szöllősi *BioRxiv preprint* (2019) <https://doi.org/10.1101/779066> To be considered, please send a single merged PDF to ssolo@elte.hu that contains your CV including publication list, preferably with a link to your google scholar profile, academic transcripts, a statement of research interests (3 pages or less) as well as three academic references. Please include 'GENECLOCKS2020' in the subject of your email. Applications will be considered until the position is filled with first round of selection

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FUBerlin HumanEvolution

*Postdoc position on Human Evolution, * Freie Universität Berlin, Group of Katja Nowick

Our group "Human Biology and primate Evolution" investigates the molecular evolution of humans using

state-of-the art experimental and computational methods. Our focus is on differences in gene regulation, evolution of transcription factors and non-coding RNAs and their influence on the evolution of the human brain, its development and functions.

The postdoc is expected to propose and develop a research project that fits to the general interests of the group. Requirements for the position are a Dr. rer. nat. or PhD in Biology or Bioinformatics or another relevant field. The ideal candidate would have a strong interest in human evolution and expertise within multiple of the following areas: conducting research with induced pluripotent stem cells, differentiation into neuronal cells, CRISPR/Cas9, functional investigation of transcription factors and non-coding RNAs, ChIP-Seq, ChIRP-Seq, RNA-Seq, gene regulatory networks, computational analysis of -omics data, R, Python, network analysis.

She/he will participate in teaching "Human Biology" (in German) as well as in "Human Evolution" and/or "Bioinformatics for Biologists" (in English). The position allows for supervising Bachelor and Master students as well as for applying for own funding, and is thus a good opportunity for acquiring necessary experience for applying for faculty positions afterward. It is initially for three years but can be extended to up to six years. Scientific communication within the group is in English.

If interested, please send a motivation letter including your project idea along with your CV and two reference letters to katja.nowick@fu-berlin.de. Deadline: January 31st 2020 Indicate the job reference: Kennung 21243500 / 41 / 19 Prof. Nowick

Dr. Katja Nowick Professorin für Humanbiologie

Freie Universität Berlin Institut für Zoologie Königin-Luise-Straße 1-3 14195 Berlin

Phone: +49 30 83863761

Katja Nowick <katja.nowick@fu-berlin.de>

George WashingtonU Metagenomics

Postdoctoral Scientist

The Computational Biology Institute, Department of Biostatistics and Bioinformatics, in George Washington University's Milken Institute School of Public Health is seeking a highly motivated Postdoctoral Scientist (PDS). The work performed by the PDS will contribute to our

diverse research program devoted to the investigation of: i) the role of microbial infection and host immunity in the etiology of respiratory and gastrointestinal disorders and ii) the impact of microbiomes in natural and artificial ecosystems.

The PDS will focus on Omic-based research (metagenomics, metatranscriptomics and transcriptomics) on two main topics: i) the impact of microbial diversity and function on human health (host-microbe interactions), and ii) the ecological role of microbes in soil-plant ecosystems (microbe-environment interactions).

These studies are part of ongoing collaborations between national (Children's National Hospital, Washington DC) and international institutions (University of Vigo, Spain and Universidad Andres Bello, Chile) and the Computational Biology institute, George Washington University.

The selected candidate will be based on the Computational Biology Institute in Washington DC. For further information about the Computational Biology Institute at George Washington University, please see <http://cbi.gwu.edu>. All applications for consideration must be submitted online but for questions relating to this opportunity, please contact Dr. Pérez-Losada, Computational Biology Institute, Milken Institute School of Public Health, The George Washington University, at mlosada@gwu.edu.

Responsibilities Include:

- Design and carry out analysis of high-throughput sequencing data (16S rRNA, DNaseq and RNAseq) - Engage in research projects on the basis of the analysis of sequencing data - Collaborate with other lab members in the development of strategies for high-throughput sequencing data analyses - Prepare research papers and presentations to disseminate research results through academic journals and conferences - Work with other lab members on projects as assigned - Performs other related duties as assigned. The omission of specific duties does not preclude the supervisor from assigning duties that are logically related to the position.

Preferred Qualifications:

- Applicants must possess a PhD in a relevant discipline (Computational Biology, Bioinformatics, Microbiology and Microbial Ecology), with experience in Genomic and Systems Biology analyses and an understanding of the key issues and relevant tools in the field.
- A good understanding of multivariate statistics is essential.
- A strong quantitative background and good programming skills (R, Python/Perl), Big data managing and

integration are all required

- Experience with DNA and RNA extraction and sequencing is useful but not essential.

Interested candidates can apply for this position at www.gwu.jobs, where they can search on the following Posting Number: R000933. The anticipated start date is flexible, but the position can start as early as January 1, 2020. Review of candidates is ongoing and will continue until the position is filled.

“mlosada@email.gwu.edu” <mlosada323@gmail.com>

Hawaii InsectFunctionalGenomics

Postdoc:Hawaii.InsectGeneEditing_FunctionalGenomics

Postdoc position: Insect Functional Genomics and Bioinformatics, Hawaii Aloha! The USDA-ARS Pacific Basin Agricultural Research Center has funding for a postdoc in the area of insect functional genomics and bioinformatics. This research project is focused on 1) utilizing genomic and genetic tools to characterize existing genetic sexing system used in tephritid fruit fly sterile insect technique programs (e.g. Mexfly, medfly, oriental fruit fly); and 2) utilize gene editing technologies to support emerging SIT programs in Tephritid fruit flies. The duties include analysis of NGS data, focusing on QTL analysis, generation of linkage maps, whole genome sequencing, and SNP genotyping as well as wet-lab techniques in CRISPR/Cas9 gene editing and other transformation methods, library preparation for high-throughput sequencing, genotyping, and insect colony and strain maintenance. We have advanced computing resources and a very active research program. Salary is ~\$63k/year with benefits, hired through University of Hawaii Manoa, and the job will be stationed at the USDA-ARS Pacific Basin Agricultural Research Center in Hilo, Hawaii. Funding is guaranteed for 1 year, with possibility of extension based on performance. PhD or Masters with extensive experience is required. If interested, please contact Dr. Scott Geib at scott.geib@ars.usda.gov and apply for the job online at: University of Hawai'i NEOGOV: <https://www.governmentjobs.com/careers-hawaii> and Search 85393T, this position closes 12/17/19. Scott Geib, PhD Research Entomologist USDA Pacific Basin Agricultural Research Center Tropical Crop and Commodity Protection Research Unit 64 Nowelo Street Hilo HI, 96720 808-959-4335 (office) 808-959-5470 (fax) Scott.Geib@USDA.GOV

“Geib, Scott” <scott.geib@usda.gov>

IDCHerzliya Israel EvolutionaryTheory

IDC Herzliya School of Computer Science Ram Lab
Postdoctoral fellowship

Wanted: Postdoctoral fellow with background in population genetics / mathematics / physics / statistics for an ISF-funded project at the Ram Lab (Computer Science, IDC Herzliya, www.yoavram.com). The goal is to develop a theoretical framework for understanding the evolutionary role of aneuploidy / an imbalance in the number of chromosomes in the cell. The postdoc will use mathematical analysis and computer simulations to study deterministic and stochastic evolutionary models that include the effects of aneuploidy, mutation, selection, and genetic drift. Other relevant ideas can also be considered, see www.yoavram.com/research < <http://www.yoavram.com/research> > for a list of research topics.

Potential candidates should email Dr. Yoav Ram (yoav@yoavram.com) for further details or to apply.

The position is open until filled. Duration is flexible.

IDC Herzliya is a small private university in Herzliya, Israel, just outside Tel-Aviv, with an international student body and active research community. The School of Computer Science was established >@0 years ago and includes faculty studying diverse topics, from encryption and graph theory to game theory and computational biology. The Ram Lab studies evolutionary biology, ecology, and cultural evolution using mathematical, computational, and statistical models and collaborations with experimental biologists.

Yoav Ram <yoav@yoavram.com>

Innsbruck PaleoBotany

The Department of Botany at the Faculty of Biology, University of Innsbruck, Austria, is looking to fill a

Senior Scientist (Doctorate/PhD) position in Classical and Molecular Palaeoecology (Code BIO-10960) Start

date/duration:

as soon as possible for 4 years, possibility for a permanent position depending on requirement and performance evaluation

Administrative unit:

Department of Botany Extent of employment:

40 hours per week Job Description: Applications are invited for a Senior Scientist position within the Unit of Plant Evolution and Diversity of the Department of Botany of the University of Innsbruck, initially for 4 years, with possibility of conversion to permanent position. The jobholder will carry out independent high-level research in the field of classical and molecular palaeoecology, with responsibility for the pollen forecast service for the Austrian federal state of Tyrol and collaboration with the national pollen forecast service of Austria. The jobholder is expected to acquire external funding, collaborate internally and internationally and contribute to the departmental high-impact publication output. He or she will contribute to teaching the curricula offered by the Faculty of Biology (Bachelor's Degree Program in Biology and Master's Program in Botany) and to the supervision of Bachelor and Master students.

Main tasks

Research: Project-directed work in collaboration with the international scientific community, supported by independently acquired external funding aimed at high impact publishing. Independent research in the field of classical palaeoecology (e.g. palynology, analysis of macrofossils or charcoal) and molecular palaeoecology

Pollen Forecast Service: Scientific leadership, further development and administration of the Pollen Forecast Service for the Austrian federal state of Tyrol at internationally accepted aerobiological standards and collaboration with local hospitals.

Teaching: Teaching according to the curricula of the Faculty of Biology (Bachelor's Programme "Biology" and Master's Programme "Botany"), and supervision of BSc and MSc research projects.

Requirements PhD in Biology or converging areas Relevant publications in high-level, international, peer-reviewed journals Practical experience with methods of classical Quaternary palaeoecology and excellent knowledge of the analysis of plant micro- and macrofossils Practical experience with metagenomic shotgun sequencing of environmental DNA (eDNA), for example from lake stratigraphies or moor boreholes Readiness to invest into the development of the Pollen Forecast Service for the Austrian federal state of Tyrol (30% of work time) Excellent knowledge of

the morphology of pollen and other palynomorphs expected to be present in pollen traps Experience and ability (fitness) to conduct field work Proven cooperation with national and international research groups and mobility experience Proficiency to teach courses in German within two years of appointment Several years of post-doc experience is desired Good knowledge of European flora and vegetation, vegetation ecology, limnology and / or biostratigraphy are desired Experience with quantifying long-term interactions between climate, vegetation and human land use is desired Experience in attracting third party funding and leading research projects is desired Teaching experience as well as experience with (co-)supervision of BSc and / or MSc students is desired Excellent teamwork and communication skills Flexibility and ability to work under pressure Excellent problem-solving skills Euraxess: <https://euraxess.ec.europa.eu/platforms/jobs/139/-BIO-10960> Job profile: The description associated with this job duties and requirements can be found at: <https://www.uibk.ac.at/universitaet/profile-wiss-personal/senior-scientists-doktorat-phd.html> Salary: The minimum gross salary (stipulated by collective agreement) for this position amounts to €3.804 per month (14 times). Furthermore, the university has numerous attractive offers (<https://www.uibk.ac.at/universitaet/zusatzleistungen/>).

Application: We are looking forward to receiving your online application by 02.01.2020: https://orawww.uibk.ac.at/public/-karriereportal.details?asg_id_in=10960 The University of Innsbruck strives to increase the percentage of women and thus expressly encourages women to apply. This is particularly true for leading positions and scientific job offers. In case of under-representation, women with the same qualifications will be given priority.

Questions regarding this job advertisement should be directed to Peter

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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>

INRA Rennes France SeascapeGenetics

A two-year postdoctoral position is available for a researcher with strong qualifications in population genetics/landscape genetics, at the Health and Ecosystem Unit at INRA Rennes (France). The work aims at identifying marine environment parameters which favor or impair the dispersal and gene flow between coastal population of anadromous brown trout (*Salmo trutta*) in the Channel (see details below).

Project summary : Brown trout (*Salmo trutta*) exhibits a strong individual variability in migratory tactics. Individuals can spend their whole life in freshwater, or migrate to sea for growth before returning to a river to reproduce. This plasticity confers to the species a good adaptive potential in a changing environment. This behavior is determined by genetic and environmental factors, still not fully elucidated. Trout populations from rivers of the Channel area show a strong genetic structure, but the marine form allows for gene flow between populations because homing (return to the native river) is not strict. Sea trout favor coastal areas for their feeding and movement, and these areas exhibit a strong environmental heterogeneity (substrate, temperature, sea currents...). The role of the marine landscape on the environmental determinism of migratory tactics and the functional connectivity of populations remains to be elucidated. In addition, these areas are subjected to strong anthropic pressure (fishing, pollution, industrial developments...) and alteration to the coastal areas may impact the trout's usage of the marine environment, which can in turn impact connectivity at the metapopulation level.

The postdoctoral work is part of the SAMARCH project (Salmonid Management Round the Channel, INTERREG France-Channel-England <https://samarch.org>), which aims at providing new data and information to improve salmonid populations management, especially in coastal and transitional areas, in order to minimize the effect of environmental changes. The work aims at describe and quantify the gene flow between trout populations of coastal Channel rivers in both France and England, and identify the marine environment parameters which favor or impair the dispersion (habitat functional connectivity). The analysis will be based on a new genetic database of a few hundreds of SNPs for over

60 rivers which produce sea trout in the Channel (currently in production, in collaboration with University of Exeter).

Profile and skills : PhD degree in population genetics, landscape genetics, modeling and bioinformatics skills welcome. Knowledge of salmonid ecology is a plus but not required.

Practical information : Two-year contract, starting April 2020. The position is based at the Health and Ecosystem unit (INRA/Agrocampus Ouest) in Rennes, Brittany, France. Salary is according to INRA's salary scale.

Contact : Sophie Launey (sophie.launey@inra.fr) , Erwan Quéméré (erwan.quemere@inra.fr). To apply please send CV (including 2 reference persons) and motivation letter. Interviews will start after Jan 15th , and until the position is filled

Sophie Launey UMR Ecologie et Santé des Ecosystèmes INRA - Agrocampus 65 Rue de Saint Brieu CS 84215 35042 Rennes Cedex Tel 02 23 48 52 35 Fax 02 23 48 54 40

Sophie Launey <sophie.launey@inra.fr>

KyushuU JP Integrative Evolutionary Biology

A postdoc position in the Dept. of Biology, Faculty of Science in Kyushu University

Job title: Postdoc in integrative evolutionary biology
Location: Biology department, Faculty of Science in Kyushu University 744 Motooka, Nishi-ku, Fukuoka 819-0395, Japan

Theoretical Biology group at Biology Department at Kyushu University are looking for an early career researcher to study mechanisms of environmental adaptation and evolution using integrative approaches including molecular biology, genomics, population genetics, and mathematical modeling. We are seeking a motivated and skilled postdoc to develop a new research field in integrative evolutionary biology with us.

Requirements: A Ph.D. in genomics, molecular biology, ecology, mathematical modeling, population genetics, or other closely related field. The successful candidate must possess excellent communication skills with English and a strong record of peer-reviewed publications. Expertise in molecular biology or bioinformatics is required.

The contract will initially be for one year, with the possibility of extension until the end of March 2024. The expected start date is April 1st, 2020, but is negotiable. The salary will be according to Kyushu University policies and includes social security benefits.

To apply, please send a single pdf file that includes: (1) cover letter detailing research experiences, interests, and career goals, (2) curriculum vitae, (3) up to three selected publications, and (4) contact information of two references to Professor Akiko Satake (akiko.satake@kyudai.jp). Review of applications will begin immediately and will close when the position is filled. For informal inquiries please email akiko.satake@kyudai.jp

URL: <https://www.sci.kyushu-u.ac.jp/e/departments/-bio/bio.html> Professor Akiko Satake <http://seibutsu.biology.kyushu-u.ac.jp/~satake/en/> Eriko Sasaki, Ph.D. (Tenure track Associate professor from Feb. 1st, 2020) https://scholar.google.com/citations?hl=ja&user=Iapv69AAAAAJ&view_op=list_works&sortby=pubdate Eriko Sasaki Postdoctoral Fellow

Gregor Mendel Institute of Molecular Plant Biology GmbH Dr. Bohr-Gasse 3, 1030 Vienna, Austria Phone: +43 1 79044 9904 eriko.sasaki@gmi.oew.ac.at <http://www.gmi.oew.ac.at> [cid:gmi_48f983b7-0679-4d21-99bc-bda376e5bf6b.png]

"Sasaki,Eriko" <eriko.sasaki@gmi.oew.ac.at>

LMU Munich Bioinformatics

Research Associate with Specialization in Bioinformatics

A six-year (33) research associate position is available in the Division of Evolutionary Biology at the Ludwig-Maximilians-Universität München (LMU) with a payment scale comparable to a Senior Lecturer/Reader salary in the UK.

The position. We seek an experienced, service-minded bioinformatician with a proven publication record in evolutionary genetics and related fields (comparative genomics, population genetics, experimental evolution, molecular ecology). The successful applicant will help to manage local IT resources (~10% of the time) and actively engage in ongoing research projects. In addition, the candidate may develop his or her own research ideas. The position comes with teaching duties during the semester including lecturing, course adminis-

tration and student supervision. With both the Graduate School for Evolution, Ecology and Systematics (EES <http://ees.bio.lmu.de/>) and the European Erasmus Mundus Program in Evolutionary Biology (MEME <http://www.evobio.eu/>) you will encounter an international and highly motivated group of students.

The environment. The successful candidate will be based in the lab of Jochen Wolf (http://www.evol.bio.lmu.de/-research/j_wolf/index.html) which focuses on evolutionary and ecological genetics of natural populations. The lab forms an integral part of the Division of Evolutionary Biology and takes an integrative approach to the study of evolutionary processes (<http://www.evol.biol.lmu.de/>). We apply a large range of methodology including fieldwork, population genetic modelling, large genomic approaches and experimental evolution.

Munich University (LMU) and Munich Technical University (TUM) are both recognized among Europe's premier academic and research institutions being consistently ranked among the top Universities worldwide. In particular the life science branch with its growing campus at the Southern rim of Munich offers excellent technical facilities and many interaction possibilities including the Gene Centre, 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/>) for genome-scale analyses. Munich is Bavaria's capital, a vibrant, yet relaxed city with many traditions still alive and a high quality of living.

How to apply. Applicants holding a PhD degree in a relevant field are encouraged to apply. Teaching experience is beneficial. Applications including a statement of motivation highlighting your background and bioinformatic expertise, a CV and the contact details of at least two references should be sent as a single .pdf file to evolution@biologie.uni-muenchen.de subject term 'research associate'. The position remains open until filled.

Dr. Jochen B. W. Wolf Professor of Evolutionary Biology

mail to: Division of Evolutionary Biology Faculty of Biology LMU Munich Grosshaderner Str. 2 82152 Planegg-Martinsried Germany

office phone: 49 (0)89 / 2180-74102 fax: 49 (0)89 / 2180-74104

Lab website: http://www.evol.bio.lmu.de/research/j_wolf/index.html Jochen Wolf <j.wolf@biologie.uni-muenchen.de>

LundU PartialMigration

Postdoctoral Fellow Lund University: immune function as physiological mechanism of partial migration

I am recruiting a Postdoctoral Fellow to join my research team at the Department of Biology, Lund University and to work on the causes and consequences of partial migration <https://www.biology.lu.se/arne-hegemann>. The postdoc fellow will be expected to contribute to ongoing projects investigating how immune function shapes partial migration. We are applying cutting-edge tracking technologies and fine-tuned combinations of field and lab work on two model systems, a bird species (Eurasian Blackbirds, *Turdus merula*) and a fish species (Roach, *Rutilus rutilus*). Depending on the candidate's main expertise and interest, specific projects can be tailored towards either system. Main aims of the project are to understand if and how immune function shapes migratory decisions, and how animals adjust immune function to prepare for either migration or residency. We also investigate how these physiological adjustments affect survival and reproduction. Part of the project on Blackbirds may be done in collaboration with the group of Dr. Jesko Partecke at the Max Planck Institute for Animal Behaviour.

Candidates interested in understanding the mechanisms of partial migration (and other migratory decisions), in particular related to immune function, as well as the subsequent effects on fitness are encouraged to apply. Experience with field work is highly desirable, experience with eco-immunological lab work is an advantage. The fellow is expected to design and carry out research projects, to analyze the data, and present findings through presentations and peer-reviewed publications. The fellow will also have ample opportunity to both mentor and collaborate with undergraduate and graduate students.

The start date for the position is flexible, however sometime during spring 2020 is preferred. The PostDoc will receive a scholarship (approximately 24000 SEK/month) and the position is for two years. The PostDoc will work at the Department of Biology <https://www.biology.lu.se/>, consisting of a vibrant community spanning many topics, in particular ecological and evolutionary research, including the Centre for Animal Movement Research <https://www.canmove.lu.se/>. Requirements:

- Doctoral degree in animal ecology, migration ecology, eco-physiology or related discipline.
- Experience in designing and managing field studies.
- Experience with movement ecology or eco-physiology.
- Demonstrated record of publication of peer-reviewed literature.

Additional skills:

- Experience of lab work measuring aspects of immune function is an extra plus.
- Experience with experimental design is an advantage.

To apply, please submit a single pdf including

- 1) a cover letter motivating why you want to join the project and outlining relevant experience related to the position;
- 2) CV including a publication list and contact information for 2-3 referees.

The pdf should be send to arne.hegemann@biol.lu.se no later than 15 January 2020. Informal inquiries about the position are welcome.

Contact information: Dr. Arne Hegemann, Assistant Professor, Department of Biology, Lund University, Ecology Building (Solvegatan 37), SE-223 62 Lund, Sweden, Phone: +46 46 222 37 81, Email: arne.hegemann@biol.lu.se

Arne Hegemann <arne.hegemann@biol.lu.se>

Montpellier MolecularPhenotype

at the ERC CODOVIREVOL project we aim at understanding the impact of codon usage preferences on the flow of biological information and molecular phenotypes, linked to the concerted (or not) evolution of proteome and transcriptome. We seek to hire a postdoctoral researcher for 12-24 months to perform analyses matching genomics, transcriptomic and proteomics data on the one hand with molecular and cellular phenotype on the other, using human cells as biological system. The candidate will benefit from a mature project with a large amount of already available data and many more on track using experimental evolution of human cells. The role of the selected candidate will be centered on data analysis and interpretation and article writing. We are based at Montpellier, France, at the MIVEGEC research unit headed by the Centre National de la Recherche Sci-

entifique (CNRS), the IRD and the Uni Montpellier.

Mission: Study the molecular impact and the cellular fitness cost of codon usage bias effects on transcription and translation.

Main activities - Comparative analysis of transcriptomic data, label free proteomics data, cellular cytometry, real time cellular growth. - Advanced statistical analysis, result interpretation, report writing. -If needed, methodological development. - Contribution to the conception, and follow up of competition and selection experiments. - Regular scientific article reading. - Scientific article writing. - Contribution to the scientific environment of the team. - Students training and supervision. - Contribution to the training and supervision on bioinformatic tools by other members of the team.

Skills - Strong motivation and genuine interest on evolutionary biology. - Ability to interact and to work with bioinformaticians and with experimentalists. - Bioinformatics: analysis of transcriptomic and proteomic data; proficient use of R and bash and knowledge of a scripting language; conception and establishment of robust and repeatable bioinformatics pipelines. - Evolutionary biology: the project addresses complex concepts on evolutionary biology (biological information transfer, codon usage, selection/mutation, multilevel selection, noise), as well as on cellular and molecular biology. The recruited person will be familiar with all of them. - Advanced statistical analyses. - Excellent English skills - Writing and synthesis capacity: the project is now in a moment for strong scientific production. The recruited person will have strong synthetic abilities and very good writing skills, will be able to work autonomously both in scientific conception and in implementation of analyses.

Context Position associated to the grant ERC-Consolidator CODOVIREVOL. 12 months contract, renewable for a total maximum of 24 months. Team webpage: <http://virostyle.cnrs.fr/> Salary Depending on experience, starting at around 32000€ gross annually.

Procedure Dossiers can only be submitted online at the CNRS web for job offers: <http://bit.ly/2sv9aMS> Please include in the system (not by email) a motivation letter for this specific job offer, together with the name of two persons that can be contacted for reference. Intended start date: March 2020

Ignacio G. Bravo

Directeur de Recherche Centre National de la Recherche Scientifique (CNRS)

Health, Ecology and Evolution Laboratory MIVEGEC UMR CNRS IRD UM Montpellier, France

+33 467 41 5123 ignacio dot bravo @ird dot fr

website <http://virostyle.cnrs.fr/en/team/> <https://www.mivegec.ird.fr/en/207-english/equipes-en-gb-8/-see/1512-virostyle-anglais?Itemid=523&research> (as seen in PubMed): <http://www.ncbi.nlm.nih.gov/sites/entrez?cmd=search&db=pubmed&term=bravog%5Bau%5D> “None but those who have experienced them can conceive the enticements of science” Frankenstein, Mary Shelley.

ignacio.bravo@ird.fr

NaganoU EelPopulationGenetics

Job Opportunities: Postdoctoral Researchers (temporary job) Nagano University - Nagano, Japan

Nagano University is planning to seek a few trained postdoctoral researchers (Statistician and/or Population Geneticist) to work with a team on a study about the population dynamics and fisheries management of Japanese eel (Project Head: Professor Hiroshi Hakoyama; 3 postdocs and 5 research assistants). The project is supported by the Fisheries Agency of Japan, and is going to last for at least several years. The outcome of the project is expected to contribute to discussions at FAO, IUCN and CITES and policy design and implementation on the management of Japanese eel.

Duties & Responsibilities: (1) Statistician (frequentist, time-series analysis, fisheries management, mathematical modeling): analyzing spatiotemporal multivariate time-series of fisheries and environmental data of Japanese eel in frequentist approaches; developing statistical and mathematical methods for fisheries management.

(2) Population Geneticist (SNPs, effective population size, pairwise sequentially Markovian coalescent, PSMC): developing the research design to get information about SNPs (MIG-seq and/or RAD); test of panmixia; estimating the yearly effective population size of Japanese eel; estimating demographic history by the PSMC method; developing statistical and mathematical methods for population genetics. Recently Nagano University introduced a Illumina NextSeq 550.

Moreover, all postdoctoral researchers should cooperate with each other, write papers with co-workers, participate in team discussions, assist the members of the team and the lab in all respects, and accept other duties as assigned.

Additional skills: - Experience with LaTeX is an advantage.

- Experience with a UNIX-like system (eg, *BSD) is an advantage. - Experience of wet-lab approach is an advantage.

Information - Minimum education: Ph.D. in a related field - Applications: When applying for this position, please send a CV/cover letter and letters of recommendation from the research supervisor or the department head to Hiroshi Hakoyama, hiroshi.hakoyama@nagano.ac.jp by e-mail with the title “Nagano_2020”. - Deadline to apply: Ongoing (Open until filled) - Location: 1088 Komaki, Ueda, Nagano 386-0031, Japan - Employment period: from 2020/04/01 (if possible, as soon as possible) to 2021/03/31. The employment period may be extended based on performance and availability of funding. - Regular work hours: 8:30-17:30 (Break time 12:00-13:00), Monday-Friday - Salary: 470,000 yen a month. The absence deduction will be calculated based on the amount of absence hours/days in accordance with the laws on employment. - Employee benefit: Employee must join the Japanese national social (health) insurance and pay employment insurance in accordance with laws of Japan. A part of the costs are borne by Employee and deducted from the monthly post-tax remuneration each month on payday (inquiry e-mail address: soumu@nagano.ac.jp). Nagano University will pay the cost of the LCC ticket from your country to Japan at the start of contract, and also pay the cost of the return ticket at the end of contract. Nagano University will pay the cost of a registered guarantor for your apartment.

Hiroshi Hakoyama <hiroshi-hakoyama@nagano.ac.jp>

OhioStateU MosquitoMicrobeInteractions

Postdoctoral Researcher position in mosquito-microbe interactions at Ohio State

The Short lab (www.theshortlab.org) at Ohio State University is now hiring a postdoctoral researcher to study mosquito-microbe interactions! Ongoing projects in the lab include the effect of environmental factors on mosquito microbiota formation, mosquito tolerance to infection, and the interactions between sex, mating, and pathogenic infection. The successful candidate will expand work investigating the interplay between nutrition, microbiota, and viral susceptibility in *Aedes aegypti* mosquitoes. They will also be expected to develop independent projects that build upon the laboratory's

ongoing work.

Funding is available for two years, with contract renewal for the second year dependent on satisfactory performance. Renewal beyond the second year is possible but contingent on funding.

The Short lab is in the department of Entomology (<https://entomology.osu.edu/home>) and is also a member of the Infectious Diseases Institute (<https://idi.osu.edu/>), comprising a rich and highly stimulating intellectual environment. Research in the Short lab at OSU is facilitated by many available resources, including a BSL-2/ACL-2+ insect rearing/infection laboratory, access to multiple core labs (microscopy, molecular biology, genomics), and a shared BSL-3/ACL-3 infection facility. The lab is located on the main campus in Columbus, Ohio, USA.

The successful candidate must show a strong record of publication and success in research. Preference will be given to candidates who have experience working with arboviruses (e.g. viral culture, in vivo or in vitro viral experiments, viral quantification) and have experience performing organismal, molecular and/or bioinformatics experiments in insect systems.

Interested parties should contact Dr. Sarah Short (short.343@osu.edu) and provide the following:

1. Curriculum Vitae
2. Research statement (description of current work and your interest in the lab)
3. Names and contact information for three references

“Short, Sarah M.” <short.343@osu.edu>

OIST Okinawa 2 EvolutionCellBiologySymbiosis

Two Postdoctoral Researcher Positions Evolution, Cell Biology, and Symbiosis Unit (PI: Filip Husnik) Okinawa Institute of Science and Technology Graduate University, Okinawa, Japan

The Okinawa Institute of Science and Technology Graduate University (OIST; see www.oist.jp) is a dynamic new graduate university of science and technology in Okinawa Prefecture, Japan. The university is located on 85 hectares of protected forestland overlooking beautiful shoreline and coral reefs. The campus is striking architecturally, and the facilities are outstanding. There are no academic departments, which facilitates multidisciplinary research. Outstanding resources and equipment

are provided and managed to encourage easy access and collaboration. English is the official language of the University, and the university research community is fully international, with more than 50 countries represented. OIST is rapidly gaining recognition in the worldwide academic community as a model for excellence in education and research.

The newly established Evolution, Cell Biology, and Symbiosis Unit is broadly interested in three main research topics: (1) Endosymbiotic bacteria of protists and insects becoming highly integrated into their host cells (i.e. organelles). (2) The origin and evolution of mitochondria and the eukaryotic cell. (3) Marine microbiology and symbioses.

The two recruited postdoctoral researchers will (based on their experience and interests) use selected multidisciplinary methods spanning field work, laboratory work, and computer work to address fundamental questions of the three research topics above.

Qualifications: (Required) 1. PhD degree (in Biology, Chemistry, Computer Science, or any other discipline relevant to the project topic). 2. Proficiency in spoken and written English.

Qualifications: (Preferred) 1. Own ideas complementing the research direction and enthusiasm to learn new approaches. 2. Prior experience with Unix-based operating systems and at least one programming language (Python, R, etc.) and/or with some laboratory methods (cell biology, genomics, proteomics, metabolomics, microbiology, biochemistry, etc.). 3. Interest in both laboratory and computational work with 'non-model' organisms (protists, scale insects, and symbiotic bacteria) and in learning methods relevant for studying these systems such as super-resolution microscopy, SBF-SEM, FIB-SEM, Cryo-TEM tomography, genetic manipulations (transformation, gene tagging, knock in/out, RNAi, CRISPR-Cas9, etc.), microfluidics, single-cell approaches, micromanipulation and microinjection techniques, etc.

Starting Date: April 1, 2020 (flexible, but preferably not later than September 2020) Term: Full-time, fixed term appointment for 2 years. Contract initially with a 3-month probationary period (inclusive). This contract may be renewed up to total of 3 years.

Compensation & Benefits: Compensation in accordance with the OIST Employee Compensation Regulations Benefits: - Relocation, housing and commuting allowances - Annual paid leave and summer holidays - Health insurance (Private School Mutual Aid <http://www.shigakukyosai.jp/>) - Welfare pension insurance (kousei-nenkin) - Worker's accident compensation insur-

ance (roudousha-saigai-hoshou- hoken)

How to Apply: Apply by emailing your Submission Documents to: [filip.husnik\[at\]oist.jp](mailto:filip.husnik@oist.jp) (Please replace [at] with @ before using this email address)

Submission Documents: - Cover letter* in English (explaining why you are interested in this position and my group) - Curriculum vitae in English - Names and contact information of 2-3 referees, one of which should be a previous employer * Please be sure to indicate where you first saw the job advertisement.

Application Due Date: February 15 or until filled (applications will be screened upon arrival)

- OIST Graduate University is an equal opportunity, affirmative action educator and employer and is committed to increasing the diversity of its faculty, students and staff. The University strongly encourages women and minority candidates to apply. - Information provided by applicants or references will be kept confidential, documents will not be returned. All applicants will be notified regarding the status of their applications. - Please view our policy for rules on external professional activities (<https://groups.oist.jp/acd/information-disclosure/>).

Further details about the University can be viewed on our website (www.oist.jp), including details about living in Okinawa (<https://groups.oist.jp/resource-center>) and the benefit package for postdoctoral researchers (<https://groups.oist.jp/pcda/why-oist>).

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Portugal MetaGenomics

We are currently accepting applications to fill a 24 months contract for a PhD researcher under the project “ENVMETAGENOMICS ”eDNA: from rare species detection to whole-community diversity using high-throughput sequencing“.

Preferred candidates must possess a PhD, 3 or more years of post-doctoral experience, and:

a) Demonstrated scientific and/or professional experience in the area of Bioinformatics or Comparative Genomics.

b) The candidate must also have experience in the analysis of next-generation sequencing data (genomics and/or transcriptomics), preferentially of eukaryotes, with expertise in bash, R, Python or other relevant programming language.

c) Wet laboratory experience in molecular genetics will be considered a plus.

d) Knowledge of Iberian freshwater ichthyofauna will be considered a plus.

For more details about this call, please use the following link: <http://www.eracareers.pt/opportunities/-index.aspx?task=global&jobId=121727> *Application deadline: 10 December 2019*

– Ana Veríssimo, PhD Researcher

CIBIO - Research Centre in Biodiversity and Genetic Resources Campus Agrário de Vairão, Rua Padre Armando Quintas 4485-661 Vairão, Portugal

<http://orcid.org/0000-0003-3396-9822> Ana Verissimo <verissimoac@gmail.com>

Postdoc:UChicago Viral Immune Evolution

The Cobey Lab is currently seeking computational postdocs and research scientists to study the development of protective antibody responses to influenza, the antigenic evolution of influenza viruses, universal vaccines and vaccination strategies, and their intersection. Researchers can work closely with our collaborators in immunology, virology, and epidemiology in developing statistical models to investigate these dynamics. There are several projects available and exciting opportunities to develop new methods and theory. The projects span molecular evolution of proteins and cell populations to statistical infectious disease modeling. Funding comes from a R01 to study influenza dynamics in childhood and two initiatives to develop new universal influenza vaccines (a Gates Grand Challenge award and a NIH-funded Collaborative Influenza Vaccine Innovation Center).

Successful applicants will have strong quantitative skills and an established record of productive research. They will have a PhD in a relevant field (e.g., applied math, computer science, ecology and evolution, epidemiology, physics, statistics) or will be on track to obtain one before joining the lab. They must have strong written and oral communication skills and commitment to working

as part of a constructive, productive, multidisciplinary team.

Members of underrepresented groups are encouraged to apply. Partially remote working arrangements are also possible.

To apply for a postdoctoral position, please email a cover letter, CV, contact information for three references, and two or three relevant publications/preprints to Sarah Cobey at cobey@uchicago.edu. In the cover letter, please describe the problems that interest you.

To apply for a longer-term position as a research scientist/programmer, please apply as a Computational Research Scientist or as a Senior Computational Research Scientist if you would prefer more management responsibilities. Please see <https://cobeylab.uchicago.edu/p/-join-us> for more information. The linked ads mostly contain stock language over which I have little control (I can only edit “Unit-preferred competencies” and “About the unit”). Basically, they are research-focused positions tailored around our mutual interests. “Related experience in scientific research” includes any undergraduate research training.

People who do not currently have a PhD or are unsure about their qualifications are welcome to contact me.

Application review will continue until the positions are filled.

Sarah Cobey, PhD Associate Professor Ecology & Evolution University of Chicago

cobeylab.uchicago.edu

RutgersU PopulationGenomics

Postdoc in population genomics and global change at Rutgers University

Review will start 16 December 2019

A three-year postdoctoral position is available in the Global Change Ecology & Evolution Lab at Rutgers University. The postdoc will join a NSF PIRE-funded project to study micro-evolutionary responses to a century of habitat degradation and intensive exploitation in Southeast Asia. The project is using DNA sequencing from a unique historical collection of coastal marine fishes in the Philippines from the R/V Albatross expedition (1907-1909), complemented with modern recollections of the same species and locations. The post-

doc will join a team of researchers that includes Kent Carpenter and Dan Barshis (Old Dominion University), Chris Bird (Texas A&M), Beth Polidoro (Arizona State), Robin Waples (NOAA), Jeff Williams (Smithsonian), Angel Alcalá (Silliman U.), and others.

The postdoc will lead analyses of multiple population genomic datasets through time, including changes in diversity and signatures of selection, compare impacts and changes across species, and conduct trait-based analyses to understand characteristics of populations more or less prone to genetic bottlenecks. The postdoc will also contribute to summer population genomic workshops in the Philippines. Extensive opportunities for collaboration across the multi-institutional team, across Rutgers, and in the region are available, including within the Rutgers Genome Cooperative, the Institute of Earth, Ocean, and Atmospheric Sciences, and the Genetics Department. The postdoc will have the opportunity to mentor undergraduate and graduate students.

The position is ideally suited to quantitative researchers with a strong background in population genomics, bioinformatics, data science, and global change. No experience in marine biology required, though experience with population genomic modeling, Approximate Bayesian Computation, database management, and/or hierarchical modeling is a plus. Applicants with evidence of creativity, productivity, strong oral and written communication abilities, and enthusiasm are especially encouraged to apply, particularly those that bring a new perspective, new ideas, or a new skillset to the team. A promising record of publication is valued. The successful applicant will be an independent, motivated problem solver who communicates well and enjoys working in a collaborative setting.

****Position details**** The postdoc start dates are flexible, with preferred dates between May and October 2020. Salary starts at \$50,000 per year and includes health insurance, retirement, tax savings plans, and other benefits. Funding for conferences and a computer are available. This is a one-year appointment with the expectation that it will be renewed twice (three years total), contingent upon satisfactory performance. Applicants must have a PhD at the time of employment.

****Application process**** Review of applications will begin on December 16, 2019 and will continue on a rolling basis. Interested candidates should email to malin.pinsky@rutgers.edu: 1) a one-page cover letter that describes their interest in the position and their relevant background, 2) a CV, and 3) the names and contact information for three scientists familiar with their work.

****Rutgers, The State University of New Jersey**** Rutgers is situated in New Jersey at a crossroads of Amer-

ican innovation, commerce, and culture and with a history entwined with that of the nation. Chartered in 1766, the university is the only one in the United States that is, at once, a colonial college, a land-grant institution, and a state university. Located within an easy drive of New York City, there are nonetheless an exceptionally wide array of marine, freshwater, and terrestrial ecosystems nearby, from the continental shelf and estuaries to barrier islands, coastal plains, the piedmont, Precambrian highlands, and ridge and valley geological provinces. Ecology & evolution at Rutgers consists of approximately 60 faculty and 50 graduate students pursuing research and training in conservation biology, ecosystem ecology, evolutionary biology, marine biology, microbial ecology, population and community ecology, population genetics, and restoration ecology.

Malin Pinsky Associate Professor Global Change Ecology & Evolution Lab Department of Ecology, Evolution, and Natural Resources Institute of Earth, Ocean, and Atmospheric Sciences Rutgers University New Brunswick, NJ 08901 USA

<http://pinsky.marine.rutgers.edu>

malin.pinsky@rutgers.edu

malin.pinsky@gmail.com

SenckenbergNatureResSoc Biodiveristy

Job announcement - ref. #04-19008

The Senckenberg Nature Research Society (SGN), an institution of the Leibniz Association with almost 800 employees, operates six research institutes located in seven federal states. SGN also assists the UNESCO World Heritage Site "Grube Messel".

The Department of River Ecology and Conservation at Senckenberg (Gelnhausen) in cooperation with the Faculty of Biology at the University of Duisburg-Essen jointly invite application for a

Postdoctoral Researcher (Ecologist) (m/f/d) (full time)

The position is embedded in the International Long-Term Ecological Research (ILTER) network and the European Long-Term Ecosystem, critical zone and socio-ecological Research Infrastructure (eLTER RI). The eLTER RI will comprise about 200 eLTER Sites from over 20 participating European countries. It will provide access to a wide range of long-term biodiversity

and environmental data. eLTER RI will enable standard observations and analyses of the environment in a holistic manner, encompassing biological, geological, hydrological and socio-ecological perspectives.

The European Commission has recently approved two major, complementary Horizon2020 projects: eLTER PLUS (Advanced Community) and eLTER PPP (Preparatory Phase). The projects will provide a major boost to scientific work at selected eLTER sites across Europe and thereby catalyze eLTER RI development. Both projects will start in February 2020 and will last five years.

The research done by the candidate should focus on identifying patterns, drivers and indicators of short-term variability and long-term trends in biodiversity. We will provide access to large long-term eLTER RI biodiversity and environmental datasets covering various terrestrial, freshwater and marine taxa groups. We encourage applications from both terrestrial and/or freshwater ecologists.

Your tasks

Contribute to the research of the eLTER PLUS project
Conduct additional research on global change impacts on biodiversity within the framework of further projects of the department (i.e. restoration ecology, multiple stressor analyses, long-term ecological research)
Data analysis, preparation of manuscripts and reports
Involvement in national and international projects, including the support of the ILTER science chair
Mentoring graduate students

Your profile

PhD in Ecology or a related field
Solid background in (macro-) ecology and zoology (preferably invertebrates)
Advanced skills in statistical analyses of large ecological datasets, preferably using R
Strong track record of international publications
Excellent written and oral communication and project presentation skills

What is awaiting you?

Salary and benefits are according to a public service position in Germany (TV-H E 13, 100%). The contract should start around April 1st, 2020 and is initially restricted to 2 years with a possible extension.

The Senckenberg Research Institute supports equal opportunity of men and women and therefore strongly invites women to apply. Equally qualified handicapped applicants will be given preference. The place of employment is in Gelnhausen (Hesse), Germany. The employer is the Senckenberg Gesellschaft für Naturforschung.

You would like to apply?

Please send your complete application documents until January 22nd, 2020 by e-mail (attachment in a single pdf document), mentioning the reference number of this position (ref. #04-19008) and include

- a letter outlining your suitability and motivation for the post - a detailed CV copies of your academic certificates and transcripts contact details of 2 references a list of publications and funding to:

Senckenberg Gesellschaft für Naturforschung

Senckenberganlage 25

60325 Frankfurt

E-mail: recruiting@senckenberg.de

For scientific enquiries please get in contact with Prof. Dr. Peter Haase, peter.haase@senckenberg.de .

Thank you for your consideration.

Mit freundlichen Grüßen / Sincerely yours

Isabel Gajcevic, M.A.

Personalsachbearbeiterin

SENCKENBERG

Gesellschaft für Naturforschung (Rechtsfähiger Verein gemäß § 22 BGB) Senckenberganlage 25 60325 Frankfurt am Main

Besucheradresse: Mertonstraße 17-19, 60325 Frankfurt am Main (1. OG)

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

Leiterin Personal & Soziales

- 1458 Loke, Uta

Stellv. Leiterin Gruppe Personal & Soziales

- 1319 Elsen, Carina

Mitarbeiter/in Personalbeschaffung (Recruiting)

- 1564 di Biase, Maria

- 1313 Helm, Jessica

- 1478 Gajcevic, Isabel

Fax: 0049 (0)69/ 7542-1467 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)

Senckenberg forscht für Ihr Leben gern!
www.200jahresenckenberg.de

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SmithCollege MarineMicrobialDiversity

*Combining single-cell and community 'omics' to test hypotheses about *

diversity and function of planktonic ciliates. We are reopening the search for a full-time postdoctoral research position focusing on the biodiversity of ciliates and other 'SAR' (Stramenopila + Alveolata + Rhizaria) lineages in marine settings. The initial appointment is for one year, with the possibility of extending for additional years. The position will be housed in Laura Katz's laboratory < <http://www.science.smith.edu/katz-lab/> > in the Department of Biological Sciences questions should be directed to lkatz@smith.edu.

The goals of the project are to: assess species boundaries (i.e. reproductive isolation); characterize transitions of closely-related ciliates across ecological gradients in the ocean; and determine functional differences within and between species through analyses of transcriptomics. The project is part of a long-term collaboration with George McManus < <https://marinesciences.uconn.edu/-faculty/mcmanus/> > at the University of Connecticut.

To apply, submit < <http://apply.interfolio.com/66890> > a letter of application, C.V., a statement of research interests, representative publications, and the names and contact information of three references.

Research in the Katz lab aims to elucidate principles of the evolution in eukaryotes through analyses of microbial groups, and to assess how these principles apply (or fail to apply) to other organisms. Currently we focus on three interrelated areas: (1) characterizing evolutionary relationships among eukaryotes using single-cell 'omics' and phylogenomics; (2) Exploring the evolution of germline v s somatic genomes; and (3) describing the phylogeography and biodiversity of protists in local environments (bogs, fens, coastal habitats).

Smith College < <https://www.smith.edu/> > is a member of the Five College Consortium < <https://www.fivecolleges.edu/> > with Amherst, Hampshire, and Mount Holyoke Colleges and the University of Mas-

sachusetts Amherst.

Diversity and a culture of equity and inclusion among students, staff, faculty, and administration are crucial to the mission and values of Smith College. We are an Affirmative Action/Equal Opportunity employer and do not discriminate on the basis of race, gender, age, color, religion, national origin, disability, sexual orientation, gender identity and expression or veteran status in the recruitment and employment of faculty and staff, and the operation of any of its programs and activities, as specified by all applicable laws and regulations. Women, historically underrepresented minorities, veterans, and individuals with disabilities are encouraged to apply.

Application Instructions To apply, go to <http://apply.interfolio.com/66890>. Review of applications is ongoing.

Laura A. Katz, Elsie Damon Simonds Professor <<http://www.science.smith.edu/departments/Biology/lkatz/>> Editor in Chief, Genome Biology and Evolution <<https://academic.oup.com/gbe>>

Department of Biological Sciences Burton Hall 201 / 44 College Lane Smith College Northampton, MA 01063 Ph: 413-585-3825 Skype: laura_a_katz Looking to make an appointment? Sign out a grey box here <<http://www.science.smith.edu/departments/Biology/lkatz/appointments>>:

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Laura Katz <lkatz@smith.edu>

SouthAfrica AquaticBiodiversity

A post-doctoral fellowship is available at the South African Institute for Aquatic Biodiversity (SAIAB) for a suitable candidate to investigate:

(1)the potential of environmental DNA to collect population and community level data for subtidal fishes occurring on photic and mesophotic reefs, and

(2)other non-invasive in situ sampling techniques to collect genetic material from reef fishes for individual or population level molecular analysis. The project is fully funded and the fellow will join the team working on population genetics, reef ecology and conservation at the SAIAB. The position is available for a period of two years, and the fellowship will involve independent research (within the context of the main project), collaboration with project scientists and co-supervision of

MSc and PhD students.

Minimum requirements:

?? Completed PhD in subtidal reef fish ecology or molecular ecology.

?? Applicants with a background in eDNA, molecular biology and ecology and with strong analytical skills will be favoured.

?? The applicants must have a strong publication record, in line with their level of experience, in relevant fields of research.

?? The applicants will need to demonstrate competency in planning and conducting fieldwork off small research vessels.

?? Applications are open to suitable candidates from any nationality.

If you are interested in applying, please submit a cover letter, detailing your relevant experience and research interests, your CV, and the contact details of two referees, one of whom must be your most recent supervisor/mentor to Dr Gwyneth Matcher (g.matcher@saiab.ac.za), Dr Gavin Gouws (g.gouws@saiab.ac.za) and Dr Anthony Bernard (a.bernard@saiab.ac.za). Applications open immediately and will close on the 31 January 2020.

Please let me know if you need any further details.

All the best,

Ant

Somerset Street

Anthony Bernard

Makhanda, 6139 Instrument Scientist Private Bag 1015
Tel: 27 46 603 5842

Makhanda, 6140 Fax: 27 46 603 5825

South Africa Email: A.Bernard@saiab.ac.za

<http://www.saiab.ac.za/> Disclaimer: <http://www.nrf.ac.za/email-legal-notice.php> Please consider the environment before printing this message.

Anthony Bernard <A.Bernard@saiab.ac.za>

Tampa Florida Evolutionary Dynamics

Postdoctoral Fellow - Mathematical oncology and cellular immunotherapy

The Evolutionary Dynamics group, headed by Dr. Philipp Altrock at the Department of Integrated Mathematical Oncology, is seeking to hire a postdoctoral fellow to complement an interdisciplinary research team at Moffitt Cancer Center. Our projects offer unique opportunities for interdisciplinary collaborations at the forefront of finding new cancer cures. We currently work on single-cell methods to characterize and model cancer progression, on tumor ecology, and on models of cellular immunotherapy-all based on clinical data.

Position Highlights: - Perform basic and applied research, applying mathematical, statistical and computational methods to cancer biology and clinical data - Advance the toolbox of mathematical oncology, quantitative medicine and epidemiology - Establish and strengthen collaboration in a multidisciplinary research setting to improve predictive models for patient specific cancer detection and treatment.

The Ideal Candidate: - Experience in team science, work in interdisciplinary contexts - Proven ability of independent research (via publications) - Strong communication skills (national/international research presentations/posters) - Mastery of at least one high-level (scientific) programming language (C, R, Mathematica, matlab, Julia, python) - Ability and desire to interact and collaborate with clinician scientists

Responsibilities: - Communicate clearly and openly, present research results on local and national platforms - Perform independent research - Meet with team leader and members frequently - Build relationships across research disciplines to promote a collaborative research environment

Credentials and Qualifications: - PhD degree in mathematics, computer science or physics with an interest in biology and medicine, or in biology or bioengineering with a focus in quantitative modeling. - One first author paper - Experience with scientific programming, data analyses and data visualization - Experience in applying mathematical modeling applied to biological and/or clinical questions, or similarly applied scientific contexts

Our Department of Integrated Mathematical Oncology (IMO) consists of 8 internationally renowned cancer researchers and mathematical modelers. The focus of all IMO research groups is to apply physical, mathematical and computational principles to cancer biology, to decipher mechanisms of tumor growth, treatment and progression. Moffitt Cancer Center and Research Institute, in Tampa, is Florida's largest cancer center, located on the campus of the University of South Florida, near beautiful beaches in the Gulf of Mexico.

How to Apply: Interested applicants should include a single PDF file that includes a cover letter summarizing their research training and accomplishments, a personal statement of scientific interests and goals, current CV with recent publications, and contact information for three references for Dr. Philipp Altrock to review, philipp.altrock@moffitt.org.

Maritza Saavedra Research Faculty and Postdoc Recruiter Moffitt Cancer Center 12902 Magnolia Drive, Tampa, FL 33612|mailstop:MBC-HR | tel:813-745-1424| fax: 813-745-7827 |email: mailto:Maritza.Garcia-Saavedra@moffitt.org

“Garcia-Saavedra, Maritza V” <Maritza.Garcia-Saavedra@moffitt.org>

Tel-AvivU Evolutionary Theory

Wanted: Ph.D. student or postdoctoral fellow with background in population genetics / computational biology / statistics / machine learning for an *ERC-funded project at Stern Lab* (Life Sciences, Tel Aviv University, <https://www.sternadi.com>) in collaboration with Ram Lab (Computer Science, IDC Herzliya, <https://www.yoavram.com/>). The project involves designing, implementing, and testing a new statistical inference approach for evolutionary experiments of various RNA viruses. The method will use *evolutionary simulations and cutting-edge* *deep learning* *algorithms*. Potential candidates should email Dr. Adi Stern (sternadi@tau.ac.il) and Dr. Yoav Ram (yoav@yoavram.com) with CV (including publication list), letter of interest specifying their background and scientific interests, and contacts for at least two recommendations. Position is open effective immediately and duration is flexible.

Adi Stern <sternadi1@gmail.com>

TexasAMU FishEvolution

Title: Postdoctoral Research Associate in Fisheries and Aquaculture Genetics

Salary: \$42,000

Description: 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 Postdoctoral Research Associate in Fisheries and Aquaculture Genetics. The candidate is expected to work independently and will be in charge of two currently funded projects aimed at characterizing sex determining-loci in several species of bony fish and designing a genotyping-by-thousands panel for monitoring hatchery output. In addition, the individual will contribute to research on commercial aquaculture of eastern oysters. This position involves generating RAD-seq DNA libraries, isolating and characterizing SNPs -containing loci and bioinformatic processing of genomic data and preference will be given to those with experience in genomics.

Responsibilities:

- * Generate RAD-seq DNA libraries. * -Screen Illumina-generated DNA fragments for SNPs and analyzes data.
- * -Prepare manuscripts for publications in peer-reviewed, scientific journals. Includes keeping current with appropriate literature. * -Participate in writing proposals to funding sources. * -Perform other duties as required.
- * -Attend scientific meetings to disseminate research results.

Qualifications:

- * Doctorate in Biological Sciences * Relevant publication record * Experience with management of large data sets * Strong statistical and computational background
- * Familiarity with appropriate laboratory or technical equipment * Intermediate MS Office skills * Ability to effectively utilize a computer and applicable software to create databases, perform statistical analyses, present data and perform other computer related tasks * Ability to work with nucleic acids and analyze molecular data * Ability to multi-task and work cooperatively with others

Preferred Qualifications: Experience with genomic techniques Experience writing scripts for R and or programming

Apply at: <https://tamus.wd1.myworkdayjobs.com/>

[en-US/TAMUCC_External/job/Corpus-Christi-TAMUCC/Postdoctoral-Research-Associate_R-026054](https://tamus.wd1.myworkdayjobs.com/en-US/TAMUCC_External/job/Corpus-Christi-TAMUCC/Postdoctoral-Research-Associate_R-026054)

Contact Dr. David Portnoy at david.portnoy@tamucc.edu with questions.

David S Portnoy

Associate Professor Ruth A. Campbell Professor of Marine Biology Texas A&M University Corpus Christi 6300 Ocean Dr. Unit 5892 Corpus Christi, TX 78412 (361)-825-2859

“Portnoy, David” <David.Portnoy@tamucc.edu>

TUMunich PopulationGenomicsPlantPathogens

The Chair of Phytopathology at the Technical University of Munich, TUM School of Life Sciences, hires a Postdoc in the field of Population genomics of pathogens on wild tomato species.

We are interested in understanding the diversity and evolution of pathogens and pathogen resistance in relatively short time scales, therefore we study different populations from a diverse and geographically differentiated tomato species, *Solanum chilense*. We have shown that these populations show different levels of defence against a range of pathogens. For this project we have collected hundreds of strains of of the naturally occurring pathogens (*Alternaria* spp.) from *S. chilense* plants throughout the species range in Chile and Peru.

We are now looking for an enthusiastic Postdoc to assess genetic diversity using whole genome sequencing (ONT) to study adaptation of the pathogen to the different host populations. The applicant must have a PhD in biology, bioinformatics or related disciplines. Knowledge and practical experience with ONT data, bioinformatics and population genetics are required.

The project will be carried out in the group of Dr. Remco Stam at the Chair of Phytopathology (Prof. Dr. Ralph Hüchelhoven). The chair hosts several research groups studying biology of plant pathogens. In addition, we have several ongoing collaborations on campus (including the large SFB924 project) and direct access to state of the art technology for next generation sequencing, diverse molecular biology techniques and extensive glass house facilities.

The Technical University of Munich wishes to increase the percentage of employed women. Women are there-

fore explicitly encouraged to apply. Handicapped persons with equivalent qualification will be given preference. The salary is according to German income level TV-L E13. The position is for 16 months, with the possibility to extend.

Please send your comprehensive application including a letter of motivation (1 page), your CV, certificates, list of publications, and names of 2 potential referees as a single pdf file by email to: stam@wzw.tum.de Informal inquiries about the position can be addressed to Dr. Remco Stam directly as well.

The position is to be filled as soon as possible. Reviewing of applications will start 6 January 2020

“stam@wzw.tum.de” <stam@wzw.tum.de>

UAuckland BacterialGenomeEvolution

Postdoctoral Research Fellow Position in Bacterial Genome Evolution at the University of Auckland, New Zealand

We are seeking a postdoc to work on a project investigating coevolution between prokaryotes and mobile genetic elements (MGEs) such as viruses and plasmids. The successful candidate will work on either the computational modelling of bacterial genome evolution or bioinformatic sequence analysis of bacterial genomes (or both if desired).

The aim of the project is to test the hypothesis that evolutionary conflict between prokaryotes and MGEs substantially impacts the distribution of genes and the dynamics of horizontal gene transfer in prokaryotes. This impact is thought to arise from the interplay of the two types of interaction between prokaryotes and MGEs: ecological interaction, where MGEs serve as selfish elements that exploit prokaryotes, creating host-parasite conflict; and genetic interaction, where MGEs serve as vectors that mediate horizontal gene transfer in prokaryotes, increasing gene mobility. By considering both types of interaction, the project will develop a theory of prokaryote genome evolution. The project will consist of two parts: modelling part, where we develop computational models of prokaryote genome evolution; and bioinformatics part, where we analyse prokaryotic genome sequences to inform and validate the modelling. The successful candidate will work on either (or both if desired) of these parts, depending on expertise and

interest. The candidate will also have the opportunity to design their own research related to the evolution of prokaryotes. The opportunity to gain teaching experience, such as lecturing and supervising, is also available if desired.

The successful candidate will work with Nobuto Takeuchi at Bioinformatics Institute, the School of Biological Sciences, the University of Auckland, New Zealand. Our lab is lunched in October 2018 and interested in the evolution of biological complexity. For Takeuchi’s CV, please see <https://researchmap.jp/-takeuchi.nobuto>. The University of Auckland is New Zealand’s top-ranked national university. The School of Biological Sciences has a diverse research portfolio, including molecular biology, microbial genomics, experimental evolution, and computational biology. The University offers an advantageous environment for computational biology research by providing access to state-of-the-art computational facilities (Cray CS400 8136 cores, Cray XC50 18560 cores) maintained by New Zealand eScience Infrastructure. Please see also information provided at the following web pages: <https://www.auckland.ac.nz/en/about-us/about-the-university.html> (University); <https://www.auckland.ac.nz/en/science/about-the-faculty/school-of-biological-sciences.html> (School)

Auckland is the largest and demographically most diverse city in New Zealand. Auckland has been ranked as top 4 cities in Mercer’s Quality of Living City Ranking consecutively in the last 10 years. Auckland is positioned on a natural harbour with many marinas, and it offers easy access to many beaches, islands, forests, and mountains.

The position is funded for two years. Anticipated start date is April 2020, but an earlier or later start date (until November 2020) can be accommodated. The salary is based on the Academic Staff Collective Agreement of the University of Auckland (<https://-uoacollectiveagreements.blogs.auckland.ac.nz>), and the annual gross salary for a research fellow (RF1) in 2020 is NZ\$81,963.

The successful candidate will have a PhD in computational biology, bioinformatics, theoretical biology, physics, computer science, or a related field at the start of the appointment, experience in research involving either bioinformatics or the modelling of evolutionary dynamics (or both), and programming skills (scripting language for bioinformatics or high-performance language for computational modelling).

To apply, please email the following documents as PDF (combined or separate) to Nobuto Takeuchi at nobuto.takeuchi@auckland.ac.nz by January 31, 2020:

1) a cover letter of 1-2 pages describing your background relevant to the position 2) a CV with a publication list 3) a research statement of 1-2 pages 3) the names and contact information of two scientists familiar with your work who can act as referees 4) one published or accepted original research article to which you made a major contribution and which best represents your research

For questions about this position, please contact Nobuto Takeuchi at nobuto.takeuchi@auckland.ac.nz.

takeuchi.nobuto@gmail.com

UBritishColumbia BiodiversityBioinformatics

The UBC Biodiversity Research Centre is made up of over 70 faculty members with interests in ecology, evolution, systematics, biodiversity and conservation. We invite applications for highly motivated postdoctoral fellows interested in bioinformatic topics related to biodiversity. Preference will be given to candidates with bold ideas, demonstrated research ability, and strong communication skills. The successful candidate will be expected to conduct original research on core problems in biodiversity, foster interactions within the Centre, run an annual bioinformatics workshop and develop an associated webpage with bioinformatic best practices. Postdoctoral fellows funded by the Biodiversity Research Centre typically interact with several lab groups. Candidates are welcome to contact potential collaborating labs in the Centre to inquire about current and potential research activities, but it is not necessary to apply to work with a specific faculty member.

***Starting date*:** 1 September 2020 ***Salary*:** \$50,000 per year and benefits (including extended health and dental coverage) ***Research funds*:** \$7,000 per year, with the option to convert this to salary ***Necessary qualifications*:** Candidates must have obtained, or expect to complete, their doctoral degree no later than September 2020, and be able to demonstrate a solid scientific background as evidenced by publication record and research statement.

***To apply, please provide*:** brief cover letter, curriculum vitae, 1-2 page research statement of overall scientific goals and interests, and the names and contact information for three referees. The research statement is free form but we should be able to determine both the

general interests and specific projects that the candidate will engage in over the postdoc period.

***Candidates*:** submit your application online at the UBC Careers webpage: www.facultycareers.ubc.ca/-36225 ***Application closing date*:** February 10, 2020. All materials must be received by February 10, 2020 to ensure full consideration.

Equity and diversity are essential to academic excellence. An open and diverse community fosters the inclusion of voices that have been underrepresented or discouraged. We encourage applications from members of groups that have been marginalized on any grounds enumerated under the B.C. Human Rights Code, including sex, sexual orientation, gender identity or expression, racialization, disability, political belief, religion, marital or family status, age, and/or status as a First Nation, Metis, Inuit, or Indigenous person.

Judith Mank Professor and Canada 150 Chair in Evolutionary Genomics Department of Zoology and Biodiversity Research Centre University of British Columbia

<http://www.zoology.ubc.ca/mank-lab/>
"mank@zoology.ubc.ca" <mank@zoology.ubc.ca>

UCalifornia LosAngeles BiodiversityInformatic

Postdoc in Biodiversity Informatics

I am seeking a Postdoc in Biodiversity Informatics to develop new open source scientific software to make specimen-based data (phenotypic, genomic, spatial) easily accessible and ready to use in taxonomy and other downstream studies. This will make specimen-based research transparent, explicit, reproducible, and extensible. The postdoc will develop a computational workflow to integrate data and analyses via modular pipelines, automatize "data wrangling", generate data-driven interfaces to interact with "big data", and create dynamic/reactive documents native to the Web. This is a great opportunity to work in a small research group that uses computational biology to support research and training in quantitative taxonomy and evolutionary biology.

The ideal candidate will be comfortable with databases (relational or graph) and experienced in writing efficient code and documentation in at least one commonly used programming language (Python, R, Julia, Ruby, C/C++, etc). The BIR will be familiar with standard

practices in scientific computing and software engineering including version control, continuous integration, test-driven development, and a focus on minimum viable products.

The postdoc will be part of a research group in the Department of Ecology & Evolutionary Biology at the University of California, Los Angeles. The postdoc will work and report to the principal investigator and other team members, participate in the organization and management of data sets, and ensure the integrity of complex data sets.

Qualifications:

Required:

- PhD in related area (bioinformatics, biodiversity, ecology evolution systematics) - At least 2 years of related Software Development in Biodiversity Informatics experience - Strong background in databases - Programming and scripting experience (e.g. bash, Python, R, Julia, Ruby, C/C++) - Experience with version control technology such as Git - Experience with continuous integration technology such as Travis CI - Excellent verbal, written, and interpersonal communication skills

Preferred:

Experience using HPC and parallel systems Experience with Machine Learning Experience with JavaScript Experience creating technical documentation Experience with cloud technologies including: AWS, Docker, CyVerse

Application:

Please send a cover letter describing your qualifications and interest, and your updated CV. Make sure to include links to your repositories (e.g. GitHub, GitLab, BitBucket). Include the names and contact information (email) of 2 references.

If you have any questions and to apply to the position, please email fzapata@ucla.edu with the subject line Postdoc in Biodiversity Informatics. The position will start as soon as possible and will remain open until filled.

Job Location:

Los Angeles, CA

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: UC Nondiscrimination & Affirmative

Action Policy. (<http://policy.ucop.edu/doc/4000376/-NondiscrimAffirmAct>)

Felipe Zapata <fzapata@ucla.edu>

UCL London MicrobialGenomics

Bioinformatics / Computational Genetics UCL Genetics Institute / Division of Infection and Immunity; London Full Time; funded until 31 August 2021 in the first instance Closing date: 12 Jan 2020

The—UCL—Genetics Institute (UGI), and the Division of Infection and Immunity, are seeking to recruit a bioinformatician / Computational Geneticist within the NIHR funded initiative, Precision AMR.

The aim of the project is to leverage genomic data to infer transmission (i.e. 'who infected whom') and develop diagnostic tests for antimicrobial resistance (AMR) linked to patient records in order to achieve faster, better management of infection within clinical settings.

Precision AMR is a dynamic research partnership which brings together investigators from UCL, University College London Hospital Trust/Health Services Laboratories, Great Ormond Street Hospital and Mortimer Market Centre Sexual Health Clinic.

The postholder will work closely with other bioinformaticians, evolutionary biologists and mathematical modellers as well as researchers and clinical teams based at UCL or who are part of the consortium. Individuals aiming for subsequent fellowship applications will be actively supported and encouraged.

For further details about the vacancy and how to apply online please go to—<https://tinyurl.com/wcrq687> Informal enquiries can be made to Professor Francois Balloux <f.balloux@ucl.ac.uk> or Professor Judy Breuer at <j.breuer@ucl.ac.uk>

f.balloux@ucl.ac.uk

UCLouvain Belgium MolecularEcolEvolution

Postdoc position in Molecular Ecology and Evolution

We are looking for highly motivated candidates to apply for a 2-year postdoctoral position (that can be extended for another 2 years), funded through the Fonds National de Recherche Scientifique (F.R.S.-FNRS), in the labs of Profs Bertanne Visser and Caroline Nieberding (UCLouvain, Belgium).

All living organisms have the ability for fat synthesis, with the exception of parasitic wasps that were thought to have lost and subsequently regained fat synthesis during their evolution. Recent findings have revealed, however, that fat synthesis in these wasps was not lost, but depends on environmental conditions: when developing in a fat-poor environment (lean hosts) wasps will readily synthesize fat; yet when development occurs in a fat-rich environment (fat hosts) fat synthesis can be shut off completely. The main aim of this project is to elucidate how plastic responses in fat synthesis are regulated. We will use an 'omics' approach (RNA-sequencing, epigenetics) to identify the molecular mechanisms responsible for switching fat synthesis on and off. The project will mainly involve laboratory work, including various molecular techniques. There is also room for field work and physiology experiments with different host and parasitic wasp populations.

The ideal candidate for this position will have a strong background in molecular biology/ecology and a capacity for creative and critical thinking. Knowledge of RNA-seq data production and analyses, and analysis of the methylome is a plus. The candidate will have opportunities to learn some of the specific skills required for the project from our network of national and international collaborators. Applicants should hold a PhD diploma. The deadline for applications is December 31st, or until the application is filled.

The salary will be between 2600-3000 euro gross per month, including benefits (e.g., health insurance), which are included in the Belgian system. Our University is an Equal Opportunity/Affirmative Action Employer, and is in a French-speaking region, but the language for meetings and scientific interactions is English. For background information about our university, see www.uclouvain.be. Applications should be sent to Bertanne Visser (bertanne.visser@uclouvain.be) and

Caroline Nieberding (caroline.nieberding@uclouvain.be). Applications must include 1) a motivation letter including a statement of interests; 2) full CV, including list of publications; 3) Contact details of at least 2 referees.

Prof. Dr. Bertanne Visser, Chercheuse Qualifiée F.R.S.-FNRS Evolution and Ecophysiology group Biodiversity Research Centre Earth and Life Institute UCLouvain Croix du Sud 4 1348 Louvain-la-Neuve Belgium bertanne.visser@uclouvain.be www.bertannevisser.nl I support the Peer Community In, an initiative that allows you to read and publish at no cost. Check us out at <https://peercommunityin.org/> Bertanne Visser <bertanne.visser@uclouvain.be>

UCopenhagen BovinePopulationGenomics

Postdoctoral position in Population Genomics

Position summary

The Department of Biology, Faculty of Science at University of Copenhagen is offering a post doc position in genetic admixture between cattle and banteng, commencing April 1st 2020 or as soon as possible thereafter. The 2-year post doc position is available with Tenure-track Assistant Professor Rasmus Heller. The successful candidate will work on population genetic analyses of the admixture history between domestic and wild species of the *Bos* genus using whole genome sequencing data. The focus will be to identify genomic regions that have introgressed between species. In addition, there will be a possibility of working on other projects using population genomics in large mammal species. There will also be a possibility of teaching courses or supervising student projects at various levels.

Description of the scientific environment

The position will be in the group of Tenure-track Assistant Professor Rasmus Heller (RH). RHs group works on using population genetic methods to infer evolutionary processes in wildlife species, including population divergence history, local adaptations and speciation, mainly in ruminants of Africa and Asia (<https://rathmuth.wixsite.com/wildlifegenetics>). The group is part of the larger Statistical and Population Genetics group (www.popgen.dk), consisting of a dynamic team of four PIs working on animal and human population genetics, high throughput data analyses, statistical genetics and method development. The University of

Copenhagen has a strong and growing population genetic research environment spread on several different institutes, bound together by many collaborative projects and monthly research seminars. The city of Copenhagen is consistently considered as one of the most liveable cities in the world.

Qualifications

Applicants must have a PhD in population genetics/genomics, bioinformatics or a similar quantitative field. In addition, the following are formal requirements to apply: - comprehensive experience in working with linux/unix and command lines, as well as some proficiency in one or more programming languages (such as R, Python, Perl, C/C++). - experience in working with high-throughput sequencing data, ideally with whole-genome sequencing data. - experience with population genomic analyses. - a demonstrated ability to communicate his/her scientific work in writing and in oral presentations. - must have published high-quality peer-reviewed papers.

In addition to these formal requirements, the following will be considered advantageous in candidates:

- is highly motivated, able to work independently and has good interpersonal skills.
- has prior experience with admixture analyses, including inferring local ancestry and demographic history.
- has an interest in mammal biology and/or animal domestication and/or livestock genetics.
- is willing to travel to Indonesia and other Asian countries as part of the collaboration with researchers and institutions in these countries.

Inquiries about the position can be made to Rasmus Heller, email rheller[at]bio.ku.dk.

Terms of employment

The position is covered by the Memorandum on Job Structure for Academic Staff. Terms of appointment and payment accord to the agreement between the Ministry of Finance and The Danish Confederation of Professional Associations on Academics in the State. The starting salary is currently up to DKK 434.179 including annual supplement (+ pension up to DKK 74.244). Negotiation for salary supplement is possible.

To apply

The application, in English, must be submitted electronically by clicking APPLY NOW on the following website (<https://employment.ku.dk/faculty/?show=150957>). The application should include the following items:

- Cover letter detailing your motivation and background for applying (max. 2 pages)
- Curriculum vitae
- Complete publication list
- Diplomas (Master and PhD de-

gree or equivalent) - Contact details of 2-3 persons for references and a brief description of your relationship to them

The deadline for applications is 31 January 2020, 23:59 GMT +1

rheller@bio.ku.dk

UCopenhagen FungalEvolutionGenomics

Postdoctoral Fellowship in Fungal Evolution and Genomics, University of Copenhagen

The Department of Biology in the Faculty of Science at the University of Copenhagen in Denmark is offering a Postdoctoral fellowship in fungal evolution and genomics, commencing 1 September 2020 or as soon as possible thereafter. The University of Copenhagen provides a top-notch research environment and the city of Copenhagen provides a vibrant cultural scene.

Scientific environment The fellowship will be part of a research project financed by an ERC Starting Grant based in the lab of Jonathan Shik (www.jonathanshik.com) within the thriving research environment of the Section of Ecology and Evolution, and will involve some fieldwork in the Panamanian tropical rainforests at the Smithsonian Tropical Research Institute (<http://www.stri.si.edu/>). The successful applicant will have experience and interest in evolution, genomics, bioinformatics, and fungus culturing methods.

Project Description The project will explore genomic signatures of crop domestication, focusing on a lineage of fungi that has been cultivated for food by attine ants for millions of years. These fungi have traits that reinforce their value as co-evolved food crops, and they depend on their ant farmers to provide them with nutritional substrates (e.g. fresh vegetation) foraged from the environment. The postdoc will take part in collection trips to Panamanian rainforests, perform integrative in vitro studies of fungus cultivar performance, and use genomics and bioinformatics tools to explore the metabolic pathways governing fungus crop performance.

Job description The position is available for a 2-year period and your key tasks as a Postdoctoral Fellow at SCIENCE are:

- * To manage and carry out your research project
- * To oversee student research related to your project
- * Write

scientific articles * To travel to and perform field research in tropical rainforests * Disseminate your research

Formal Qualifications

* PhD in Biology with good results (including publications and conference presentations) * An interest in fungal evolution, genomics and bioinformatics * Experience with sequencing and molecular analyses * Experience isolating and in vitro culturing of fungus * Creativity and ability to be both team-oriented and independent * A proven record of excellent English speaking, reading and writing skills. * Embrace of an international research environment and interdisciplinary research

Terms of employment The position is covered by the Memorandum on Job Structure for Academic Staff.

Terms of appointment and payment accord to the agreement between the Ministry of Finance and The Danish Confederation of Professional Associations on Academics in the State.

The starting salary is currently at a minimum DKK 426.625 including annual supplement (+ pension up to DKK 72.952). Negotiation for salary supplement is possible.

Application Procedure The application, in English, must be submitted electronically here: <https://employment.ku.dk/all-vacancies/?show=150980> . How to apply Applications must include:

* Cover letter * Statement of research interests and reasons for applying to this position (max 2 pages) * Curriculum vitae (including a list of publications) * Copies of relevant diplomas and transcripts (PhD, Master and Bachelor) * Separate reprints of 3 particularly relevant papers * Full contact details (name, address, e-mail, telephone numbers and addresses of 2-3 professional referees).

In addition to the fulfilment of the above-mentioned qualifications, the main criterion for selection will be the research potential of the applicant, the match with the project and good interpersonal skills. Additionally, my research group and the University of Copenhagen strive to reflect the diversity of society and welcomes applications from all qualified candidates regardless of personal background.

The deadline for applications is 10 January 2020, 23:59 GMT +1.

After the expiry of the deadline for applications, the authorized recruitment manager selects applicants for assessment on the advice of the Interview Committee. Afterwards, an assessment committee will be appointed to evaluate the selected applications. The applicants will be notified of the composition of the committee and

the final selection of a successful candidate will be made by the Head of Department, based on the recommendations of the assessment committee and the interview committee.

The main criterion for selection will be the research potential of the applicant and the previously mentioned skills. You can read more about the recruitment process at

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UEdinburgh PlantGenomics

Postdoc in plant genomics and bioinformatics, Edinburgh

The University of Edinburgh is seeking a Postdoctoral Research Associate to analyse plant genome data for the Darwin Tree of Life Project (www.darwintreeoflife.org). The University of Edinburgh and the Royal Botanic Garden Edinburgh are working together as part of the Edinburgh 'X' Genome Acquisition Laboratory 'X' hub for acquiring samples and sequencing plant genomes. This post will focus on assembling large genomes, over 20Gb, which are often ignored in sequencing projects. This will require the generation of very large long-read datasets and overcoming analytical issues associated with highly-repetitive genome sequences.

For more details see the full job advert: bit.ly/ToLgenome The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336.

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

UFribourg ComparativeGenomics

Job offer: 12 months post-doctoral position in comparative genomics

Application deadline: February 1st

The Blanchoud lab (University of Fribourg) and the Tiozzo lab (CNRS, Sorbonne University) are offering one year SNF funded post-doc position on a project that aims to survey horizontal gene transfers in Tunicates, the sister group of vertebrates. In particular, the candidate will perform a coherent and integrated analysis of all currently available genomic, transcriptomic and proteomic data to estimate the extent of functional foreign genetic material and their potential role in these marine chordates.

We are looking for a highly motivated bioinformatician with the following qualifications: - PhD degree in Bioinformatics, Computer Science, or a related field - Strong experience in the development of bioinformatic analysis workflows - Proficiency in suitable programming languages (e.g. Python, R) - Familiarity with HPC systems - Background in evolutionary biology and/or biochemistry would be a plus but is not required

The successful candidate will start at the latest by February 15th 2020, for a duration of 12 months. The project will be mainly held in Fribourg (Switzerland). However, short-term mobility to Villefranche-sur-Mer (France) will be considered.

Please submit your letter of interest, CV, references, and a relevant sample of code by email to Simon Blanchoud (simon.blanchoud@unifr.ch) and/or Stefano Tiozzo (tiozzo@obs-vlfr.fr).

Simon Blanchoud FNS Ambizione Fellow

Stefano Tiozzo CNRS - UPMC

Simon Blanchoud <simon.blanchoud@unifr.ch>

UHalle BeePopGeneticsGenomics

Postdoc in Insect Ecology and Evolution, Uni Halle, Germany

A research scientist/assistant professor is sought for a 'TV-L 13' position (reference No. 5-14238/19-H) to join the Paxton lab at the University of Halle, Germany. Broad research themes of the group are host-parasite interactions, pollination ecology and social evolution: http://www.zoologie.uni-halle.de/-allgemeine_zoologie/research/ The group's taxonomic focus is on insects, particularly bees. It draws heavily on molecular genetics, and research infrastructure is excellent. We seek a highly motivated individual with strong quantitative skills who can work indepen-

dently to develop a research program in population genetics/genomics and contribute to teaching at undergraduate and postgraduate levels within general zoology. Note that German language skills are required for teaching, though the lab language is English.

Further details of the position can be obtained from Robert Paxton (email below), to whom applications should be emailed as a single pdf file, to include (i) a letter of motivation, (ii) cv, (iii) list of publications, (iv) list of externally acquired funds, (v) a single page on research achievements and future plans, and (vi) contact details of three referees, by 20 December 2019. Interviews are scheduled for mid-January 2020. Prof. Robert Paxton, General Zoology/Institute of Biology, Uni. Halle, Hoher Weg 8, D-06120 Halle/Saale, Germany. Tel.: +49-345-5526500; Email: robert.paxton@zoologie.uni-halle.de

Robert Paxton <robert.paxton@zoologie.uni-halle.de>

UIceland EaglePopulationGenomics

Postdoctoral Researcher Institute of Life and Environmental Sciences University of Iceland

A postdoctoral position in Population genomics of the White-tailed Eagle in Iceland, is available at the Institute of Life and Environmental Sciences, University of Iceland.

Applications are invited for a one and half year position, with a possibility of an extension, at the Institute of Life and Environmental Sciences, University of Iceland, Reykjavik for the project: Population Biology and Conservation Genomics of the White-tailed Eagle in Iceland. The position is financed by a grant from the University of Iceland Research Fund. The project is supervised by Professor Sn̈björn Pálsson at the Faculty of Life- and Environmental Sciences in collaboration with Kristinn Haukur Skarphéðinsson at the Natural History Institute in Iceland, Agnar Helgason, University of Iceland and Decode Genetics, Michael D. Martin NTNU, Norway and Tom Gilbert, Professor at University of Copenhagen. Currently one PhD student and one MSc student are working on the project.

The White-tailed Eagle (*Haliaeetus albicilla*) in Iceland went through a severe bottleneck during the 19th century which reached 20 pairs in 1915 and which lasted for more than 50 years, due to human persecutions and fox poisoning. Since 1970, the growth has been slow

and the reproduction rate is lower in Iceland than in the neighboring countries in Europe. The aim of this project is to analyze the effect of small population size and inbreeding on genomic variation and individual fitness. A unique collection of current samples and historic data will be analyzed. We have already mapped more than 100 genomes from Iceland and the neighboring countries and applied Radseq analyses on the Icelandic population. The study has implication for evolutionary and conservation biology and the conservation of the White-tailed eagle.

Requirements - Applicants should have a PhD degree in Biology or related fields. - Experience in bioinformatics, genomics and/or population genetics is preferred. - The candidate needs to be able to work independently and have strong communication and interpersonal skills. - Proficiency in English is required.

Application deadline is December 21st 2019. The position is for 18 month and starts as early as possible. Please apply through the University of Iceland website, vacancies (http://english.hi.is/vacancies_list).

Applications shall include i) a cover letter, ii) a CV (stating relevant work experience, preferred knowledge, publication list (if any)), iii) copies of university diplomas (MS and PhD), iv) a one-page statement of research interests, v) names and contact information of two potential referees.

For further information, please contact Professor SnÁbjörn Pálsson (snaebj@hi.is).

All applications will be answered, and applicants will be notified of the employment decision when a decision has been made. Applications will be valid for six months from the end of the application deadline. Salary will be according to the current collective wage and salary agreement between the Union of University Teachers and the Minister of Finance. Appointments to positions at the University of Iceland are made in consideration of the Equal Rights Policy of the University of Iceland. The University of Iceland has a special Language Policy.

The School of Engineering and Natural Sciences employs ca. 360 people in academic positions. The School offers an international working environment, with the number of international employees and students increasing each year. Currently about quarter of all employees and graduate students are international. There are around 2900 students at the School, divided into six faculties, including approximately 350 MS students and 150 doctoral students. The University of Iceland is the largest teaching, research and science institute in Iceland and is ranked among the top 250 universities in the world by Times Higher Education. More information about

the University of Iceland can be found at the University of Iceland website, Relocation Service

snaebj@hi.is

UJyvaskyla Genomics Colour Polymorphism Tiger Moths

POSTDOCTORAL RESEARCHER IN GENOMICS
(fixed period 15.1.2020 - 31.1.2022)

We are looking for a highly motivated and enthusiastic postdoc to join our Predator-Prey Interactions Group. We use wood tiger moths (*Arctia plantaginis*) as our model. This moth is a Holarctic, warningly coloured, polymorphic moth in which alternative colour morphs differ in behaviour, physiology and ecology. The project aims to determine the molecular regulatory mechanisms underpinning the colour polymorphism. Integrating knowledge from these different regulatory levels (i.e. molecule-molecule, predator-prey, and mating preferences) will allow us to elucidate how different factors determine the overall fitness of the different phenotypes. The project will be carried out in close collaboration with Prof. Chris Jiggins (Cambridge University) and the postdoc will work both in Cambridge and Jyväskylä.

We have already generated a high quality reference genome assembly using a trio-based assembly method for the study species (N50>10Mb). We have resequenced data and have identified a candidate region for the colour polymorphism. The proposed work will use RNA-seq and ATAC-seq, as well as genome assembly of additional reference genomes in order to understand the evolutionary origins of the polymorphism and the regulatory networks that underlie the phenotypic variation.

To get more information about our research please visit <https://predatorpreyinteractions.com/research> and <https://heliconius.zoo.cam.ac.uk> . We are looking for candidates with strong background in genomics, with bioinformatics skills in analysis of large genomic data sets and a keen interest in evolutionary biology. Candidates should already have a PhD (or be about to obtain it), in molecular ecology, bioinformatics or other relevant discipline. We hope the postdoc to be able to start as soon as possible. The contract will end on 31.1.2022 (an extension is possible).

The annual salary range will be approximately 38,000 - 54,000 EUR (gross income, including holiday bonus), depending on the qualifications and experience of the

candidate.

For further information please contact Academy Professor Johanna Mappes, johanna.mappes@jyu.fi, Dr. Juan Galarza, juan.galarza@jyu.fi, or Professor Chris Jiggins, c.jiggins@zoo.cam.ac.uk.

To find useful information about the University of Jyväskylä, the City of Jyväskylä and living in Finland, see the University's International Staff Guide < <https://www.jyu.fi/en/workwithus/international-staff-guide> >.

Please attach the following documents to the online application form:

1. Curriculum vitae (CV), composed according to good scientific practice and considering, when possible, the template for a researcher's curriculum vitae by the Finnish Advisory Board on Research Integrity < <http://www.tenk.fi/en> >. A list of two referees and their contact information must also be included in the CV.
2. Short application / motivation letter, including research interests and plan.
3. List of publications covering all the scientific and other publications of the applicant.
4. Relevant certificates / diplomas

Please submit your application at the latest by 6 January 2020 11:45pm (GMT +2) using the following online application form:

https://rekry.saima.fi/certiahome/-open_job_view.html?did=5600&jc=12&id=-00008376&lang=fi Bibiana Rojas Academy of Finland Research Fellow Department of Biology and Environmental Sciences University of Jyväskylä P.O. Box 35 FI-40014 Finland

<http://bibianarojas.co> Twitter: @biobiana Tel: +358 (0) 408054622

“Rojas Zuluaga, Bibiana” <bibiana.rojas@jyu.fi>

UJyväskylä MicrobialMetagenomics

The Department of Biological and Environmental Science < <https://www.jyu.fi/bioenv/en> > is currently seeking to recruit staff to the position of

Post-doctoral researcher in metagenomics / microbial evolutionary ecology, starting 1 February 2020 or as soon as possible thereafter, contract length maximum of three years.

Watts group studies adaptation and fitness in animal and microbial model systems, with an emphasis on

identifying the impacts of anthropogenic activities on genome structure and also community structure and function in microbiota. We are seeking a highly motivated postdoctoral researcher to join our group and to study the indoor microbiota. A main aim of the research is to examine how the current and future climate may interact with important aspects of building design, such as the type of building materials and the hygrothermal properties of the building, to affect the composition of the indoor microbial community. The project also aims to integrate empirical data with the outcomes of laboratory experiments to develop models capable of predicting future microbial communities.

The successful candidate will join an international team of researchers at the Department of Biological and Environmental Science, University of Jyväskylä, and also s/he will be part of a multidisciplinary consortium that includes the research groups of Dr Antti Haapala (Wood Materials Science, University of Eastern Finland) and Dr Filip Fedorik (Structures and Construction Technology, University of Oulu).

To be eligible, the candidate will have completed a post-doctoral (PhD) degree in a relevant biological discipline. S/he is expected to have excellent written and oral communication skills, and be highly organised and capable of liaising with diverse stakeholders. The candidate will have a strong interest in microbiology, experimental evolution and/or genomics, and s/he will need to have bioinformatics expertise (e.g. be capable of analysing metabarcoding and metagenomics data using R and/or UNIX environments). Experience with molecular biology methods and/or programming is an advantage, as is possession of a full driving license.

The duties, qualification requirements and language skills of a postdoctoral researcher are stipulated by the University of Jyväskylä Regulations and language skills guidelines < <https://www.jyu.fi/en/workwithus/-academic-career/qualifications> >. The selected person is required to have a command of English language.

The annual salary range will be approximately 38,000 EUR (gross income, including holiday bonus), depending on the qualifications and experience of the candidate.

For further details, please contact: Prof Phillip Watts (phillip.c.watts@jyu.fi).

Please attach the following documents to the online application form (that can be found at: <https://www.jyu.fi/en/workwithus/open-jobs>):

1. Curriculum vitae (CV), composed according to good scientific practice and considering, when possible, the template for a researcher's curriculum vitae by the Finnish Advisory Board on Research Integrity < <https://www.tenk.fi/en> >.

[/www.tenk.fi/en](http://www.tenk.fi/en) >. A list of two referees and their contact information must also be included in the CV. 2. Short application / motivation letter, including research interests and plan. 3. List of publications covering all the scientific and other publications of the applicant. 4. Relevant certificates / diplomas

Please submit your application at the latest by 24 January 2020 11:45 pm (GMT +2) using the online application form.

“Watts, Phillip” <phillip.c.watts@jyu.fi>

journal

More information and how to apply here: <https://jobs.kent.ac.uk/vacancy.aspx?ref=STM-100-19> Deadline: Friday 31st January 2020

Marta Farré, PhD | Lecturer in Genomics School of Biosciences, University of Kent Stacey Building G17 Canterbury, Kent, CT2 7NJ, UK

ORCID: <https://orcid.org/0000-0001-9170-5767> Lab web: <http://www.farre-evogenomicslab.com/> ”M.Farre-Belmonte“ <M.Farre-Belmonte@kent.ac.uk>

UKent UK GenomeEvolution

We are seeking to recruit an enthusiastic postdoctoral Research Associate to join the Ellis laboratory. The successful applicant will join an established research group working on fundamental and applied aspects of male reproductive biology. Ellis group lab interests encompass mechanisms of chromosome segregation during meiosis, cytoplasmic and nuclear remodelling during haploid germ cell development, and how DNA damage in developing male germ cells affects the quality of the resulting gametes.

You will work on a three-year project funded by the Leverhulme Trust that seeks to understand how transmission ratio distorters manipulate the processes of gametogenesis and/or fertilisation so that they are passed on to more than 50% of offspring. You will work in close collaboration with the evolutionary and functional genomics lab, led by Dr Farré, to develop new approaches to answer how individual genes cause “drive” \pm , how genome rearrangements contribute to drive, and the evolutionary consequences of drive for genome structure.

Techniques to be used will include cutting-edge single-cell genomics, RNA-Seq and ChIP-Seq techniques; therefore, candidates with experience analysing these types of data are encouraged to apply. Although the position is mainly focused on bioinformatics, depending on the candidate’s interests there will be significant opportunities for you to participate in benchwork and gain appropriate lab skills.

To be successful in this role you will have:

* a PhD degree in Biology, Biochemistry or related discipline or equivalent * bioinformatic analysis of genomics data, particularly RNA-Seq and ChIP-Seq * a good understanding of evolutionary genetics and phylogenetic reconstruction * at least one publication in a peer-reviewed

UMinnesota MaizeGenomics

Position: Post-doctoral Research Associate

Location: University of Minnesota, Department of Agronomy and Plant Genetics

Research Area: Maize Genomics

Qualifications: Ph.D. in Genomics, Bioinformatics, Applied Quantitative Genetics, Plant Breeding, or related field. Strong programming and data management skills are preferred as well as excellent written and oral communication skills.

A post-doctoral position is available in the field of genomics applied to maize as part of an NSF Plant Genome project “Dissecting natural mechanisms of genome content variation and the impact on phenotypic variation”. The candidate will be responsible for leading computational analyses related to understanding diversity in the maize pan-genome. The research associate is expected to analyze large datasets and lead preparation and publication of peer-reviewed manuscripts that present research findings from the project.

The goal of the project is to understand the phenotypic impact of copy number variants and other genome content differences, as well as linking mechanisms of genome content variation generation to phenotypic outcomes. A large phenotypic and genomic dataset has been generated, and this is an opportunity to analyze a high-quality dataset and publish relatively quickly.

Experience working with next-generation sequence data, quantitative genetics or statistical modeling and analysis of large data sets is required. Prior experience analyzing complex omics data is desirable. Ideal candidates will be highly motivated to publish, able to lead an independent research project, have documented ability to successfully complete research publications,

and clearly describe skills that they have to offer and skills that they would like to acquire during their tenure as a post-doctoral researcher. Expertise in maize genetics or similar and documented ability to coordinate collaborative research is highly desirable.

This project is a collaboration between Candice Hirsch (UofM), Marna Yandea-Nelson (Iowa State), and Suzanne McGaugh (UofM).

For inquiries about the position and research focus, please contact Candice Hirsch (cnhirsch@umn.edu; (612) 301-9522). To apply, send a letter of application, a full curriculum vita, and contact information for three references to Candice Hirsch (cnhirsch@umn.edu).

Suzanne McGaugh <smcgaugh@umn.edu>

UNewMexico ComputationalGenetics

UNewMexico.ComputationalGenetics

Two postdoctoral positions are available in Prof. Gulisija's Computational Genetics and Evolution Lab in the Department of Biology at the University of New Mexico. The positions are initially for 1 year, renewable for additional years based on performance. Start dates are negotiable, and can be as early as January 2020.

The lab develops theoretical, statistical, and computational approaches to gain insight into evolutionary mechanisms underlying rapid evolution in new environments. We are currently focusing on the evolution of microbiome in response to climate change and on the role of complex epistasis and non-linear selection on complex trait variation. Additional information can be found at: <http://www.unm.edu/~dgulisija/>. The postdocs will have a considerable input in the design and execution of their projects. However, the projects should fall within one of the two research directions in the lab:

- 1) Developing mathematical models and statistical frameworks, and analyzing metagenomic data to infer evolutionary mechanisms of microbiome evolution during habitat expansion. The candidate should have previous experience in evolutionary modeling and simulations, and/or microbial metagenomic analysis.
- 2) Developing theoretical and statistical approaches for inferring the effects of complex epistasis and non-linear selection on patterns of complex trait variation. The

candidate should have a background in quantitative genetics and/or whole genome complex trait analysis.

Please contact Dr. Gulisija for more detailed description of the projects.

REQUIREMENTS: Candidates should have a Ph.D. in biology, genetics, statistics, mathematics, computer science, bioinformatics, computational biology, or a related field. Candidates should be proficient in programming in R, Python or C, or another major programming language, and shell scripting. In addition, candidates should be able to conduct independent research and should have a publication record, and excellent communication and writing skills.

Interested candidates should send a short description of their research interests, a CV, and contact information for 3 references to Dr. Davorka Gulisija at dgulisija@unm.edu.

UNM is an Equal Opportunity/Affirmative Action Employer and Educator. Women and underrepresented minorities are strongly encouraged to apply.

Davorka Gulisija dgulisija@unm.edu

Davorka Gulisija <davorkagu@gmail.com>

UOklahoma EvolutionOfSex

The Schlupp lab at the University of Oklahoma is inviting applications for an NSF funded postdoc position. You would join a team of scientist working on the evolution of sex. We want to investigate the origin of sperm dependent parthenogenesis using the Amazon molly (*Poecilia formosa*). This live-bearing fish is a hybrid species that is clonal, all-female, ameiotic, and produces diploid eggs. We will study the evolution of these traits by crossing the parental species in the laboratory in an attempt to retrace the steps that led to the formation of asexual hybrids. The information collected from this experiment will include several phenotypic measurements, as well as genomics. This project is conducted in close cooperation with Dr. Francisco Ubeda from the University of London, Royal Holloway, who will work on mathematical modeling informing the experiments conducted in the Schlupp lab.

Qualifications: You must have a PhD in Biology or a related field. The ideal candidate will have experience in obtaining and interpreting genomic data. You will be highly organized to conduct a complex crossing ex-

periment and have good people skills to work with a team. Experience working with fishes would be a bonus. You will have an opportunity to mentor Graduate and undergraduate students. You can interface with many scientists working at OU on big data, evolution, and ecology (<http://www.ou.edu/cas/biology>).

More information on the Schlupp lab can be found here: <http://ingoschlupp.com/> More information on the Ubeda lab can be found here. <https://pure.royalholloway.ac.uk/portal/en/persons/francisco-ubeda-de-torres.html> Compensation: the annual salary is \$45,000. Initial appointment will be for one year, with the possibility of an extension to up to three years.

The start date is negotiable, but Spring of 2020 is preferred.

How to apply: send a CV, a one page statement of research interests, a one page statement of career goals, and contact information for three referees in a single pdf to Ingo Schlupp at schlupp@ou.edu. Screening of applications will begin on January 1st 2020. The position will remain open until filled.

Many thanks, Ingo

Dr. Ingo Schlupp (he, him, his) Presidential Professor of Biology <http://www.ingoschlupp.com> <https://inhabitingtheanthropocene.com/> Research in Germany: <https://www.humboldt-foundation.de/web/home.html> <https://www.daad.org/en/> "Schlupp, Ingo B." <schlupp@ou.edu>

UOslo 4y Metabarcoding

Postdoc UOslo: 4y Metabarcoding and environmental DNA

The Natural History Museum is recruiting a postdoc in metabarcoding and environmental DNA for a full-time faculty funded four-year position (25 % of which is devoted to required duties). The Natural History Museum (NHM) at the University of Oslo holds Norway's most extensive collections of animals, plants, and fungi. These natural history collections are invaluable repositories because they enable the scientific community to answer key questions about geographical and temporal variation in biodiversity. As a museum, we seek to be at the forefront of developments in biology and adapt our infrastructure to the needs of science and society today. To develop our position at the cutting edge of metabarcoding and environmental DNA, we are recruit-

ing a researcher for a four-year postdoctoral position. This person enters a vibrant research environment in which five out of eight research groups at the museum apply and develop metabarcoding approaches, including applied work on the authentication of food and medicine, or for molecular biodiversity assessments, as well as to answer ecological or evolutionary questions using aquatic environmental DNA, trophic material, bulk invertebrate and plant samples, soil DNA, and sedimentary ancient DNA.

Traditionally, the museum's strategy emphasizes the use and collection of individual scientific collections, either through morphological or molecular research. The collection infrastructure requirements of environmental samples calls for a reassessment of our workflows, including physical sample storage, DNA bank storage, in-silico repositories, and reproducibility of analysis pipelines. In recent years, the museum has developed extensive experience in metabarcoding research, and we aim to increase the number of projects in these fields in the near future. The museum aims to strengthen its profile in environmental DNA/DNA metabarcoding by recruiting a postdoctoral researcher with a proven track record of scientific publications, international collaborations, and external funding in this field. The field is broadly defined and we are open to receive applications from anyone making a strong case for themselves, their research profile, and research plans with connection to natural history collections. The postdoc will join the Plant Evolution and DNA metabarcoding group led by Prof. Hugo de Boer, but is encouraged to work with all research groups at the museum.

Current research topics include:

- DNA metabarcoding of herbal products for authentication
- Aquatic eDNA monitoring of invertebrates
- Bulk insect biodiversity analysis
- Vegetation type assessments using soil eDNA
- Molecular biodiversity monitoring and restoration ecology
- Dietary analysis of herbivore interactions
- Sedimentary ancient DNA from cave sediments
- Soil core ancient DNA from lake sediments
- SedaDNA archaeobotany of monastery gardens
- Wood decaying fungi succession

The museum aims to strengthen its profile in environmental DNA/DNA metabarcoding by recruiting a postdoctoral researcher with a proven track record of scientific publications, international collaborations and external funding in this field. The field is broadly defined and we are open to receive applications from anyone making a strong case for themselves, their research profile, research plans and its connection to natural history collections. This person will join a strong team of scientists with a portfolio of eDNA projects and is

expected to contribute significantly to the advancement of scientific research on development and application of environmental DNA/DNA metabarcoding.

We seek an active researcher with a relevant and strong publication record that can collaborate with existing groups and projects as well as develop their own research program. The successful candidate should be on an upward trajectory and is expected to have strong potential to execute competitive research projects at a high international level. They should have the ability to create an attractive research environment and perform research that inspires synergistic effects with current research at the museum. The ideal candidate would focus on using environmental DNA/DNA metabarcoding to study fundamental questions in biology, rather than applying or developing methods. The museum also plays a leading role in postgraduate education in biodiversity and systematics through ForBio - Research School in Biosystematics and the candidate will help strengthening our profile through teaching and supervision of PhD students.

Required qualifications - PhD in biology, and a research profile with relevant experience in biodiversity assessment using molecular tools, specifically metabarcoding and/or metagenomics. - Experience with sampling and experimental design in projects using metabarcoding. - Familiarity with different sample types for analyses of bulk samples,

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UOslo 4yr MuseomicsAncientDNA

PostDoc position at the Natural History Museum of the University of Oslo in Museomics/Ancient DNA analyses

A Postdoctoral Research fellow position in museomics/ancient DNA analyses is available at the Natural History Museum (NHM), University of Oslo. The position is part of the research group 'Å¥Frontiers in Evolutionary Zoology (FEZ)'Å¥. The appointment is a fulltime position and is made for a period of up to four years (25 % of which is devoted to required duties) with a starting date no later than 31.08.2020.

The research group 'Å¥Frontiers in Evolutionary Zoology (FEZ)'Å¥ at the NHM currently includes three senior scientists with curatorial responsibilities for invertebrate collections, two PhD students, as well as several Master students. The Natural History Museum Oslo houses the largest natural history collections in Norway, and has the strategic goal of strengthening cutting edge research on collection material. To further strengthen NHMs position in the field we seek a young and dynamic early stage researcher who implements and develops strategies and protocols for molecular approaches to analyze difficult collection material (e.g., samples that have been preserved in either formalin or other fixatives disadvantageous for DNA survival).

The successful candidate shall have a strong publication record and potential for collaboration with current NHM curators, especially from the FEZ research group. Senior scientists within FEZ focus on various topics including the systematics, taxonomy, and molecular evolution of selected marine invertebrate groups, staphylinid beetles, and parasitic flatworms. Given the general topic of the position, the successful candidate is expected to also cooperate with other researchers at the institution. The position offers also the opportunity to actively develop own research projects. Hence, dedication to attract external funding is expected. The museum also plays a leading role in postgraduate education in biodiversity and systematics through ForBio 'V Research School in Biosystematics and the candidate will help strengthening our profile through teaching and supervision of PhD students. Postdoctoral fellows who are appointed for a period of four years are expected to acquire basic pedagogical competency in the course of their fellowship period within the duty component of 25 %. The main purpose of the fellowship is to qualify researchers for work in higher academic positions within their disciplines.

Qualification requirements - The applicants are required to have - a degree equivalent to a Norwegian doctoral degree in biology or equivalent. For candidates not having finished their doctoral degree the doctoral dissertation must be submitted for evaluation by the closing date of the call. An appointment is dependent on the defense of the doctoral thesis being approved - a strong academic track record - a strong background and practical experience in cutting edge molecular DNA methodology - experiences in bioinformatic analyses of big genomic data sets - team-working and networking skills - fluent in English (written and spoken). Command of a Scandinavian language is an advantage

Desirable experience - Furthermore, the applicants have/are preferentially - successfully acquired external funding for research projects - experienced in having

worked with natural history collections - experienced in working with difficult templates for genetic analyses - profound knowledge about systematics and taxonomy of invertebrates Teaching and supervision skills of Master and PhD fellows is an advantage.

We offer - salary NOK 532 300 - 583 900 per year depending on qualification and seniority as PostDoc Research Fellow (position code 1352) - challenging research questions and a friendly working environment - full funding of the project research-related activities, including field work, lab work and presentation of results at international conferences - membership in the Norwegian Public Service Pension Fund - attractive welfare benefits

How to apply The application must include (as separate and numbered documents): 1. An informative application/cover letter including a motivation statement for the position 2. A separate one-page statement explaining how this position fits the career plan and interests of the applicant 3. CV (summarizing education, positions and academic work, scientific publications and other relevant experience) 4. Copies of educational certificates and transcripts of records 5. List of publications and academic work that the applicant wishes to be considered by the evaluating committee 6. Names and contact details of 2-3 references (name, affiliation, relation to candidate, e-mail and telephone number). The references will be contacted if necessary. Letters of recommendation are therefore not required for the initial application.

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UPotsdam
TheoreticalCommunityEvoEcol

In the working group Ecology/Ecosystem Modelling at the University of Potsdam (next to Berlin) is a Ph.D. (3 years) or a Post-Doc position (2 years) available within the DFG funded Priority Programme DynaTrait (www.DynaTrait.de).

We are seeking a highly motivated and productive scientist who is interested and capable of contributing to a modelling team closely interacting with experimentalists and field data. She/he should have strong research

interests in community and trait-based ecology (e.g. dynamics of predator-prey and multi-trophic systems), and in the role of adaptability for system dynamics in particular (e.g. via eco-evolutionary dynamics). The work includes developing and analyzing predator-prey and food web models that account for ongoing mutual adaptations of trait values among interacting organisms. The focus of this position is on the newly emerging question how such mutual adaptations influence the robustness of the system against perturbations. Details may be adjusted to the preknowledge and interests of the post holder.

The ideal candidate holds a Master or Ph.D. in ecology, physics or a related discipline, has a strong background in trait-based ecology and/or comprehensive skills in working with models using differential equations. Experiences in data analysis are desirable.

The Ecology and Ecosystem Modelling Group is an established centre for both theoretical and experimental study on population and community ecology with a focus on plankton. The modelling team, consisting of four Post-Docs, Ph.D. and Master students, is supervised by Prof. Dr. Ursula Gaedke and provides a very stimulating research environment for promoting theoretical ecology by modelling and empirical studies. It is located in Park Sanssouci, a UNESCO Cultural World Heritage site centrally located in Potsdam, and about 30 minutes away from Berlin. Further information can be found at <https://www.uni-potsdam.de/en/ibb-ecology/>. The successful candidate can participate in the Potsdam Graduate School providing a broad spectrum of soft skill training.

Please send your application electronically with the usual information (in particular a letter of motivation, extended CV, and contact details of academic references and copies of degree certificates) to Prof. Dr. Ursula Gaedke (gaedke@uni-potsdam.de), if possible as a single file. The position is open until it is filled. The “12-years-rule” does apply for this position. Please send no original documents.

“velzen@uni-potsdam.de” <velzen@uni-potsdam.de>

UppsalaU 2 PlantEvolutionaryGenetics

Two Postdoctoral in Plant Evolutionary Genetics, Uppsala University

Two postdoctoral positions are available in the research groups of Martin Lascoux and Pascal Milesi at the Evolutionary Biology Centre in Uppsala, Sweden. Our two research groups work on plant population genetics and evolutionary biology with a special emphasis on local adaptation and genome evolution. We work on two groups of organisms: forest trees (spruces, birches, larches and poplars) and weeds (mainly the tetraploid weed *Capsella bursa-pastoris* and its close relatives). Please note that for both positions advertised below a background in Plant Biology is not required.

For more information please contact Martin.Lascoux@ebc.uu.se Pascal.Milesi@scilifelab.uu.se

The environment. The Evolutionary Biology Centre (<http://www.ebc.uu.se/>) is one of the world's leading research institutions in evolutionary biology. It is part of Uppsala University which is considered one of Europe's leading universities in the subject of biology bridging a broad variety of disciplines. The scientific environment with numerous seminars, journal clubs and social activities offer excellent possibilities for contacts and collaborations. Our lab is part of the Department of Ecology and Genetics and of the program in Plant Ecology and Evolution (<http://www.ieg.uu.se/>), an active environment addressing fundamental evolutionary and ecological questions with a wide range of different approaches. As members of the Science for Life Laboratory (<http://www.scilifelab.se/>) we make extensive use of high performance computing resources (<https://www.uppmax.uu.se/uppnex>) and extended bioinformatic infrastructure (<http://www.scilifelab.se/platforms/bioinformatics/>). The lab is situated in the student town of Uppsala that offers rich opportunities in cultural and outdoor activities. Sweden's capital, Stockholm, is less than an hour's train ride away.

For both positions the deadline to apply is January 15, 2020.

1. Postdoctoral position in population genomics of forest trees (Milesi group)

The project. The development of next generation se-

quencing has just begun to shed light on the complexity of the genetic architecture of quantitative traits. However, the role of structural rearrangements in their control has received limited attention. Coniferous species being of economic interest, a lot of genomic resources were produced during the last decades in both western Europe and north America. These species are also known to show strong pattern of local adaptation and their genome is enriched in paralogous genes. The project aims at studying the role of structural variants in adaptation and convergent evolution in Coniferous species.

The position. The successful applicant will be responsible for gathering genomic data and analyzing them. There will be also possibility to participate in other ongoing projects on local adaptation in spruce. The applicant is expected to have a solid background in population genomics, including associated lab work and be familiar with UNIX environments and have experience in standard bioinformatic approaches using high throughput DNA and RNA sequencing data from platforms such as Illumina. Proficiency in relevant programming languages (e.g. awk, bash, Perl, Python, C) will be a strong advantage. Skills in modelling and simulation would be considered a merit.

How to apply. Applicants with a proven record and with a PhD degree are encouraged to apply. To apply please go the website of Uppsala University where you can login and submit your application: <http://www.uu.se/en/about-uu/join-us/jobs/> The position is Postdoctoral researcher in Evolutionary genomics (Published 2019-12-10): <https://www.uu.se/en/about-uu/join-us/details/?positionId=303623> 2. Postdoctoral position on evolution of polyploids (Lascoux group, <https://lascouxlab.wordpress.com>)

The project. The present position is associated with a newly funded Swedish Research Council project that focuses on the evolution of genomic polymorphism and gene expression in polyploids, and more specifically on the importance of parental legacy in the evolution of allopolyploid species. In particular, we aim to test whether the evolution of gene expression is associated to deleterious alleles and whether this relationship is less pronounced in tetraploids than in diploids due to compensation. This work will be based on new genome and transcriptome sequencing in *Capsella bursa-pastoris*.

The position. The successful applicant will be responsible for growing

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mcmaster.ca/~brian/evodir.html

UToronto Evolutionary Ecol

The Department of Ecology & Evolutionary Biology at the St. George campus of the University of Toronto invites applications for a Departmental Postdoctoral Fellowship.

Area of Research: Ecology and/or Evolution, broadly defined.

Description of duties: We encourage applications from highly motivated postdoctoral fellows with broad interests in ecology and evolutionary biology. The Fellow may collaborate with a single or multiple advisors on research in ecology and evolution. To facilitate interactions within the department, the Fellow will co-organize a seminar series in the first year and organize a workshop on a topic related to the Fellow's interest for graduate students, postdocs and faculty in the second year. Although broad interactions within the department are expected, there is an emphasis on candidates with independence and innovative ideas, compared to more traditional post-docs who are expected to become members of a single lab and its research program. Given this independence, there will be access to a small research supplement to support the successful candidate's research. Prior to applying, we do encourage candidates to contact faculty members with shared interests about potential research activities.

The Fellow will be a fully participating member in the Department of Ecology and Evolutionary Biology (EEB) at the University of Toronto's St. George campus. The University of Toronto is a family friendly employer that has won awards as one of Canada's Top Family-Friendly employers for seven consecutive years. Employment as a Postdoctoral Fellow at the University of Toronto is covered by the terms of the CUPE 3902 Unit 5 Collective Agreement, which provides a Child Care benefit to eligible Postdoctoral Fellows. This is in addition to numerous other benefits that help support department members and their families.

Salary: \$52,000 - \$58,000/year

Required Qualifications: Applicants must have a PhD in ecology and/or evolution or a related area of study, and field-specific qualifications as set by the faculty advisor(s).

Application Instructions:

Applicants must submit a cover letter indicating the date that they will be available to begin the position, a curriculum vitae, copies of 2 publications, and a short (1-3 pages) description of past research accomplishments and future research plans. Applicants should include names and e-mail addresses for two potential referees. All application materials must be submitted as a PDF(s) in a single email to: Jenn English, EEB Payroll Officer at jenn.english@utoronto.ca by the closing date.

Closing date: January 15, 2020

Supervisor: Chair, Department of Ecology and Evolution, University of Toronto

Expected start date: As early as March 1, 2020 and no later than September 1, 2020

Term: 12 months; renewable for another 12 months subject to suitable research progress.

FTE: 100%

The University of Toronto is a leading academic institution in Canada 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 Centre for Global Change, and the School of the Environment. The University owns a nearby field station dedicated to ecological and evolutionary research (the Koffler Scientific Reserve, www.ksr.utoronto.ca). The department also has a partnership with the Ontario Ministry of Natural Resources that helps provide access to infrastructure, including lab facilities in Algonquin Provincial Park (www.harkness.ca), funding, and long-term data sets. Genomic analyses are supported by a number of high-performance computing resources, multi-lab bioinformaticians, as well as staff at the Centre for the Analysis of Genome Evolution and Function.

The normal hours of work are 40 hours per week for a full-time postdoctoral fellow recognizing that the needs of the employee's research and training and the needs of the supervisor's research program may require flexibility in the performance of the employee's duties and hours of work.

This job is posted in accordance with the CUPE 3902 Unit 5 Collective Agreement.

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from racialized persons / persons of colour, women, Indigenous / Aboriginal People of North American, persons with disabilities, LGBTQ persons, and others who may contribute to the further diversification of ideas.

Stephen Wright <stephen.wright@utoronto.ca>

UTurku BirdMicrobiomes

Are you interested in gut microbiome, ecology, evolution and physiology?

I am looking for an applicant to apply 3-year postdoc grants from Turku Collegium for Science and Medicine, to the following project in my group at the University of Turku (Finland):

The role of gut microbiome in adapting to changing environmental conditions (starting 1.9.2020)

All organisms on our planet carry microorganisms in their gut. Human and animal model studies show that gut microbiome is strongly linked to health. Host and its full microbial community have been suggested to form an inseparable entity 'V the holobiont. It is currently heatedly debated whether and how microbiome may help holobiont to adapt to variable environments. To address this, holobiont studies must be taken from the lab to the wild to reach the natural variation in developmental and selective environments. In this proposal, our overarching aim is to contribute to the understanding whether microbiome can drive the holobiont adaptation to environmental variation in wild populations, by following the principles of evolutionary theory (variation, inheritance, selection, adaptation). The study will be conducted at extensive temporal and European-wide spatial scale using well-established wild passerine bird populations, using both experimental microbiome manipulations and large-scale data collection. The project helps to understand how microbiome can contribute to phenotypic variation and allow animals to adapt to changing environments.

Applicants: The applicant should preferably have expertise in microbiology and bioinformatics. The applicant is expected to have strong publication record, strong analytical skills, interest in ecology, evolution and working in wild populations.

We offer a position in an active, enthusiastic, international research group in beautiful Finland. This is an collaborative project with a large international network across Europe. The position is very flexible, and the applicant can contribute to development of the project. There are plenty of possibilities for supervision, too.

More details on the grant and application process here <https://www.utu.fi/en/research/research-collegia/>

[tcsm/call-for-applications](https://sites.utu.fi/ruuskanengroup/tcsm/call-for-applications) More details on our research group here: <https://sites.utu.fi/ruuskanengroup/> Please send motivation letter and CV asap (by 30.12) to Suvi Ruuskanen (skruus@utu.fi). DL for the call is 7.1.2020. Don,t hesitate to ask any questions.

Suvi Ruuskanen

Suvi Ruuskanen, Academy research fellow Department of Biology University of Turku 20500 Turku, FINLAND Mobile +358503256547

Twitter: @RuuskanenSuvi Ruuskanen Group pages <https://sites.utu.fi/ruuskanengroup/> <https://-suviruuskanen.wixsite.com/ruuskanengroup> Suvi Ruuskanen <skruus@utu.fi>

UVirginia EvolutionInfectiousDisease

Research Associate in Biology Charlottesville, VA

The Department of Biology at the University of Virginia invites applications for a postdoctoral research-associate position in evolution and ecology of infectious disease. The position will be in the research group of Janis Antonovics as part of the project "Evolution of transmission mode: anther-smut as a model system" funded through the NSF/NIH Ecology of Infectious Disease Panel.

We seek applicants with research interests in the ecology and evolution of infectious disease with an interest in transmission modes and behavior. The successful applicant will plan, conduct, and publish research, and assist with other routine lab activities. Note that this is a short-term appointment for six months; however, the appointment may be renewed for some additional months, contingent upon available funding and satisfactory performance.

APPLICATION PROCEDURE: Apply online at https://uva.wd1.myworkdayjobs.com/en-US/-UVAJobs/job/Charlottesville-VA/Research-Associate-in-Biology_R0012218 and—attach a curriculum vitae, a cover letter, and contact information for three individuals who can provide professional reference letters.— The University will perform background checks on all new hires prior to employment.

APPLICATION DEADLINE: Review of applications will begin on—December 5, 2019, but the position will remain open until filled.— The University will perform

background checks on all new hires prior to employment.

For questions about the position, please contact Janis Antonovics, Associate Professor, at ja8n@virginia.edu.

For questions about the application, please contact Rich Haverstrom, Faculty Search Advisor, at rkh6j@virginia.edu

—For more information on the benefits available to postdoctoral associates at UVA, visit postdoc.virginia.edu and hr.virginia.edu/benefits.

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

“Haverstrom, Richard Kenneth (rkh6j)”
<RKH6J@virginia.edu>

Verbania Italy Bioinformatics

Postdoc Position in Bioinformatics, Metagenomics and the Environmental Antibiotic Resistome

The Molecular Ecology Group (MEG) of the Water Research Institute of the National Research Council of Italy (CNR-IRSA) in Verbania is looking for a postdoctoral researcher in the computational analysis of microbiome data ranging from water and wastewater microbial communities to host- and environment-associated microbial communities, to single strain genomic reconstruction and analysis, and metatranscriptomics.

Specific tasks will focus on the development of specific pipelines for the analysis of the antibiotic resistome in microbial communities, gene phylogeny, phenotype evolution, and transcriptomics.

Expected Profile: PhD or equivalent certified experience in bioinformatics, computational biology, statistical genetics, human microbiota, and microbial ecology. Good programming skills, proficiency in Unix/Linux and cluster experience. Strong independence and willingness in

collaborating in researches covering multiple fields of microbial ecology

The MEG is an exciting, interdisciplinary group with excellent facilities and a leading position in microbial ecology, biogeography and in the study of antibiotic resistance in the environment. The MEG is located in Verbania at the CNR-IRSA Institute, on the beautiful shore of Lake Maggiore in Italy at the border with Switzerland. The MEG is involved in several projects in partnership with more than 50 national or international leading research centres and universities. The selected candidate will have free access for 1 month to the Institute's guest house. The contract is for 1+1 year, extendable for a maximum of additional 4 years. Net salary is about 1500 euros/month for the first year, the position is not imposing the continuative presence of the researcher in the Institute.

Deadline for application: 17 of January 2017, expected starting date: March 2020.

To apply: Please contact Dr. Gianluca Corno (gianluca.corno@cnr.it) to get more information on the procedures (a couple of forms in Italian to be filled, CV and publications list are required).

Diego Fontaneto <diego.fontaneto@cnr.it>

WakeForestU ComputationalGenomics

A postdoctoral position in the area of computational genomics is available in the Pease Lab in the Department of Biology at Wake Forest University, Winston-Salem, North Carolina, USA (<http://www.peaselab.org>). Position is available initially for one year, but renewable for additional years conditional on mutual agreement and satisfactory work. Start date is negotiable, and as soon as January 2020.

We are looking for a Postdoctoral Researcher to partner in an NSF-supported, multi-institution project involving effects of climate and temperature on tomato gene expression and genetic evolution patterns. As a postdoc on this project, you will have the opportunity to work with a collaborative team of faculty, postdocs, and students around the country addressing integrative and timely questions about plant biology and genomics. Additionally, you will be part of our research team at WFU, which focuses on expanding our understanding of genomic evolution in the areas of rapid speciation, adap-

tation, and hybridization, along with the development of computational and analytical approaches to support these inquiries.

Candidates should have a Ph.D. in biology, genetics, statistics, mathematics, computer science, bioinformatics, computational biology, or a related field. Experience working with genomic sequence data and bioinformatics tools is required. Proficiency in scripting and databases is preferred.

Wake Forest University is located in friendly, affordable Winston-Salem, North Carolina. We are top-ranked private university with vibrant undergraduate and graduate programs in biology. The Department of Biology at WFU is highly active and collaborative, and we seek independent and motivated postdoctoral researchers to join us as colleagues. WFU is committed to the development of faculty and researchers as Teacher-Scholars, and provides ample opportunities for professional development, leadership, and mentorship for investigators at all levels.

Interested scientists should contact James Pease (peasejb@wfu.edu) with a CV, a brief statement of interest, and contact information for references. Applications will be reviewed until the position is filled. Be sure to check our website for more details and updates on the search (www.peaselab.org/join). Feel free to contact James Pease directly with any questions.

Wake Forest seeks to recruit and retain a diverse workforce while promoting an inclusive work environment committed to excellence in the spirit of Pro Humanitate. In adherence with applicable laws and as provided by University policies, the University prohibits discrimination in its employment practices on the basis of race, color, religion, national origin, sex, age, sexual orientation, gender identity and expression, genetic information, disability and veteran status and encourages qualified candidates across all group demographics to apply.

James Pease Assistant Professor, Department of Biology
Wake Forest University peasejb@wfu.edu 336.758.5567
<http://www.peaselab.org>

Yale EnvironmentEvolution

The Yale Institute for Biospheric Studies (YIBS) was established in 1990 through a generous bequest from Yale alumnus Edward P. Bass. YIBS is an umbrella environmental science organization that supports the

environmental community at Yale University through research and training, grants and fellowships, and weekly seminars and events (yibs.yale.edu). The newly established Hutchinson Environmental Program, named in honor of G. Evelyn Hutchinson, the father of modern ecology, is intended to support the environmental priorities identified in Yale's strategy to advance the sciences. We seek to attract as many as 10 Hutchinson Environmental Postdoctoral Fellows in the summer and fall of 2020. Cohorts of postdoctoral fellows, representing multiple disciplines, will be centered around the two broad themes outlined below: Environment and Evolution, and Climate and Greenhouse Gases. The Hutchinson Fellows will share space in the Osborn Memorial Laboratories on Yale's Science Hill. Postdoc cohorts will engage in research and synthesis activities with a network of Yale faculty mentors spanning multiple schools and departments. Priority will be given to applicants whose research incorporates data-driven synthesis, modeling, and/or conceptual unification of knowledge as a means to address these core themes. These are two-year postdoctoral fellowships (contingent on success in year one) with a starting salary of \$62,000, plus \$10,000 for research and travel. Funds will also be available to support cohort projects, symposia, workshops, and training in science communication. THEME I Environment and Evolution. Human-accelerated environmental changes are affecting the flux of energy and nutrients in ecosystems, in many cases by altering the structure and function of species interactions. We are seeking candidates whose research addresses how species interactions are reshaped by ecological and evolutionary responses to environmental change and/or how this reshaping determines processes and patterns at larger scales. Successful applicants will work in a highly collaborative environment around themes including, but not limited to: (1) eco-evolutionary dynamics in ecosystems driven by human-accelerated change; (2) the genomic basis of evolving species interactions; and (3) contemporary effects of environmental change from a paleoecological perspective. Faculty lead for Theme I: David Vasseur, Department of Ecology & Evolutionary Biology. Other relevant faculty are affiliated with the Yale School of Forestry & Environmental Studies, and the Departments of Geology & Geophysics and Anthropology. See yibs.yale.edu/hutchinsonfellowship for additional details and affiliated faculty. THEME II Climate and Greenhouse Gases. Atmospheric levels of CO₂, CH₄ and N₂O are increasing, leading to planetary warming. We are seeking candidates whose research can contribute to our general understanding of the generation and management of greenhouse gases (GHG). Because of growing interest in global methane among a group of Yale faculty, we are particularly interested in building a cohort

of postdoctoral fellows who can advance knowledge of the production and control of CH₄ losses from natural and human-managed systems. Successful applicants will work in a highly collaborative environment around themes including, but not limited to: (1) GHG fluxes from ecosystems and the energy sector; (2) microbial ecology and evolution relevant to GHGs; (3) GHG pathways in plants; (4) GHG dynamics in deep time; and (5) natural climate solutions. Faculty lead for Theme II: Peter Raymond, Yale School of Forestry & Environmental Studies. Other relevant faculty are affiliated with the Departments of Geology & Geophysics, Ecology & Evolutionary Biology, Chemical & Environmental Engineering, and the Yale School of Management. See yibs.yale.edu/hutchinson-fellowship for additional details and affiliated faculty. APPLICATIONS. Interested candidates should have, or will soon receive, a Ph.D. in a relevant discipline. Applications must be submitted by Monday, January 13, 2020. Submit a CV (with a complete bibliography), the names and email addresses

of three references, and a research statement detailing potential connections to one (or both) of the themes described above; please also identify one or more potential Yale faculty mentors. Applications should be submitted to <http://apply.interfolio.com/71435>. Applicants will be notified of the results of the selection process by mid-February 2020. Yale University considers applicants for employment without regard to, and does not discriminate on the basis of, an individual's sex, race, color, religion, age, disability, status as a veteran, or national or ethnic origin; nor does Yale discriminate on the basis of sexual orientation or gender identity or expression. Title IX of the Education Amendments of 1972 protects people from sex discrimination in

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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>

WorkshopsCourses

Barcelona GeometricMorphometrics Jan20-24	140	Berlin SpeciationGenomics Feb24-28	144
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Berlin BioinformaticsWorkflows Feb20-21	141	Procida EMBOPopulationGenomics Apr1-8	145
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Berlin LandscapeGenomics Jun8-12	142	UEdinburgh BreedingGenetics Apr27-May8	146
Berlin MetagenomicsMetatranscriptomics Jun1-5	142	ULisbon RADseqDataAnalysis Jan22	147
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Barcelona GeometricMorphometrics Jan20-24

Dear colleagues,

Registration is opened for Transmitting Science course 'GEOMETRIC MORPHOMETRICS IN R-7th edition'.

Dates: January 20th-24th, 2019.

Instructor: Dr. Julien Claude (Institut des Sciences de l'Évolution de Montpellier, France). The instructor is the author of the book "Morphometrics with R".

Place: Capellades, Barcelona (Spain)

Registration and more information:

<https://www.transmittingscience.org/courses/-geometric-morphometrics/geometric-morphometrics-r/>
Course Overview

Concepts in geometric morphometrics will be taught using a series of original data sets and working in R for solving a series of tasks. The course will start with an introduction to R and will rapidly go into shape analysis with measurements, landmark data and outlines. The participants are welcome to bring their own data and problems so that we may find R solutions.

This is not an introductory course to Geometric Morphometrics, therefore, basic knowledge of Multivariate Statistics, R and Geometric Morphometric is recommended in order to take this course.

This course is organized by Transmitting Science.

Please feel free to distribute this information between your colleagues if you consider it appropriate.

With best regards,

Sole

Soledad De Esteban-Trivigno, PhD Scientific Director
Transmitting Science www.transmittingscience.org

Soledad De Esteban Trivigno
<soledad.esteban@transmittingscience.org>

Barcelona PopGenomics Jul6-17

Advanced course in PHYLOGENOMICS AND POPULATION GENOMICS

17th edition

BARCELONA, from July 6th to July 17th, 2020

Dear all,

We have now opened the pre-enrolment to the 17th edition of the advanced course on "Phylogenomics and Population Genomics: Inference and Applications" which will be held in Barcelona, from July 6th to July 17th, 2020.

Pre-enrolment phase deadline is January 31st, 2020. Successful applicants will be notified via email by February 7th, 2020.

You can find complete information on the course, including contents, schedule and instructors at the following link: <https://www.ub.edu/certifem/ppgcourse>
OVERVIEW: The course aims to provide a thorough and rigorous training on the use of phylogenetic and population genetics methods to infer evolutionary mechanisms and population history at the inter- and intraspecific level using high-throughput sequencing data. It will cover most popular approaches used in phylogenomic inference, molecular dating and species delimitation, and in population genomics both to infer demographic history and to study molecular adaptation. Special emphasis will be put given to developing hands-on expertise in the use of the state-of-the-art software and explaining through practical cases the current and future applications of phylogenomics and population genomics.

AUDIENCE: The course is addressed to graduate and postgraduate researchers that need to learn how to handle HTS data to infer population history, phylogenetic relationships, estimate divergence times or adaptive processes, or many other applications of tree-based evolutionary methods.

STRUCTURE: This is a two weeks course, which includes lectures, in-class exercises, seminars and discussion sessions

****This course offers the possibility of being validated by 6 ECTS (European Credit Transfer System) credits.

Should you have any questions, please feel free to contact us at certifem@ub.edu

All the best,

M.A. Arnedo, Ph.D A. Sanchez-Gracia, Ph.D

Course directors.

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Berlin Bioinformatics Workflows Feb20-21

Course: Bioinformatics Workflows with Nextflow

When: 20-21 February

Where: Freie Universität Berlin (Germany)

Instructors: 1) Dr. Paolo Di Tommaso (Nextflow Lead) and 2) Evan Floden (Bioinformatician)

The course is intended for users to become quickly proficient in Nextflow technology, starting from basic through to advanced concepts. Intensive training is provided across 14 Nextflow topics with each topic designed to last between 45 to 60 min and includes talks, live demonstrations and practical sections which all participants can complete. For more information about this course, please see: (<https://www.physalia-courses.org/courses-workshops/course60/>) For the full list of our courses, please see: (<https://www.physalia-courses.org/courses-workshops>) Should you have any questions, please feel free to contact us: (<mailto:info@physalia-courses.org>)

Thanks, Carlo

Carlo Pecoraro, Ph.D

Physalia-courses DIRECTOR info@physalia-courses.org <http://www.physalia-courses.org/> Twitter: @physacourses mobile: +49 17645230846 <https://groups.google.com/forum/#!forum/physalia-courses> info@physalia-courses.org

Berlin Eukaryotic Metabarcoding Feb3-7

Dear all,

last 6 places left on the Physalia course on Eukaryotic Metabarcoding with Dr. Vasco Elbrecht (Zoological Research Museum Alexander, Bonn, Germany) and Daniel Marquina (Museum of Natural History, Stockholm, Sweden)

When: 3-7 February

Where: Free University (FU) Berlin (Germany)

Overview:

This course gives an overview of metabarcoding procedures with an emphasis on practical problem-solving and hands-on work using analysis pipelines on real datasets. After completing the course, students should be in a position to (1) understand the potential and capabilities of metabarcoding, (2) run complete analyses of metabarcoding pipelines and obtain diversity inventories and ecologically interpretable data from raw next-generation sequence data and (3) design their own metabarcoding projects, including bioinformatic data analysis and planning of laboratory work. All course materials (including copies of presentations, practical exercises, data files, and example scripts prepared by the instructing team) will be provided electronically to participants.

Intended audience

This workshop is mainly aimed at researchers and technical workers with a background in ecology, biodiversity or community biology who want to use molecular tools for biodiversity research and at researchers in other areas of bioinformatics who want to learn ecological applications for biodiversity-assessment. In general, it is suitable for every researcher who wants to join the growing community of metabarcoders worldwide. This workshop will review mostly techniques and software useful for eukaryotic metabarcoding. Other workshops focused on procedures currently used in microbial metabarcoding will be available from Physalia-courses.

Teaching format

The workshop is delivered over ten half-day sessions (see the detailed curriculum below). Each session consists of roughly a one hour lecture followed by two hours of practical exercises, with breaks at the organizer's discretion.

Assumed background

No programming or scripting experience is necessary, but some previous expertise using the Linux console and/or R will be most welcome. All examples will be run either in Linux or Mac environments, with some ssh connections to remote servers. For Windows users, a virtual box running Linux under Windows and/or the installation of an ssh client (e.g. PuTTY) will be needed. For MacOSX systems, installation of some additional Python packages might be needed for running the OBITools software suite. The syllabus has been planned for people which have some previous experience running simple commands from a terminal in Linux or Mac and using the R environment (preferently RStudio) for performing basic plots and statistical procedures. You will need to have a laptop with Python 2.7 installed for running OBITools, but no experience with Python is necessary. If in doubt, take a look at the detailed session content below or contact us.

Program: (<https://www.physalia-courses.org/courses-workshops/course4/curriculum4/>)

For the complete list of our courses and Workshops, please see: (<https://www.physalia-courses.org/courses-workshops/>)

Should you have any specific questions, feel free to contact us: info@physalia-courses.org

All the best, Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR
info@physalia-courses.org <http://www.physalia-courses.org/> Twitter: @physacourses mobile: +49 17645230846 <https://groups.google.com/forum/#!forum/physalia-courses> "info@physalia-courses.org"
 <info@physalia-courses.org>

Berlin LandscapeGenomics Jun8-12

Dear all,

registrations are now open for the 4th edition of the Physalia course on Landscape Genomics.

Where: Free University Berlin (Germany)

When: 8-12 June 2020

Instructors: Dr. Stephane Joost and Dr. Elia Vajana (EPFL, Lousanne, Switzerland).

This course is aimed at all biologists, ecologists, geneticists, veterinarians that want to implement the landscape genomics approach in their own studies of evolutionary biology and conservation. Even though the course is not intended for a specialized audience, basic knowledge in evolutionary biology and population genetics would help. Students will learn how to use GIS, but basic computer skills are desirable (e.g. in the R environment). A basic understanding of statistics is also necessary.

Course website: (<https://www.physalia-courses.org/-courses-workshops/course17/>)

For the full list of our courses, please see: (<https://www.physalia-courses.org/courses-workshops/>)

We wish you a Merry Christmas,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR
info@physalia-courses.org <http://www.physalia-courses.org/> Twitter: @physacourses mobile: +49 17645230846 <https://groups.google.com/forum/#!forum/physalia-courses> info@physalia-courses.org

Berlin MetagenomicsMetatranscriptomics Jun1-5

Dear all,

registrations are now open for the third edition of the Physalia course on "Metagenomics, metatranscriptomics, and multi'omics for microbial community

studies”: (<https://www.physalia-courses.org/courses-workshops/course33/>)

Where: Free University Berlin (Germany)

When: 1-5 June 2020

Instructors:

Dr. Curtis Huttenhower, Dr. Jeremy E. Wilkinson, Dr. Kelsey N Thompson, Dr. Eric Franzosa (Harvard School of Public Health, USA, <http://www.huttenhower.org/>)

Overview

This course will provide a thorough introduction to microbial community data analysis (metagenomics, metatranscriptomics, and other culture-independent molecular data) through a balanced approach of lectures and hands-on lab sessions. Course participants will learn how to process data from raw meta’omic sequencing files through appropriate bioinformatic methods and approaches for subsequent integrative statistical analyses. Participants are invited to bring their own data to the practical session on the final day or can use publicly available data from the Integrative Human Microbiome Project (HMP2).

Format

This course is designed for researchers and students with interest in using culture-independent molecular data (particularly DNA and RNA sequencing technologies) to study microbial communities. This includes both the human microbiome in population studies and techniques generalizable to any microbial communities. The course will mainly focus on the analysis of meta’omic sequencing, including workflows for processing raw sequencing data, multivariate analysis of microbial profiles, and visualization techniques.

Assumed Background

The participants should have some basic background in microbiology and/or bioinformatics. Programming experience is advantageous but not required, and a basic introduction to UNIX-based command line applications and R will be provided. All labs/tutorials will be run using pre-built cloud instances provided to students. Statistical analyses and visualizations will also be run in R using RStudio.

Learning outcomes

Familiarity with the goals of typical microbial community studies and common culture-independent molecular technologies used to assay them. Metagenomic and metatranscriptomic data analysis for taxonomic, functional, and strain-level characterization of communities using reproducible workflows. Learning how to perform multivariate statistical analyses, combine multiple mea-

surement types in microbial communities, and how to visualize associated results. Experience in integrative multi’omics analysis for large sets of human microbiome or environmental microbial community populations.

For more information about the course, please visit our website: (<https://www.physalia-courses.org/courses-workshops/course33/>)

Here is the full list of our courses and Workshops: (<https://www.physalia-courses.org/courses-workshops/>)

Best regards,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR
info@physalia-courses.org <http://www.physalia-courses.org/> Twitter: @physacourses mobile: +49 17645230846 <https://groups.google.com/forum-#!forum/physalia-courses> “info@physalia-courses.org”
[<info@physalia-courses.org>](mailto:info@physalia-courses.org)

Berlin Nanopore Genome Assembly Feb10-14 Last Call

Dear all,

last places left on our course “GENOME ASSEMBLY USING OXFORD NANOPORE SEQUENCING”

Where: Free University Berlin (Germany) When: 10 - 14 February 2020

Course website: <https://www.physalia-courses.org/courses-workshops/course59/> Registration deadline: 18th January 2020

Instructors: Dr. Robert Vaser and Josip Maric (University of Zagreb, Croatia - (<http://complex.zesoi.fer.hr/index.php/en/>)). Here you can find our interview with our instructors: (<https://www.physalia-courses.org/news/n16/>)

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. Structured over five days, this course consists of both theoretical and practical aspects which are intertwined through each day. The

presented theoretical foundation will be applied on small bacterial datasets and visualized in order to better grasp the algorithms at hand.

Best regards, Carlo

Carlo Pecoraro, Ph.D

Physalia-courses DIRECTOR info@physalia-courses.org <http://www.physalia-courses.org/> Twitter: @physacourses mobile: +49 17645230846 <https://groups.google.com/forum/#!forum/physalia-courses> "info@physalia-courses.org" <info@physalia-courses.org>

Berlin Speciation Genomics Feb24-28

Dear all,

last places left on our Speciation Genomics course with Dr. Mark Ravinet (University of Nottingham, UK) and Dr. Joana I. Meier (University of Cambridge, UK) :

<https://www.physalia-courses.org/courses-workshops/course37/> Registration deadline: 25th of January 2020

Free University (FU) Berlin (Germany), 24-28 February 2020

(<https://www.physalia-courses.org/instructors/t54/>)

This course will provide a thorough introduction to the growing field of speciation genomics. The course aims to take students from the initial steps required for handling raw sequencing data to demographic modelling and inference of genome-wide signatures of selection and introgression. Through a combination of lectures covering key theoretical and conceptual topics, alongside hands-on exercises, participants will learn the most important computational approaches used in speciation genomics. This will include a heavy emphasis on data visualization and interpretation. After completing of the course, the participants should be able to begin using NGS data to shed light on the genomic aspects of speciation in their study system of choice.

Learning Outcomes

Handling NGS data from raw reads to genetic variants

Applying basic population genetic statistics

Visualizing the genetic structure

Inferring demographic history

Identifying regions under divergent selection or barriers to gene flow

Understanding the potential and limitations of different methods to detect regions under selection

Please visit our website to have more information about the course content: (<https://www.physalia-courses.org/courses-workshops/course37/>)

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" <info@physalia-courses.org>

INRA-Morocco FarmAnimalGenomics Jan21-24

Dear all,

The pre-registration deadline for such training has been extended to December 29, 2019.

Please do not hesitate to advertise and forward this message to people who might be interested

Best regards, On behalf of the organizing committee,

On Nov 21, 2019, at 23:20, Benjelloun Badr <badr.benjelloun@gmail.com> wrote:

Dear all,

The National Institute of Agronomic Research in Morocco INRA-Morocco < <https://www.inra.org.ma/> > organizes a 4-day course, in the framework of the EU Horizon 2020 project IMAGE < <http://www.imageh2020.eu/> >. This event will follow the 1-day workshop <<https://www.inra.org.ma/fr/content-13112019-workshop-conservation-farm-animal-genetic-resources-fangr-january-20th-2020-rabat#overlay-context=fr/content/registration-workshop-farm-animal-genetic-resources-fangr>> that will be organised within IMAGE project with Moroccan decision makers and stakeholders.

Title: Biobanking for a sustainable management of Farm

Animal Genetic Resources (FAnGR): novel approaches in genomics, reproductive technologies and economics.

Aim: Give an update on the role of biobanking for a sustainable management of farm animal genetic resources (FAnGR) with a focus on the use of novel methods in genomics, reproduction, economics and the possibility to carry out practical cases of interest to participants.

Date: 21-24 January 2020

Location: Beni Mellal city, Morocco

Level: postgraduate (experience with Unix and SNP data is preferred. Laptops required for the exercises)

Language: French & English

Infos, agenda & pre-registration not later than December 20, 2019: here < <https://www.inra.org.ma/fr/content/-13112019-post-graduate-image-training-course-21-24-january-2020-beni-mellal-morocco#overlay-context=fr/content/13112019-post-graduate-image-training-course-21-24-january-2020-beni-mellal-morocco> > (the form can be filled in French also) Learning goals

How to assess neutral and adaptive genetic diversity in the era of whole genome data? How to effectively conceive and manage efficient genebanks? How could the use of cryo-conserved material help to restore profitable traits? Can we facilitate the effective use of gene bank samples in breeding by novel genome-assisted methods and tools? How to sustainably manage indigenous populations? Course content Assessment of genomic diversity Progress in genotyping Adaptive/productive introgression Functional genomics Economic assessment of conservation Conservation strategies Conception and use of animal genebanks Sustainable Management of livestock populations Legal issues Practical exercises

Confirmed lecturers Michèle Tixier-Boichard (INRA France) Badr Benjelloun (INRA Morocco) Sipke-Joost Hiemstra (Wageningen University & Research) Dominic Moran (Edinburg Univ.) Julie Demars (INRA France) Gwendal Restoux (INRA France) Philippe Monget (INRA France) Bouchra ElAmiri (INRA Morocco) Jack Windig, (Wageningen University & Research)

Organising committee (workshop & training) Abdelmajid Bechchari (INRA Morocco) Abdessamad Ouhrouch (INRA Morocco/USMS Beni Mellal) Badr Benjelloun (INRA Morocco) Bassou Bouazzama (INRA Morocco) Bouchra El Amiri (INRA Morocco) Fatima Ezzahra Labdidi (INRA Morocco/USMS Beni Mellal) Fouad Elame (INRA Morocco) Hayat Lionboui (INRA Morocco) Ichrak Hayah (UMV Rabat/INRA Morocco) Imane Thami Alami (INRA Morocco) Kaoutar Elfazazi (INRA Morocco) Marouane Jbilou (INRA Morocco) Michèle Tixier-Boichard (INRA France) Mo-

ammed BenBati (INRA Morocco) Mouad Chentouf (INRA Morocco) Moussa El Fadili (INRA Morocco) Mustapha Ibnelbachyr (INRA Morocco) Otman Sebata (INRA Morocco) Paul Boettcher (FAO) Reddad Tirazi (INRA Morocco) Samir Fakhour (INRA Morocco) Sipke-Joost Hiemstra (Wageningen Univ. & Research) Tarik Benabdelouahab (INRA Morocco) We will have slots for poster sessions during the 1-day workshop and the training. People applying for the training may optionally submit their abstracts related to the topics of the events using the email address image.trainingmorocco2019@inra.org.ma A book of abstracts will be edited for the training.

If you have further questions please check this link

— / —

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>

Procida EMBOPopulationGenomics Apr1-8

Dear Colleagues,

We are very excited to announce the fourth edition of the EMBO practical course in population genomics: this year there will be added emphasis on programming and machine learning applied to population genomics. The link to the course page is: <http://meetings.embo.org/event/20-populationgenomics> This EMBO Practical Course will cover coalescent theory, the effect of demography in space and time, genetic clustering, the detection and quantification of admixture and selection. Lectures on these topics will be complemented by hands-on computer practicals introducing a wide range of software packages, both in R and Python.

This course is aimed at evolutionary biologists who already have basic bioinformatics skills. A main criterion for selection will be how much a candidate can benefit from the course. This implies that Ph.D. students and Postdoc researchers will likely be favoured; however, applications from candidates at all levels will be considered. Registration deadline is 28 January 2020

Please feel free to forward this message to anyone who might be interested. Apologies for multiple posting.

Have a great day. The Organizers Chiara Batini, Uni-

versity of Leicester, UK Vincenza Colonna, Consiglio Nazionale delle Ricerche, It Andrea Manica, University of Cambridge, UK

“Batini, Chiara (Dr.)” <cb334@leicester.ac.uk>

Switzerland TamingTheBEAST May31-Jun5

Dear colleagues,

We are happy to announce that registration is now open for the June 2020 edition of our summer school, “Taming the BEAST”.

Phylogenetics and phylodynamics are central topics in modern biology. Phylogenetic inferences reconstruct the evolutionary relationships between organisms, whereas phylodynamic inferences reveal the dynamics that lead to the observed relationships. These two fields have many practical applications in disciplines such as epidemiology, developmental biology, paleontology, ecology and even linguistics. However, phylogenetics and phylodynamics are complex and fast-evolving fields. As such, inference tools are not easily accessible to researchers who are not from a computational background.

Taming the BEAST is a summer school focusing on the BEAST 2 software and consisting of a mix of invited talks, lectures and hands-on tutorials by leading and renowned experts in the field (including several of the core developers of BEAST 2). The aim of this summer school is to equip participants with the skills necessary to confidently perform their own phylogenetic and phylodynamic inferences in Bayesian settings, while providing them with a firm grasp of the theory behind those inferences. Participants are also highly encouraged to bring their own datasets along and to engage with the organisers and speakers to address any problems specific to their own datasets/analyses.

REGISTRATION IS NOW OPEN. We welcome applications from graduate students and early-career scientists in the life sciences. Preference will be given to applicants who are not from a computational background and applicants who have already collected/assembled a dataset that they need to analyze.

Invited speakers:

Alexei Drummond (University of Auckland) Tanja Stadler (ETH Zurich) Remco Bouckaert (University of Auckland) Denise Kuehnert (Max Planck Institute)

Dates: May 31 to June 5, 2020 (Deadline for registration is March 1).

Place: Oberägeri, Switzerland

Registration Fee: 900 CHF (Registration fee includes accommodation and meals).

For more information please visit the summer school website: <https://www.bsse.ethz.ch/cevo/taming-the-beast/overview-2020.html> For information on previous workshop programs, tutorials etc. please visit <https://taming-the-beast.org> . We hope to see you there, the Taming the BEAST organising team

“timothy.vaughan@bsse.ethz.ch”

<timothy.vaughan@bsse.ethz.ch>

UEdinburgh BreedingGenetics Apr27-May8

Dear All,

The University of Edinburgh, Scotland’s Rural College and the Excellence in Breeding Platform of the CGIAR are hosting a two week graduate level course on “Data-Driven Animal and Plant Breeding and Genetics”. It will take place in Edinburgh from April 27th to May 8th. The course will be taught by John Hickey, Gregor Gorjanc, Ian Mackay, Chris Gaynor and Eduardo Covarrubias and a team of demonstrators and guest lecturers.

Full details of the course are available in the attached document and at <https://bit.ly/384TXCD> Early bird registration closes on January 31st.

We look forward to hosting you in Edinburgh!

With regards!

University of Edinburgh Gregor Gorjanc, PhD Roslin Institute Chancellor’s fellow in Easter Bush Data Driven Innovation for AgriTech Midlothian twitter: @GregorGorjanc EH25 9RG mail: gregor.gorjanc <at>roslin.ed.ac.uk Scotland, UK skype: ggorjan

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

ULisbon RADseqDataAnalysis Jan22

Call for participation in the 1st Lisbon Area RADCamp workshop presented by cE3c at the University of Lisbon.

This one day workshop is designed to guide participants through the full bioinformatic processing of RADSeq data, taking raw data all the way through downstream analysis. We will introduce RADseq assembly in ipyrad (<https://ipyrad.readthedocs.io/>), phylogenetic and population genetic methods, high performance computing, basic unix command line and python programming, and jupyter notebooks to promote reproducible science. We will make extensive use of the ipyrad 'analysis' API which provides a powerful, simple, and reproducible interface to several widely used methods for inferring phylogenetic relationships, population structure, and admixture.

This workshop is geared toward practicing empirical biologists, so no previous experience with command line interface or bioinformatics is required. The workshop will be presented over the course of one full day (January 22, 2020) at the University of Lisbon. The preliminary schedule is available on the RADCamp website.

This workshop is *free*, but registration is mandatory. Participation will be limited to 32 individuals. Registration deadline is January 17, 2020. The registration link is available on the RADCamp Lisbon website:

<https://radcamp.github.io/Lisbon2020/> . RADCamp Lisbon 2020 Organizing Committee

Dr Isaac Overcast (Ecole Normale Supérieure, Paris) Dr Francisco Pina Martins (Universidade de Lisboa)

isaac.overcast@gmail.com

WoodsHole MolecularEvolution May31-Jun10

The 2020 Workshop on Molecular Evolution at the Marine Biological Laboratory in Woods Hole, Mas-

sachusetts, USA, will be held *** MAY 31 to JUNE 10 *** (note that this is earlier than past years).

Founded in 1988, the Workshop on Molecular Evolution is the longest-running workshop of its kind. The Workshop is the premier program for integrating the methods, theory, and applications of molecular phylogenetics, statistical genetics, molecular evolution, and related disciplines. Students work closely with internationally-recognized scientists, receiving (i) high-level instruction in the principles of molecular evolution, phylogenetic inference, and evolutionary genomics, (ii) advanced training in statistical methods best suited to modern datasets, and (iii) hands-on experience with the latest software tools (often from the authors of the programs they are using). The material is delivered via lectures, discussions, and bioinformatic exercises motivated by contemporary topics in molecular evolution. A hallmark of this workshop is the direct interaction between students and field-leading scientists. The workshop serves graduate students, postdocs, and established faculty from around the world seeking to apply the principles of molecular evolution to questions of both basic and applied biological sciences. A priority of this workshop is to foster an environment where students can learn from each other as well from the course faculty.

As the course progresses, participants learn how to use the following software to address questions concerning the origins, maintenance, and function of molecular variation: ASTRAL, BEST, FASTA, FigTree, IQTree, MIGRATE, MAFFT, MP-EST, RaxML, RevBayes, PAML, PAUP*, SVD Quartets, and SNaQ. Students will have the opportunity to work with software on their own laptops as well as receive training on how to use the same programs on a computer cluster.

In 2020 the course instructors include Peter Beerli, Joe Bielawski, Jeremy Brown, Minh Bui, Belinda Chang, Scott Edwards, Deise Gonçalves, Kelley Harris, Tracy Heath, John Huelsenbeck, Lacey Knowles, Laura Kubatko, Áki Láruson, Paul Lewis, Emily Jane McTavish, Claudia Solís-Lemus, Ed Susko, David Swofford, Katie Taylor, George Tiley, and Anne Yoder.

Deadline for applications is *** FEBRUARY 12, 2020 *** : see <https://ws2.mbl.edu/studentapp/studentapp.asp?courseid=mole> More information on the Workshop is available on the dedicated course website: <https://molevolworkshop.github.io> For further information, please contact the Workshop Co-Directors:

Paul Lewis (paul.lewis@uconn.edu) and/or Peter Beerli (pbeerli@fsu.edu)

“Lewis, Paul” <paul.lewis@uconn.edu>

Instructions

Instructions: To be added to the EvolDir mailing list please send an email message to Golding@McMaster.CA. At this time provide a binary six letter code that determines which messages will be mailed to you. These are listed in the same order as presented here — Conferences; Graduate Student Positions; Jobs; Other; Post-doctoral positions; WorkshopsCourses. For example to receive the listings that concern conferences and post-doctoral positions this would be 100010. Messages are categorized on the basis of their subject headings. If this subject heading is not successfully parsed, the message will be sent to me at Golding@McMaster.CA. In addition, if it originates from ‘blackballed’ addresses it will be sent to me at Golding@McMaster.CA. These messages will only be read and dealt with when I have time. The code 000000 has all channels turned off and hence gets only a once monthly notification of the availability of a monthly review pdf file.

To be removed from the EvolDir mailing list please send an email message to Golding@McMaster.CA. Note that ‘on vacation’, etc, style messages are automatically filtered and should not be transmitted to the list (I hope), but should you wish to avoid the e-mail’s your code can be temporarily changed to 000000.

To send messages to the EvolDir direct them to the email `evoldir@evol.biology.McMaster.CA`. Do not include encoded attachments and do not send it as Word files, as HTML files, as L^AT_EX files, Excel files, etc. . . . plain old ASCII will work great and can be read by everyone. Add a subject header that contains the correct category “Conference:, Graduate position:, Job:, Other:, Postdoc:, Workshop:” and then the message stands a better chance of being correctly parsed. Note that the colon is mandatory.

The message will be stored until the middle of the night (local time). At a predetermined time, the collected messages will be captured and then processed by programs and filters. If the message is caught by one of the filters (e.g. a subject header is not correctly formatted) the message will be send to me at Golding@McMaster.CA and processed later. In either case, please do not expect an instant response.

Afterword

This program is an attempt to automatically process a broad variety of e-mail messages. Most preformatting is collapsed to save space. At the current time, many features may be incorrectly handled and some email messages may be positively mauled. Although this is being produced by L^AT_EX do not try to embed L^AT_EX or T_EX in your message (or other formats) since my program will strip these from the message.