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# E v o l D i r

November 1, 2019

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

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## Foreword

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

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

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



Foreword .....	1
Conferences .....	2
GradStudentPositions .....	14
Jobs .....	55
Other .....	90
PostDocs .....	102
WorkshopsCourses .....	145
Instructions .....	155
Afterword .....	156

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## Conferences

AuburnU EcolEvolution Oct11-12 .....	2	Roros Norway EvolutionaryDemography Apr15-19 ..	8
Avignon France ForestGenetics Jan28-29 .....	3	SanDiego ForestTreeGenomics Jan12 DeadlineOct24	8
Brescia Italy EvolutionSwineFever Jan29-30 .....	3	Toulouse ForestAdaptation Nov19-20 Registration ..	9
Brisbane QuantGenetics Jun14-19 ExtDeadline .....	3	UAvignon GeneticsForestManagement Jan28-29 .....	9
CampinasU Brazil PlantFungalInvasions Jun20-23 ..	4	UFlorida Systematics Jan3-6 .....	9
Debrecen Hungary Reproductive Strategies Nov 7-10	4	UFribourg EcoEvoBiology20 Feb6-7 .....	10
Leipzig TropicalEcolEvolution Mar24-27 .....	5	UGttingen ReticulateEvolution Nov22-24 .....	11
Marseilles 24thEvol .....	6	ULeicester UK PopulationGenetics Jan5-8 .....	12
Marseilles EvolBiol Sep22-25 EarlyRegistration .....	6	UMuenster EvolutionaryBiology Mar30-Apr2 .....	12
Montpellier EvolutionOfInfectiousDisease Jun14-17 ..	6	WashingtonDC PEQG Apr22-26 DeadlineDec5 .....	13
NHM London YoungSystematists Nov22 .....	6	Wellcome UK EvolutionarySystemsBiology Feb12-14	13
QuebecCity SMBE2020 Jun28-Jul2 CallForSymposia	7		

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### AuburnU EcolEvolution Oct11-12

Auburn University will host the 2019 Southeastern Ecology and Evolution Conference (SEEC) on October 11th and 12th and present research in prescriptive evolution of Southeastern biodiversity.

SEEC 2019 will begin with a pre-conference workshop on Friday, October 11th (limited space) to introduce phylogenetic and GIS tools needed to study biodiversity. Ryan Garrick (University of Mississippi) and Robert Guralnick (University of Florida) will discuss how they apply data science to understand Southeastern diversity.

The next day, our general proceedings will kickoff with an opening speech by Auburn's own Alan Wilson followed with a plenary session on prescriptive evolution led by Andrew Hendry (McGill University) followed by oral and poster presentations from undergraduate and graduate students.

More information can be found at: <https://seecau2019.wixsite.com/auburn> Please send abstracts

to [seecau2019@gmail.com](mailto:seecau2019@gmail.com) if you are interested in giving an oral or poster presentation. Abstracts should be 150 words or less. There is no registration fee.

There will be limited room for the Friday workshop. Please include your interest in attending the workshop with your abstract.

Abstracts are due October 4th, 2019

Gavin Shotts <[gss0020@tigermail.auburn.edu](mailto:gss0020@tigermail.auburn.edu)>

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### Avignon France ForestGenetics Jan28-29

Last days to register and send your abstracts!

Conference: Genetics to the rescue, Managing forests sustainably in a changing world In Avignon, France, 28-29 January 2020.

The open conference days (28-29 January 2020) are built around four topical sessions: - Genomes and the environ-

ment - Local adaptation of climate change-related traits  
 - Conserving and using genetic diversity - Evolutionary management of forests

Important dates: - Submit your abstracts and posters by October 31, 2019 - Early bird registration ends November 20, 2019 - Registration closes January 10, 2020

More info: <https://colloque.inra.fr/confgentree2020>  
 Twitter: #rescueforest

The week also consists of the partners' annual assembly (Jan 27), a joint stakeholder consultation co-organized by EUFORGEN (Jan 30), a genomics training session (Jan 30) and a Wikipedia editing session (Jan 31). The scientific conference will welcome a maximum of 250 participants while the training and the stakeholder sessions held back to back with the conference will welcome no more than 80 participants each.

The conference is organized by the H2020 project GenTree (<http://www.gentree-h2020.eu/>) (@GentreeProject) and is held at the beautiful University of Avignon, France

Contact: Bruno Fady <[bruno.fady@inra.fr](mailto:bruno.fady@inra.fr)>, INRA Avignon, France

Bruno Fady <[bruno.fady@inra.fr](mailto:bruno.fady@inra.fr)>

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## Brescia Italy EvolutionSwineFever Jan29-30

Dear friends and colleagues, We are happy to announce that the registration and abstract submission is now open for the final conference of the COST Action ASF-STOP "Understanding and Combating African Swine Fever in Europe".

The conference will be held in Brescia 29-30 January 2020. The conference seeks to disseminate and exchange scientific knowledge on African swine fever. The two-days scientific programme will cover topics related to ASF virology, vaccinology, molecular biology, epidemiology, surveillance and diagnostics, as well as contingency planning, wild boar ecology, biosecurity and policy making.

The conference encourages the participation of Early Career Investigators through specific sessions and award competitions. ASF-STOP aims at inclusive collaboration with a good gender balance and wide geographical representation, thus, researchers from Inclusiveness Target Countries (ITC) and women are encouraged to par-

ticipate. Stakeholders are also welcome; a session will be dedicated to bridge knowledge between stakeholders and researchers.

On the COST action ASF-STOP website (<https://www.asf-stop.com/final-conference/>) you will find details on registration (deadline 10 December 2019) and abstract submission (deadline 20 October 2019). Additional information on sessions, speakers and program will be published soon.

Please forward this email to anyone who might be interested!

We hope to see you in Brescia.

Silvia Bellini, Marco Tamba, Dolores Gavier-Widén, Francisco Ruiz-Fons, Laura Iacolina and the Organization Team

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

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## Brisbane QuantGenetics Jun14-19 ExtDeadline

Dear all,

The 6th edition of the International Conference of Quantitative Genetics (ICQG <https://icqg6.org/>) will be held in Brisbane from 14 to 19 June 2020. Abstract submission deadline for presentations has just been extended by two weeks.

Call for oral abstracts closes on 14/10/2019, visit <https://icqg6.org/abstracts/> Call for poster abstracts closes on 31/01/2020 Presenter registration & early bird registration deadline is 31/01/2020

Best wishes Anne Charmantier

CHARMANTIER  
 <[Anne.CHARMANTIER@cefe.cnrs.fr](mailto:Anne.CHARMANTIER@cefe.cnrs.fr)>

Anne

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## CampinasU Brazil PlantFungalInvasions Jun20-23

Dear all,

Registration is now open for the 45th New Phytologist Symposium: Ecological and evolutionary consequences

of plant-fungal invasions. Travel grants for early career researchers are available.

[45th-nps-Logo-500-x-500-10779] Campinas, Brazil | 20-23 June 2020

45th New Phytologist Symposium: Ecological and evolutionary consequences of plant-fungal invasions

The 45th New Phytologist Symposium will explore how human activities increasingly alter plant and soil fungal communities and the consequences of these changes.

The symposium will take place over four days at the University of Campinas, Brazil, and include sessions organised by broad research topics. There will be dedicated time for discussions, poster sessions, selected poster talks and a field trip.

Travel grant deadline: Thursday 19th March 2020 < <https://www.newphytologist.org/grants/index/49> >  
Poster abstract deadline: Thursday 16th April 2020 < <https://www.newphytologist.org/posters/index/49> >

[www.newphytologist.org/symposia/45](http://www.newphytologist.org/symposia/45) #45NPS

Promotional tweet to share: [twitter.com/NewPhyt/status/1187300511462105088](https://twitter.com/NewPhyt/status/1187300511462105088)

Facebook event: [www.facebook.com/events/351655528838264/](https://www.facebook.com/events/351655528838264/) Please contact us at [np-symposia@lancaster.ac.uk](mailto:np-symposia@lancaster.ac.uk) if you have any questions regarding the event, and we will be happy to help.

With thanks, Freja

Freja Kärman-Bailey Events and Promotions Coordinator, New Phytologist Trust

New Phytologist Trust, Bailrigg House, Lancaster University, Lancaster, LA1 4YE, UK Tel: +44 1524 594691

The New Phytologist Trust, registered charity number 1154867

[newphytologist.org](http://newphytologist.org) Twitter: @NewPhyt

The New Phytologist Trust, registered charity number 1154867

2018 Impact Factor 7.299

Events in 2020 Ecological and evolutionary consequences of plant-fungal invasions next generation scientists 2020 < <https://www.newphytologist.org/nextgenevents> > | Stomata 2020

“Karrman-Bailey, Freja” <[f.karrman-bailey@lancaster.ac.uk](mailto:f.karrman-bailey@lancaster.ac.uk)>

## Debrecen Hungary Reproductive Strategies Nov 7-10

Dear Colleagues,

We are delighted to invite you to present the results of your research at the Reproductive Strategies Symposium. This is the last call: PLEASE NOTE THAT REGISTRATION WILL CLOSE ON 30 SEPTEMBER 2019

To overview recent research on reproductive strategies of plants and animals, University of Debrecen (Hungary) will host a three-day international symposium 7 - 10 November 2019. The Symposium will offer opportunities to present your latest research, and it will provide a forum for researchers of reproductive behaviour of microbes, plants and animals including humans to consider the current state of science and where the field is going. World-leading speakers will overview their recent research and address the future challenges facing the field. We expect participants from evolutionary biology, ecology, botany, behavioural ecology, conservation biology, microbial biology, zoology and beyond. The conference will start with a reception on Thursday 7 November and close on Sunday 10 November with an optional excursion to nearby Hortobagy National Park, an UNESCO World Heritage Site.

The Symposium will be opened by Profs Rosemary and Peter Grant (Princeton), and followed by plenary speakers that will include Prof. Hans Hoffmann (University of Texas, Austin), Prof. Ruth Mace (University College London), Prof. Ran Nathan (Hebrew University of Jerusalem) and Dr Beata Oborny (Eotvos Lorand University, Budapest).

Speakers will cover exciting aspects of reproductive strategies using cutting-edge research in life histories, neuro-genomics, population demography, sexual dimorphism, mating systems and parenting, dispersal and biodiversity conservation. Keynote speakers will include Prof. Andy J. Green (Estacion Biologica de Doñana, Sevilla), Prof. Zoltan Barta (University of Debrecen), Prof. Michaela Hau (Max-Planck-Institute for Ornithology, Seewiesen), Prof. Ferenc Jordan (Hungarian Academy of Sciences, Budapest), Prof. Andras Liker (University of Pannonia, Veszprem), Prof. Szabolcs Lengyel (Hungarian Academy of Sciences, Debrecen), Dr. Araxi Urrutia (University of Bath) and Prof. Bela

Tothmeresz (University of Debrecen).

We especially encourage young scientists to present their work at the Symposium, and to widen participation the costs will be kept at minimum. Debrecen is a one of the top tourist destinations in Hungary with an international airport that has direct flights to several major European destinations. The city has a large international student community and offers an excellent selection of hotels, restaurants and sightseeing facilities.

For further information please contact reproductive.strategies2019@gmail.com

The Symposium will cover the following topics: \* Life history strategies and reproductive strategies \* Sexual dimorphism: genomes, neuro-endocrine systems and behaviour \* Mating systems and population dynamics \* Family dynamics in humans and non-human animals \* Sex difference in dispersal and spatial ecology \* Reproduction, ecology and speciation \* The significance of reproductive strategies for conservation

We look forward seeing you in Debrecen.

Dr Orsolya Valko, University of Debrecen, valko.orsolya@science.unideb.hu Dr Zoltan Nemeth, University of Debrecen, nemethzoltan@science.unideb.hu Prof Tamas Szekely, University of Bath & Debrecen, T.Szekely@bath.ac.uk

The Symposium is sponsored by the University of Debrecen, the Hungarian Academy of Sciences, and the ELVONAL program of Hungarian Science and Innovation Agency

“nemethzoltan@science.unideb.hu”  
<nemethzoltan@science.unideb.hu>

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## Leipzig TropicalEcolEvolution Mar24-27

Dear colleagues,

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

The annual conference of the Society for Tropical Ecology (gtö) will provide an interdisciplinary platform for discussing major challenges and future opportunities in tropical ecology and evolution, 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 sessions is still OPEN. Proposals for sessions will be accepted until 31 October 2019.

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

Prof. Dr. Alexandra Muellner-Riehl Head, Director (LZ) Member of iDiv

Leipzig University Institute of Biology Dept. of Molecular Evolution and Plant Systematics & Herbarium (LZ) Johannisallee 21-23 D-04103 Leipzig Germany

Email: muellner-riehl@uni-leipzig.de

Editor, Journal of Systematics and Evolution (JSE)

The future of tropical ecosystems - new insights and innovative methods

SocTropEcol 2020

Alexandra Muellner <muellner\_alexandra@yahoo.de>

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## Marseilles 24thEvol

Dear all , these are the dates for the next meeting 24th Evolutionary Biology Meeting at Marseilles: September 22 'V 25.2020

early registration will start october 15

Pierre

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

alison duncan <Alison.Duncan@umontpellier.fr>

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## Marseilles EvolBiol Sep22-25 EarlyRegistration

Dear all

The Early registrations for the 24th Evolutionary Biology Meeting at Marseilles: September 22 - 25.2020 are open .

web : aeb.fr twitter :EvolBiolMeetingMarseilles Best regards Pierre

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

pierre.pontarotti@univ-amu.fr

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## Montpellier EvolutionOfInfectiousDisease Jun14-17

Dear Colleagues,

We would like to announce the 18th Ecology and Evolution of Infectious Disease meeting that will take place in Montpellier, 14 - 17 June 2020. The meeting will be centred around 4 key themes, with 8 keynote speakers

1. 'The crazy life of microbes', keynote speakers Stéphane Blanc and Kimberley Seed. 2. 'Disease control: epidemiological, ecological and evolutionary consequences', keynote speakers Jessica Metcalfe and Scott Nuismer. 3. 'Diversity of host resistance to pathogens', keynote speakers Stineke van Houte and Jean-Benoit Morel. 4. 'Using genomics and immunity to infer pathogen dynamics', keynote speakers Tanja Stadler and Henrik Salje.

For more information about the event you can check our website at '[www.eeidconference2020.org](http://www.eeidconference2020.org)' our Facebook page and follow us on Twitter '@EEID\_2020'.

Registration and abstract submission will open on the 13th January.

We look forward to seeing you there.

The Organising Committee, Thierry Boulinier, Nathalie Charbonnel, Alison Duncan, Sylvain Gandon, Ana Rivero, Benjamin Roche and Philippe Roumagnac.

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## NHM London YoungSystematists Nov22

Abstracts due next Friday, 25 October!

Now joined by Royal Botanic Gardens, Kew as a sponsor!

21st YOUNG SYSTEMATISTS??? FORUM Friday 22nd November 2019, 9:30 am Venue: Flett Lecture Theatre, Natural History Museum, London, UK

The annual Young Systematists??? Forum represents an exciting setting for Masters, PhD and young postdoctoral researchers to present their data, often for the first time, to a scientific audience interested in taxonomy, systematics and phylogenetics. This well-established event provides an important opportunity for budding systematists to discuss their research in front of their peers within a supportive environment. Supervisors and other established systematists are also encouraged to attend.

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

Registration is FREE. Please register here <https://www.eventbrite.co.uk/e/21st-young-systematists-forum-tickets-71381037605> supplying your name, contact address and stating whether or not you wish to give an oral or poster presentation. Please also tell us your academic stage ??? e.g., Masters, PhD or postdoc. Send abstracts by e-mail to [YSF.SystematicsAssociation@gmail.com](mailto:YSF.SystematicsAssociation@gmail.com) ,

Space will be allocated subject to availability and for a balanced programme of animal, plant, algal, microbial, molecular and other research. Non-presenting attendees are also very welcome - please register as above.

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

Abstracts must be submitted by e-mail in English and in Word format no later than Friday 25 October 2019. The body text should not exceed 150 words in length. Title, authors, and their professional affiliations/addresses



should be included with the abstracts. If the presentation is co-authored, the actual speaker (oral) or presenter (poster) must be clearly indicated in BOLD text. The file should be in editable format (.doc or .odt, not pdf) and titled Surname\_First-name\_YSF2019.doc, for example Doe\_Jane.YSF2019.doc.

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

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

With additional sponsorship from:

Dr Ellinor MICHEL Department of Life Sciences The Natural History Museum Cromwell Road SW7 5BD London UK tel: +44-207-942-5516

<http://nhm.academia.edu/EllinorMichel>  
[www.researchgate.net/profile/Ellinor\\_Michel](http://www.researchgate.net/profile/Ellinor_Michel) Elli-  
 nor Michel <[e.michel@nhm.ac.uk](mailto:e.michel@nhm.ac.uk)>

## QuebecCity SMBE2020 Jun28-Jul2 CallForSymposia

Dear SMBE Member,

We're delighted to announce that the Society for Molecular Biology & Evolution will be accepting proposals for symposium topics for the 2020 Annual Meeting from 9 September 2019. SMBE 2020 is taking place in Québec City, Canada, from 28th June to 2nd July 2020. \*The deadline for symposia applications is 10 October 2019.\*

Please visit the SMBE 2020 website - [smbe2020.org/call-for-symposia](http://smbe2020.org/call-for-symposia) - to access information and the submission portal.

Proposals will be reviewed by the committee with around 20-30 topics selected for inclusion within the scientific programme.

\*Key dates\*

\*-10 October 2019\* - Deadline for symposia applications

\*-18 November 2019\* - Abstract submission opens

\*-20 January midnight GMT 2020\* - Abstract submission deadline

\*-24 January 2020\* - Abstract review commences

Proposals should span the range of interests of SMBE members, including exciting new scientific developments, and should represent the geographic and gender diversity of our membership. To ensure the meeting is fully accessible to international participants, the conference organisers will provide supporting documentation and advice for visa applications to Canada. For each accepted symposium, SMBE will provide partial financial support to help attract outstanding invited speakers.

\*Symposium Proposal Guidelines\*

Please review the following guidelines before submitting a Symposium Proposal:

- Individuals can only be listed as an organiser for one symposium proposal, although organisers can be listed as an invited speaker on another proposal
- Each symposium will include one invited speaker plus a number of contributed speakers
- All invited speakers included within a symposium should have verbally agreed to be involved before the proposal is submitted
- An individual can only give one talk at the SMBE meeting, so in the event that a speaker is invited to two successful symposium applications the organisers should consider a back up
- The Society provides financial support to facilitate symposium organisers in attracting outstanding invited speakers
- Symposium organisers should provide a description of the symposium (250 words max) that will be made public if selected. The symposium organisers will also provide a description of how their proposal brings forward the SMBE's objective of equity and diversity, as well as any additional information for the committee to make an informed review (250 words max).
- The symposia proposals selected for inclusion within the SMBE 2020 scientific programme will then be listed on the abstract submission portal, which will open in November 2019, for members to indicate that they would want their contributed talk to be featured in a specific symposia.

Please direct all questions regarding SMBE 2020 to [SMBE2020@mci-group.com](mailto:SMBE2020@mci-group.com).

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

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## Roros Norway EvolutionaryDemography Apr15-19

To all evolutionary demographers across the world!

The Centre for Biodiversity Dynamics at the Norwegian University of Science and Technology is excited to invite everyone to the UNESCO's World Heritage Site of Røros, Norway, for the Evolutionary Demography Society's 7th Annual Meeting.

The theme of this year's meeting will be Evolutionary Demography under Global Change, where participants will have the opportunity to present their latest research as well as develop new collaborations, ideas and projects on the interplay between demography and evolutionary biology.

—Conference: EvoDemo7— What: EvoDemo7, Evolutionary Demography Society's 7th Annual Meeting  
Where: Røros, Norway When: 15-19 April 2020

—Important deadlines— Abstract submission: 2 December 2019 Early-bird registration: 13 December 2019

Abstracts can be submitted to [evodemo7@bio.ntnu.no](mailto:evodemo7@bio.ntnu.no).

—Website and social media— The website (<https://evodemo7.weebly.com>) is updated regularly with the newest information on the scientific program, keynote speakers, registration and much more.

Contact us at ([evodemo7@bio.ntnu.no](mailto:evodemo7@bio.ntnu.no)) if you have any questions related to the conference.

And follow us on Twitter (<https://twitter.com/EvoDemo7>) and Facebook (<https://www.facebook.com/events/1394648634042909>).

???We are looking forward to seeing you all at the meeting!

“Stefan J.G. Vriend” <[stefan.vriend@ntnu.no](mailto:stefan.vriend@ntnu.no)>

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## SanDiego ForestTreeGenomics Jan12 DeadlineOct24

Dear colleagues,

There will be a “Forest Tree Genomics” workshop at

the International PAG XXVII conference in January in San Diego (<http://www.intlpag.org/>) on Jan 12th from 8 - 12:40 pm.

To get an overview of the 2019 Forest Tree Genomics session, visit this link: <https://pag.confex.com/pag/xxvii/-meetingapp.cgi/Session/5505> . As in recent years, we are soliciting draft abstracts to be considered for oral presentation at the workshop. We screen abstracts to select presentations for the workshop, taking into account the quality of the science, novelty of the results, and organismal, geographic, and research group diversity. Students and post-doctorates are especially encouraged to apply. Please note that PAG policy does not allow the same speaker to speak at the workshop more than two years in a row. If you would like to be considered for an oral presentation at the PAG Forest Tree Workshop, you must submit a draft abstract (250 word maximum) to this web site (<http://bioinformatics.uconn.edu/forest-tree-workshop-abstract-submission/>) no later than THURSDAY OCTOBER 24, 2019. That will give us time to evaluate submitted abstracts, select speakers, and inform them by FRIDAY, OCTOBER 25. Those selected and confirmed for oral presentations by this process will be asked to register and submit their abstracts online as invited speakers in the Forest Tree Workshop no later than THURSDAY, OCTOBER 31. Those selected as poster presenters should submit their poster abstracts directly to PAG no later than SUNDAY OCTOBER 27, 2019. A small number of poster presenters will be invited to give an “elevator talk” (brief synopsis of their poster) at the workshop session. PAG early-bird registration deadline runs until NOV 1, and standard rates apply on NOV 2. We look forward to receiving your abstracts!

Best wishes, Amanda De La Torre (Amanda.de-la-torre@nau.edu) Richard Cronn (richard.cronn@usda.gov) Gancho Slavov (Gancho.Slavov@scionresearch.com)

“Cronn, Richard -FS” <[richard.cronn@usda.gov](mailto:richard.cronn@usda.gov)>

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## Toulouse ForestAdaptation Nov19-20 Registration

Dear forest and climate change stakeholder, The LIFE FORECCAsT project is pleased to invite project holders, scientists and stakeholders to register to the “Adapting forests to climate change: methods, tools, and projects” symposium. The registration deadline is the



1st of November 2019. Registration is to be made online at <https://forest-climate-change-symposium.eu/-registration/>. There are no registration fees and attendance is open to everyone; however, as space is limited, all attendees must register in advance to participate in this event and access will be granted on a first come, first serve basis.

The “Adapting forests to climate change” symposium will feature a wide range of talks, discussions and networking opportunities with European experts in the field of forest adaptation to climate change. It will be held in Toulouse, France, from 19-20 November 2019. The first day will focus on oral and poster presentations, the second will be dedicated to optional field visits in the nearby Parc naturel régional du Haut-Languedoc. The schedule and the list of presentations are available here: <https://forest-climate-change-symposium.eu/schedule/> For more information concerning this event, you can contact the LIFE FORECCAsT project team at [coord-foreccast@parc-haut-languedoc.fr](mailto:coord-foreccast@parc-haut-languedoc.fr) or visit our website: <https://forest-climate-change-symposium.eu> Looking forward to seeing you next November in Toulouse, The LIFE FORECCAsT team

Juliane CASQUET <[coord-foreccast@parc-haut-languedoc.fr](mailto:coord-foreccast@parc-haut-languedoc.fr)>

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## UAvignon GeneticsForestManagement Jan28-29

Call for abstracts and registration

Final conference of the H2020 project GenTree ?Genetics to the rescue ? Managing forests sustainably in a changing world? at the University of Avignon, France, on 28-29 January 2020.

The open conference days (28-29 January 2020) are built around four topical sessions: - Genomes and the environment - Local adaptation of climate change-related traits - Conserving and using genetic diversity - Evolutionary management of forests

Important dates: - Submit your abstracts and posters by October 31, 2019 - Early bird registration ends November 20, 2019 - Registration closes January 10, 2020

More info: <https://colloque.inra.fr/confgentree2020>  
The week also consists of the partners’ annual assembly, a joint stakeholder consultation with EUFORGEN, genomics training, and a Wikipedia editing session. The

scientific conference will welcome a maximum of 250 participants while the training and the stakeholder sessions held back to back with the conference will welcome no more than 80 participants each.

The conference is organized by the H2020 project GenTree (<http://www.gentree-h2020.eu/>).

Contact: Bruno Fady <[bruno.fady@inra.fr](mailto:bruno.fady@inra.fr)>, INRA Avignon, France

[christian.rellstab@wsl.ch](mailto:christian.rellstab@wsl.ch)

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## UFlorida Systematics Jan3-6

SSB 2020: Systematics in the Swamp

Date: January 3-6, 2020 Location: University of Florida, Gainesville, FL, USA

\* Registration is open (closes Dec 1, 2019): <http://reg.conferences.dce.ufl.edu/SSB/1588> \* Abstract submission is open for posters and lightning talks (closes Dec 1, 2019): <http://abstractr.dce.ufl.edu/Submission/Create/5341> \* All meeting info is here: <https://systbiol.github.io/ssb2020/index.html> The fourth standalone meeting of the Society of Systematic Biologists will take place January 3-6, 2020, at the University of Florida in Gainesville, Florida, USA. The meeting schedule includes two days of workshops, forum-style discussions of timely topics in systematics, lightning talks, and an evening reception and poster session at the Florida Museum of Natural History. Breakfast and lunch are provided all four days of the meeting.

Information for students/postdocs: - Travel awards and complimentary registration are available on a first come, first served basis. Please email [ssb2020UF@gmail.com](mailto:ssb2020UF@gmail.com) for more information. - We will be holding a special workshop on Monday, January 6, focused on Developing a Vision for the Future of Systematics. We want student and postdoc input, and travel support to the meeting will be provided for participants in this special day-long set of activities! Please fill out this form if you are interested: <https://forms.gle/8HFRyuRmeVuQmPB28> If you have questions, please email [ssb2020UF@gmail.com](mailto:ssb2020UF@gmail.com). We hope to see you in Gainesville!

“Sessa, Emily” <[emilysessa@ufl.edu](mailto:emilysessa@ufl.edu)>

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## UFribourg EcoEvoBiology20 Feb6-7

Registration now open for Biology20 in Fribourg, Switzerland:

We are delighted to announce that online registration and abstract submission is now open for the Swiss Biology20 conference, to take place on Thursday 6 and Friday 7 February 2020 at the University of Fribourg in Switzerland ([biology20.ch](http://biology20.ch)).

Direct link to the registration page: [registration.biology20.ch](http://registration.biology20.ch)

The deadline for abstract submission is 22 November 2019.

The deadline for registration is 6 January 2020.

Biology is the major annual Swiss conference on organismal biology, covering all aspects of ecology, evolution, systematics, behavior, and conservation. The meeting represents the annual meeting of the Swiss Zoological (SZS), Botanical (SBS) and Systematics (SSS) societies who co-sponsor the event via the Swiss Academy of Sciences (SCNAT), together with support from the Swiss Bioinformatics Institute (SIB). It aims to provide a platform for lively exchange between students, early-career scientists and established researchers across diverse institutions and disciplines within organismal biology.

To celebrate Darwin's groundbreaking insights, this 2-day conference traditionally takes place around Darwin's birthday and brings together approx. 300 participants from the Swiss community and beyond. It features 4 plenary talks by internationally renowned invited speakers; dozens of contributed talks by early-career scientists; a lively poster session; and, importantly, on Thursday evening the traditional 'Darwin's birthday party', a conference banquet with an after-dinner talk given by a renowned invited speaker and followed by a party. The day before the meeting (5 February) is reserved for a satellite meeting of the Swiss Bioinformatics Institute (SIB) on 'Analyzing Microbiomes' (organized by Laurent Falquet, Fribourg); if you are interested in attending the SIB satellite meeting you can register using the above-mentioned link.

We are proud to announce our keynote speakers:

- Claudia Bank (Instituto Gulbenkian, Portugal (evolutionary dynamics))
- Iain Couzin (Max Planck Institute/Univ. of Konstanz,

Germany) (collective behavior)

- Alexandra-Maria Klein (University of Freiburg, Germany) (ecosystems, landscape ecology)

- Andrea Waeschenbach (Natural History Museum, London) (molecular phylogenetics)

- Darwin dinner speaker: John Pannell (University of Lausanne, CH).

We are very much looking forward to welcoming you in Fribourg in February 2020!

All best wishes, and on behalf of the organizing committee,

Thomas Flatt and Rudolf Rohr

Organizing Committee:

Sven Bacher Louis-Félix Bersier Thomas Flatt Heinz Müller-Schärer Rudolf Rohr

Prof. Thomas Flatt Department of Biology University of Fribourg Chemin du Musée 10 CH-1700 Fribourg Switzerland e-mail: [thomas.flatt@unifr.ch](mailto:thomas.flatt@unifr.ch) phone: +41 26 300 8833 phone: +41 26 300 8850 (secretary) Web: <https://www3.unifr.ch/bio/en/groups/flatt/> European Drosophila Population Genomics Consortium: <http://droseu.net/> FLATT Thomas <[thomas.flatt@unifr.ch](mailto:thomas.flatt@unifr.ch)>

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## UGttingen ReticulateEvolution Nov22-24

Dear colleagues,

Soon the 61st Phylogenetic Symposium with the topic "Reticulate Evolution" will take place at the University of Göttingen from November 22-24, 2019. Registration for the conference is for free, while we ask for 10 euro support for coffee breaks. You can participate in the social event for 20 euro. We would like to ask you to submit poster presentations (with abstract) till Oct 31 and for planning please let us know till November 13 if you want to participate in the meeting (and the dinner). Please email [uschach@gwdg.de](mailto:uschach@gwdg.de) regarding conference participation, social event or poster registration. You will find this information online under

<https://www.uni-goettingen.de/de/-phylogenetic&#43;symposium&#43;2019/605388.html>.

In this meeting, we are looking forward to bring together experts from different backgrounds to summarize recent progress in the field of reticulate evolution.

The preliminary program is as follows (see also meeting homepage):

Friday, November 22

18:00 - 22:00 Arrival and registration 19:30 Ice Breaker (Foyer, Untere Karspüle 2, 37073 Göttingen)

Saturday, November 23 (Lecture hall MN34, Untere Karspüle 2, 37073 Göttingen)

08:30 - 08:45 Welcome address from the University of Göttingen 08:45 - 09:00 Introduction to the Phylogenetic Symposium (Christoph Bleidorn, Elvira Hörandl)

09:00 - 10:00 Andrew Watson (Université Pierre et Marie Curie, France). Chimeric genes in chimeric genomes

10:00 - 10:30 Coffee Break

10:30 - 11:30 Pamela S. Soltis (University of Florida, USA). Polyploidy and Plant Diversification

11:30 - 12:30 Christian Roos, Dietmar Zinner (German Primate Center, Göttingen, Germany). Hybridization and introgression in primates

12.30 - 14.00 Open lunch

14.00 - 15:00 Marta Barluenga (Museo Nacional de Ciencias Naturales Madrid, Spain). Hybrid speciation in cichlid fish

15:00 - 16:00 Judith Fehrer (The Czech Academy of Sciences, Prague, Czech Republic). Reticulate evolution at different levels in plants: detection and interpretation

16:00 - 16:30 Coffee break

16:30 - 17:30 Mathilde Cordellier (University of Hamburg, Germany). Ecological genomics in Daphnia: travelling in space and time

17:30 - 18:30 Bengt Oxelman (University of Gothenburg, Sweden). Species delimitation and phylogenetics of allopolyploids under the multispecies coalescent model

18:30 - 19:30 Poster session

20:00 - Conference dinner in the restaurant "Zum Szültenbürger"

Sunday, November 24 (Lecture hall MN34, Untere Karspüle 2, 37073 Göttingen)

09:00 - 10:00 Christoph Oberprieler (University of Regensburg, Germany). Gordian Networks - The dark arts of phylogenetics and species delimitation in polyploid complexes

10:00 - 11:00 Alexander Suh (Uppsala University, Sweden). Reconciling the phylogeny of birds with trees and networks

11:00 - 11:30 Coffee break

11:30 - 12:30 Summary and general discussion of presented topics (Christoph Bleidorn, Elvira Hörandl)

12.30 - 12.40 Farewell (Christoph Bleidorn, Elvira Hörandl)

13.00 - Optional: guided tour through the Old Botanical Garden

We are looking forward to welcome you in Göttingen!

Christoph Bleidorn Elvira Hörandl

Prof. Dr. Christoph Bleidorn Georg-August-Universität Göttingen Johann-Friedrich-Blumenbach Institute for Zoology & Anthropology Animal Evolution and Biodiversity Untere Karspüle 2 37073 Göttingen Germany

Follow me on twitter! [https://twitter.com/C\\_Blei](https://twitter.com/C_Blei) "Bleidorn, Christoph" <cbleido@gwdg.de>

## ULeicester UK PopulationGenetics Jan5-8

Dear Colleagues,

We would like to announce that registration for the 53rd running of the Population Genetics Group (PopGroup) meeting is now open.

The meeting will be held at University of Leicester (UK), 5-8th Jan 2020.

We are delighted to announce that our plenary speakers this year will be: Katrina Lythgoe, Stuart West, Melissa A. Wilson and Anne Yoder.

There will be a welcome reception on the evening of Sunday 5th January, followed by 2.5 days of talks, running from 9am on Monday 6th until lunchtime on Wednesday 8th January 2020.

As usual there are no symposia and talks will be allocated on a first-come first-served basis.

Full details, including links to registration and abstract submission, can be found at: <http://www.populationgeneticsgroup.org.uk/> The organising committee - Rob Hammond, Richard Badge, Max John and Ed Hollox - look forward to seeing you in Leicester in early 2020

Twitter: @popgroup #pgg53

"rh225@leicester.ac.uk" <rh225@leicester.ac.uk>

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## UMuenster EvolutionaryBiology Mar30-Apr2

Conference: 2nd Münster Evolution Meeting (MEM)

Date: 30 March - 2 April 2020

Location: Münster University, Germany

Present and discuss evolutionary questions across all fields (Botany, Zoology, Microbiology, Medicine, Philosophy, ...) and levels (from molecules to societies)! The Münster Evolution Meeting (MEM) aims to provide a forum for all Evolutionary Biologists working across different fields. Besides having the opportunity to share and learn about excellent research in evolutionary biology MEM also aims at bringing together evolutionary biologists working in German-speaking countries in a smaller setting, to allow for intensive networking and discussion. Münster is a welcoming and vibrant university town, offering a perfect venue.

Confirmed Speakers:

Nicholas Barton, IST Vienna

Benjamin Bomfleur, Münster University

Juliette de Meaux, University of Cologne

Susanne Dobler, University of Hamburg

Wolfgang Enard, LMU Munich

Heike Feldhaar, University of Bayreuth

Thomas Flatt, University of Fribourg

David Garfield, Humboldt University Berlin

Michael Grünstäudl, Freie Universität Berlin

Joachim Haug, LMU Munich

Adamandia Kapopoulou, Centre hospitalier universitaire vaudois Lausanne

Hans Kerp, Münster University

Barbara König, University of Zürich

Fyodor Kondrashov, IST Vienna

Martin Kuhlwil, University Pompeu Fabra Barcelona

Camila Mazzoni, IZW Berlin

Axel Meyer, University of Konstanz

Bernhard Misof, Zoologisches Forschungsmuseum Alexander Koenig Bonn

Kai Müller, Münster University

Paul B. Rainey, MPI for Evolutionary Biology Plön

Marlis Reich, University of Bremen

Walter Salzburger, University of Basel

Mark Stoneking, MPI for Evolutionary Anthropology Leipzig

Christian Schlötterer, University of Veterinary Medicine, Vienna

Anja Widdig, MPI for Evolutionary Anthropology/University of Leipzig

Organizers:

Institute for Evolution and Biodiversity, Münster University

Münster Graduate School of Evolution, Münster University

Chairs:

Jürgen Gadau, Münster University

Katja Nowick, Freie Universität Berlin

Registration and abstract submission for talks and posters are now open. Deadline for abstract submission is 15 January 2020. Regular registration ends 13 March 2020. Registration fee is 80 EUR. Early registrations are appreciated!

All details: <http://www.uni-muenster.de/Evolution/-MEM/main.shtml> We look forward to seeing you in Münster!

On behalf of the organizers,

Kristina Wensing

mem@uni-muenster.de

— MEM 2020 Congress Bureau Westfälische Wilhelms-Universität Münster Hüfferstr. 1a, D-48149 Münster, Germany +49(0)251 83 21252 mem@uni-muenster.de <http://www.uni-muenster.de/Evolution/-MEM/main.shtml> “Evolution Meeting, Münster” <mem@uni-muenster.de>

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## WashingtonDC PEQG Apr22-26 DeadlineDec5

Population, Evolutionary, and Quantitative Genetics (PEQG) 2020 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. Be sure to submit your abstract by December 5, 2019 to be considered for a talk.

<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

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' Along 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 5, 2019.

Cristy Gelling <CGelling@genetics-gsa.org>

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**Wellcome UK**  
**Evolutionary Systems Biology**  
**Feb12-14**

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

Early Bird Deadline - 5 November!

A forum for scientists interested in applying systems and mechanistic approaches to understand evolution.

Important deadlines - Early bird : 05 November 2019  
Bursary: 19 November 2019 Abstract: deadline 03 December 2019 Registration: 14 January 2020

We are pleased to announce the third meeting on Evolutionary Systems Biology. This conference will provide a forum for scientists interested in applying systems and mechanistic approaches to understand evolution.

Advances in genome sequencing and computational biology are providing unprecedented insights into biological mechanisms and evolutionary processes. In parallel, gene editing tools are revolutionising what is possible in model and non-model organisms. 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.

The conference will offer a valuable training ground and rich learning experience and provide networking opportunities for scientists across disciplines relevant to systems biology. It should be of particular interest to those working at the interface of evolution, quantitative genetics, and systems biology.

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 SanDiego, USA Marie-Anne Felix ??? IBENS, France Veronica Hinman ??? Carnegie Mellon University, USA Tuuli Lapalainen ??? 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/](https://coursesandconferences.wellcomegenomecampus.org/-our-events/evolutionary-systems-biology-2020/)

Treasa Creavin (email: [treasa.creavin@wellcomegenomecampus.org](mailto:treasa.creavin@wellcomegenomecampus.org))

Dr Treasa Creavin Scientific Programme Manager  
Tel: +44 (0)1223 495108 Wellcome Genome Campus Advanced Courses and Scientific Conferences | Wellcome Genome Campus | Hinxton | Cambridgeshire | CB10 1RQ | UK [wellcomegenomecampus.org/coursesandconferences](https://wellcomegenomecampus.org/coursesandconferences)

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– 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.

Treasa Creavin <[treasa.creavin@wellcomegenomecampus.org](mailto:treasa.creavin@wellcomegenomecampus.org)>

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## GradStudentPositions

AMNH NewYork ComparativeBiology .....	15	LundU EvolutionaryConservationBiology .....	27
AuburnU 2 WildlifeConservation .....	16	MaxPlanck EvolBio MathematicalBiology .....	28
Barcelona PredictingEvolution .....	17	MaxPlanck Evolbio MathModelsOfCooperation ...	29
BinghamtonU EvolutionBiology .....	18	MiamiU Ohio PlantEvoDevo .....	29
BrandonU Canada InsectEvolution .....	18	MonashU Australia EvolutionSexDisease .....	30
CentralMichigan CichlidEvolution .....	19	NatlUSingapore ButterflyEvolution .....	30
CityU NewYork ComputationalModeling .....	19	NorthDakotaStateU PlantEvoutionEcologicalGenomics	30
Clemson OralMicrobeEvolution .....	20		
EarlhamInst Norwich SplicingEvolution .....	20	PurdueU EvolutionaryEcology .....	31
ECU Perth PlantGenomics .....	21	StAndrews SocialEvolutionTheory .....	32
FreieU Berlin EvolutionHerpesVirus .....	22	StockholmU SexualSelection .....	33
Geneva Evolution .....	23	StonyBrookU EvolutionaryBiol .....	33
ImperialC London BirdEvolution .....	23	TexasAMU EvolutionaryBiology .....	34
KielU TranslationalEvolution .....	24	TexasStateU SanMarcos PopulationBiol .....	35
LaurentianU Canada SiberianSwanPops .....	25	TrentU 2 PopGenomics MolEcol .....	35
Lausanne ComparativeNeuroscience .....	25	UAlabama BeeGenomics .....	36
LehighU HybridizationReproductiveIsolation .....	27	UAlmeria Spain EcoEvolutionaryBioinformatics ...	37



UArizona HostParasiteInteractions .....	37	Ullinois Evolution Ecology Behavior .....	46
UAuckland PhylogeneticBiogeography .....	38	UmeaU EvolutionEndosymbiosis .....	47
UBarcelona ChordateEvoDevoGenomics .....	39	UNottingham EvolutionOfMimicry .....	48
UBasel HostParasiteEvolution .....	39	UOregon EvolutionMicrobialMetabolism .....	49
UBern GenomeDiversity .....	40	URochester EvolutionEcologyGeneticsGenomics ...	49
UCLouvain MolecularEcolEvolution .....	40	USaskatchewan EvolutionLymeDisease .....	50
UExeter Cornwall LifeHistoryEvolution .....	41	USheffield EvolutionaryGenomics .....	50
UExeter Cornwall ResistanceEvolutionWildlife ....	42	USouthampton NHMLondon AdaptationGenomics	51
UFlorida AntGeneEvolution .....	42	UTennessee Knoxville EvolBiology .....	51
UFZLeipzig Germany PlantEvolution .....	43	UTexas Austin EvolutionGenomics .....	52
UGeorgia SocialInsectEvolution .....	44	UTuebingen PlantEvolution .....	53
UIceland GenomicsAdaptiveDifferentiation .....	44	UTuebingen PredatorPreyCoevolution .....	53
UiT Norway EvolutionaryMarineGenomics .....	45	UUtah HostParasiteCoevolution .....	54
UKentucky EvolutionInsectPests .....	45	UYork ParasiteComparativeGenomics .....	55
ULausanne 2 TheoreticalEvolution .....	46		

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## AMNH New York Comparative Biology

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

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

This is an accelerated program, designed for students

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

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

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

**SUMMARY OF APPLICATION REQUIREMENTS FOR FALL 2020 APPLICANTS** Bachelor of Arts or Bachelor of Science or equivalent degree, from an ac-

credited institution; Official transcripts from all undergraduate/graduate institutions attended; Three letters of support; Statement of Academic Purpose (Essay 1: past research experience [length of up to 550 words] and Essay 2: proposed research interests [length of up to 500 words]); Interview (Final candidates will be interviewed); AMNH Faculty sponsor; Application fee of \$50 (Comp Bio Only); Proficiency in English (TOEFL [100 or higher] or IELTS scores [total 7.0 or higher] are required for non-native English speakers, taken within the past 2 years)

Deadline: December 15, 2019

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

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## AuburnU 2 WildlifeConservation

The Willoughby lab in the School of Forestry and Wildlife Sciences at Auburn University is seeking two new graduate students (MS or PhD) to join the group beginning in Fall 2020.

Research in the Willoughby lab is broadly focused on conservation genetics of wildlife, and typically uses genomic data and bioinformatic tools. Graduate students are given considerable flexibility in choosing research topics, although interest in the ongoing research topics is desirable. Current research the lab includes investigation of the evolution of fitness, understanding the complexities of population recovery from recent crashes, and developing methods for efficiently tracking large populations in terms of census size and movement patterns. Please see the lab webpage for additional information on these topics: < <http://wp.auburn.edu/willoughbylab/> >.

Successful applicants will be prepared to take on a new research project that combines molecular lab work with bioinformatics. For interested students, outreach and science communication opportunities can be made available, in support of the land-grant mission of Auburn University. Graduate students in the School of Forestry and Wildlife Sciences are provided with a competitive stipend and tuition remission.

Auburn University is an R1 institution located in a mid-sized city in the foothills of the Appalachian Mountains. Local attractions include farmers markets, Auburn City Fest, and the newly constructed Gouge Performing Arts Center. The nearby Kreher Forest Ecology Preserve and Tuskegee National Forest offer additional recreational opportunities year-round.

Diversity and inclusion are a high priority of this lab group; all interested applicants are encouraged to get in touch with me directly prior to applying to the graduate program. To do so, please send me an email (janna.willoughby@gmail.com) with your background and interests and a copy of your CV. Although familiarity with bioinformatics and molecular techniques may be desirable for these positions, previous experience in this area is not required. Please do not self-select yourself out of applying.

Janna Willoughby <jrw0107@auburn.edu>

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## Barcelona PredictingEvolution

Graduate student position (for a PhD) in predicting evolution:

Autonomous University of Barcelona, Genetics and Microbiology Department

1. Job/ project description:

The research will involve using and refining an existing mathematical model of wing morphogenesis to explore whether it can be used to predict how wing morphology changes over generations in an artificial selection experiment. These predictions would be contrasted with predictions stemming from a quantitative genetics analysis of fly populations.

2. Background:

Why organisms are the way they are?

Can we understand the processes by which complex organisms are built in each generation and how these evolved?

The process of embryonic development is now widely acknowledged to be crucial to understand evolution since any change in the phenotype in evolution (e.g. morphology) is first a change in the developmental process by which this phenotype is produced. Over the years we have come to learn that there is a set of developmental rules that determine which phenotypic variation can

possibly arise in populations due to genetic mutation (the so called genotype-phenotype map). Since natural selection can act only on existing phenotypic variation, these rules of development have an effect on the direction of evolutionary change.

Our group is devoted to understand these developmental rules and how these can help to better understand the direction of evolutionary change. The ultimate goal is to modify evolutionary theory by considering not only natural selection in populations but also developmental biology in populations. For that aim we combine mathematical models of embryonic development that relate genetic variation to morphological variation with population models. The former models are based on what is currently known in developmental biology.

There are two traditional approaches to study phenotypic evolution. One is quantitative genetics and one is developmental evolutionary biology. The former is based in the statistics of the association between genetic relatedness and phenotypic variation between individuals in populations, the latter in the genetic and bio-mechanical manipulation of the development of lab individuals. While the former models trait variation with an statistical linear approach the latter models it by deterministic non-linear models of gene networks and tissue bio-mechanics. For the most, these two approaches are largely isolated from each other.

The current project aims to contrast and put together these two approaches in a specific easy to study system: the fly wing. In brief, we are growing fly populations and, in each generation, we select the founders of the next generation based on how close they resemble an arbitrary optimal morphology in their wings (based on the proportions between several of their traits). In each generation also, we estimate the G matrix and the selection gradient to see how well one can predict evolution in the next generation. The quantitative genetics predictions will be contrasted with the predictions stemming from a wing morphogenesis model that we built based on our current understanding of wing developmental biology (see *Dev Cell*. 2015 Aug 10;34(3):310-22 for the model and for slightly similar approaches: *Nature*. 2013 May 16;497(7449):361-4. and *Nature*. 2010 Mar 25;464(7288):583-6).

### 3. Requirements:

The applicant must hold a Degree in Biology or similar. Programming skills or a willingness to acquire them is required.

The most important requirement is a strong interest and motivation on science and evolution. A capacity for creative and critical thinking is also required.

### 4. Description of the position:

The fellowship will be for a period of 4 years (100% research work: no teaching involved).

Salary according to Spanish pre-doc salaries.

### 5. The application must include:

-Motivation letter including a statement of interests

-CV (summarizing degrees obtained, subjects included in degree and grades, average grade).

-Application should be sent to: isaac.salazar@uab.cat

No official documents are required for the application first stage but these may be required latter on.

### 6. Deadline:

3rd of November 2019

Isaac Salazar Ciudad <Isaac.Salazar@uab.cat>

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## BinghamtonU EvolutionBiology

The Department of Biological Sciences at Binghamton University is seeking qualified applicants for admission to our PhD program for the Fall of 2020. Our department of 30 faculty members and >50 PhD students encompasses a wide range of research programs organized around three overlapping foci of Global Change Biology, Genetic & Molecular Interactions, and Infectious Disease. Our strengths in evolution, ecology, and integrative biology span across all three of these research clusters.

Faculty members who are potentially recruiting new students this year include:

-Anthony Fiumera - ecological genetics and genomics of complex traits ( <http://bingweb.binghamton.edu/~afiumera/home.html>)

-Carol Miles - neural basis of behavior and communication in insects ( <https://www.binghamton.edu/biology/people/profile.html?id=cmiles>)

-Heather Fiumera - mtDNA and mitonuclear contributions to adaptation and speciation, mitochondrial genetics, yeast genetics ( <https://hfiumera.wixsite.com/-bubioblcasts>)

-Jay Sobel - genomics of speciation and adaptation in *Mimulus* and other flowering plants (<http://www.sobel-lab.com/>)

-Jessica Hua - host-parasite interactions, evo-eco tox-

ecology, and phenotypic plasticity in aquatic systems (<https://jhua13.wixsite.com/jhua>)

-Kirsten Prior - community ecology, invasion biology, altered species interaction under global change ([www.priorecologylab.com](http://www.priorecologylab.com))

-Laura Cook - mechanisms of host/microbe interactions and pathogenicity in gram negative bacteria (<https://www.lauracooklab.com/>)

-Lindsey Swierk - behavioral ecology, sexual selection, and herpetology (<https://lindseyswierk.com/>)

-Tom Powell - speciation and evolutionary responses to climate change in Rhagoletis and other insect systems ([www.powellevolab.com](http://www.powellevolab.com))

-Weixing Zhu - biogeochemistry and urban ecology (<https://sites.google.com/view/wxzhu/home>)

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

Binghamton University is the top-ranked institution in the SUNY system and is consistently rated as one of the premier public universities in the Northeast. Our campus is located in the Southern Tier of New York, between the Catskills and Finger Lakes, about a 3 hour drive from NYC. The region features abundant opportunities for outdoor recreation and a very reasonable cost of living.

Prospective students should contact potential advisors before applying. Instructions for official applications can be found on the Binghamton University Graduate School's website - <https://www.binghamton.edu/grad-school/admissions/requirements.html>. To ensure full consideration by our department's graduate committee for our Fall 2020 cohort, all application materials should be submitted by January 6, 2020.

Thomas H. Q. Powell Assistant Professor Department of Biological Sciences Binghamton University PO Box 6000 Binghamton, NY 13902 607-777-4439 [www.powellevolab.com](http://www.powellevolab.com) Thomas H Powell <[powellt@binghamton.edu](mailto:powellt@binghamton.edu)>

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## BrandonU Canada InsectEvolution

Funded MSc Positions in Insect Evolution at Brandon University

The Cassone lab is seeking multiple highly motivated MSc students with an interest in the evolution of insect disease vectors and their host microbiome. The successful applicants will have an opportunity to conduct field surveillance, use cutting-edge molecular biology techniques, and gain experience analyzing big data sets.

Interested students should get acquainted with the research program of Dr. Cassone ([www.cassonelab.com](http://www.cassonelab.com)), and are encouraged to contact him directly for further information ([cassoneb@brandonu.ca](mailto:cassoneb@brandonu.ca)). Please include a brief description of your interest and a CV in your email. Funding options are available for both Canadian and international students.

Closing Date: Open until filled Start Date: Spring 2020 preferred

Founded in 1899, Brandon University is a small but thriving institution located in southwestern Manitoba, Canada. Students have access to fully renovated labs, greenhouse and growth chamber facilities, as well as state-of-the-art molecular and computational equipment.

Bryan Cassone PhD Associate Professor of Biology Coordinator of Graduate Studies (MELS) [www.cassonelab.com](http://www.cassonelab.com) Brandon University 270 18th Street 3-16 Brodie Building Brandon, MB

Bryan Cassone <[CassoneB@BrandonU.CA](mailto:CassoneB@BrandonU.CA)>

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## CentralMichigan CichlidEvolution

Graduate student (1 M.S.) position available in cichlid behavior and evolution in Dr. Dijkstra's lab at Central Michigan University starting Fall 2020. Our current



projects combine behavioral experiments and physiological measurements to study the cost of social dominance and reproduction in cichlid fish. Interested candidates should contact Dr. Peter Dijkstra (dijks1p@cmich.edu). More for details and application instructions:

<https://sites.google.com/site/peterdijkstrausnl/-prospective-students> Review of applicants will start Nov 15, 2019.

“Dijkstra, Peter Douwe” <dijks1p@cmich.edu>

cuny.edu) if there is interest.

Michael J Hickerson Associate Professor City College of New York - Biology Department; 160 Convent Ave New York, NY 10031 PhD subprogram in Ecology Evolution, and Behavior (EEB) City University of New York and the Graduate Center New York, NY 10016-4309 Research Associate - Division of Invertebrate Zoology American Museum of Natural History <http://hickerlab.wordpress.com/> Michael Hickerson <mhickerson@ccny.cuny.edu>

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## CityU NewYork ComputationalModeling

The Carnaval and Hickerson labs at the City University of New York have a new openings for a PhD student who is interested in bridging community ecology with population genetics and comparative phylogeography. The group is focusing on developing and implementing population genetic methods for understanding the evolutionary and demographic histories of co-distributed species assemblages and processes underlying community assembly.

Funding will be partially provided by the newly funded NSF grant “A Rules Of Life Engine (RoLE) Model to Uncover Fundamental Processes Governing Biodiversity” (DBI-1926928). This project involves collaborations with researchers at the Santa Fe Institute, University of Florida and University of California (Merced and Berkeley) and aims to understand and infer eco-evolutionary processes underlying multi-dimensional biodiversity survey data.

The ideal candidate will have a strong interest and aptitude in quantitative biology, modeling, and programming as well as an interest in ecology, evolutionary genetics and biogeography. The labs especially welcome qualified applicants with diverse backgrounds including anthropology, mathematics, physics, computer science, and related fields.

The two labs are located in Manhattan and benefit from a thriving academic environment in New York City and has close ties with other biogeographically focused labs at CUNY and the AMNH, as well as being part of the CUNY PhD subprogram in Evolution, Ecology and Behavior.

We anticipate that the position would start in the Fall of 2020. Contact Ana Carnaval (acarnaval 'at' ccny.cuny.edu) or Mike Hickerson (mhickerson 'at' ccny

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## Clemson OralMicrobeEvolution

Clemson.OralMicrobeEvolution

Vincent Richards' lab in the Department of Biological Sciences at Clemson University is accepting applications for a PhD position.

The overarching research theme will focus on the oral microbiome and the relationship between the bacterial and fungal components of this community. Specific questions include how these taxa respond and adapt to this dynamic environment. Operating over numerous time scales, multiple host factors such as diet, health, disease, and host genotype can impact the oral environment and hence are strong evolutionary forces that can shape and select for changes within the community. We are particularly interested in the interplay and co-evolution of bacterial and fungal components of the community and how these processes are impacted by immunosuppression. Multiple omic approaches such as comparative genomics, metagenomics, and metatranscriptomics will be coupled with network analyses to address these questions.

Desirable skills include experience analyzing next-generation sequence data and proficiency with Linux/bash. However, these are not absolute requirements as the student will be trained in numerous omic and bioinformatic approaches. Importantly, the student should possess a great deal of enthusiasm, curiosity, and imagination.

The position will be available Fall 2020 and the salary will initially range between \$22,000/year and \$25,000/year plus benefits and tuition (commensurate with experience and qualifications). Increases are possible. Applicants should contact Vincent Richards directly at [vricha@clemson.edu](mailto:vricha@clemson.edu). Please provide a cover letter (describing research interests, experience, and career

goals) and a CV that includes links to any authored publications.

Clemson University is ranked 27th among top national public universities and 70th among all national universities by U.S. News & World Report and is located on Lake Hartwell near the Blue Ridge Mountains in beautiful Upstate South Carolina.

Vincent P. Richards, PhD Assistant Professor Department of Biological Sciences Clemson University Clemson, SC 29634 Email: [vricha@clemson.edu](mailto:vricha@clemson.edu) Lab website: <http://www.vprichards-lab.com> Vincent Paul Richards <[vricha@clemson.edu](mailto:vricha@clemson.edu)>

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### EarlhamInst Norwich SplicingEvolution

Nearly all the genes in vertebrates undergo alternative splicing, the process through which different transcripts are generated from a single gene. Despite alternative splicing being common, tissue and developmental stage specific regulation of splicing, and the importance of this mechanism in fundamental biological processes remain little understood.

The aim of the project is to provide a novel understanding of the importance and regulation of alternative splicing in the ADAMTS gene family during development. ADAMTS (A Disintegrin and Metalloproteinase with /thrombospondin type I motifs) proteins are secreted enzymes with roles in tissue morphogenesis and many diseases. The student will use both computational and experimental approaches to annotate and functionally characterize transcripts through in-situ expression assays and gene manipulations in the model organism *Xenopus*.

We offer a highly collaborative PhD project between three research groups (Haerty: bioinformatics, Wheeler: cell and developmental biology, Edwards: developmental and cancer biology) combining computational biology and experimental developmental biology to investigate the diversity and function of alternatively spliced transcripts originating from genes of the ADAMTS family. The PhD student will gain expertise in computational biology, large datasets analysis, transcriptomics, long read sequencing technologies, genetics, microscopy and developmental biology.

This project has been shortlisted for funding by the Norwich Biosciences Doctoral Training Partnership (NR-

PDTP). Shortlisted applicants will be interviewed as part of the studentship competition. Candidates will be interviewed on either the 7th, 8th or 9th January 2020.

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

Please contact Dr Wilfried Haerty: [wilfried.haerty@earlham.ac.uk](mailto:wilfried.haerty@earlham.ac.uk)

For further information and to apply, please visit our website: [https://biodtp.norwichresearchpark.ac.uk/-](https://biodtp.norwichresearchpark.ac.uk/)

Funding Notes For funding eligibility guidance, please visit our website: View Website. Full Studentships cover a stipend (2019/0 rate: ??15,009pa), research costs and tuition fees at UK/EU rate and are available to UK and EU students who meet the UK residency requirements.

Students from EU countries who do not meet the UK residency requirements may be eligible for a fees-only award. Students in receipt of a fees-only award will be eligible for a maintenance stipend awarded by the NR-PDTP Bioscience Doctoral Scholarships. To be eligible students must meet the EU residency requirements.

Wilfried Haerty Group Leader

Norwich Research Park Norwich Norfolk NR4 7UG &#43;44 (0) 1603 450 974 [wilfried.haerty@earlham.ac.uk](mailto:wilfried.haerty@earlham.ac.uk) [www.earlham.ac.uk](http://www.earlham.ac.uk) “Wilfried Haerty (EI)” <[Wilfried.Haerty@earlham.ac.uk](mailto:Wilfried.Haerty@earlham.ac.uk)>

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### ECU Perth PlantGenomics

GraduatePositions: [ECU.PlantGenomics.Snapdragons.Eucalyptus](https://www.ecu.edu.au/schools/science/staff/)

Graduate positions in plant evolutionary genetics/genomics at Edith Cowan University, Perth, Australia.

PhD positions (1-2) are available in the lab of Dr. David Field at Edith Cowan University ([https://www.ecu.edu.au/schools/science/staff/-](https://www.ecu.edu.au/schools/science/staff/)



[profiles/lecturers/dr-david-luke-field](#)) for early or mid 2020 start.

Our lab is broadly interested in questions related to plant evolutionary genetics and ecology. We integrate high-throughput genomics, field-based experiments and theoretical modelling to answer fundamental questions related to local adaptation, speciation, mating systems and genetic rescue.

There are two potential topics for PhD projects using natural hybrid zones as natural laboratories to understand the genetic basis of reproductive isolation:

1. The maintenance of fitness landscapes in the face of gene flow. In this project we are using genotype by sequencing and whole genomes, GWAS and cline theory to understand how divergent traits and heritable fitness variation is distributed in relation to known barrier loci. We are using hybrid zones between *Antirrhinum* (Snapdragons), a tractable model plant with a well-established link from genotype to phenotype. This project is part of an FWF (Austrian Science Fund) grant in collaboration with Prof. Nick Barton (IST Austria) and Prof. Enrico Coen (John Innes Centre). Candidates will be expected to spend some time in the field (with an international team) in the Spanish Pyrenees.
2. Origins and remolding of genomic divergence between frequently hybridizing Eucalypts. This is a diverse genus (~700 species) that dominates the overstorey of Australia and is a key component of many ecosystems on the continent. Ample genetic resources and frequent hybrid zones provides a rich test bed for evolutionary questions related to speciation and the genetic basis of reproductive isolation. Using genome-wide sequence data, we are using demographic modelling and coalescent approaches to build a picture of the history of divergence between four *Eucalyptus* species with replicate hybrid zones in Eastern Australia. Synergies with the snapdragon project will provide opportunities for testing these models in both systems.

Applicants must have prior research experience and a bachelors (with 1st class honours) and/or masters degree in biology, genetics, or other quantitative fields. Ideal applicants are those with experience in evolution, population genetics/genomics and bioinformatics. Reasonable quantitative skills and programming experience is required (e.g. R and/or Python).

Position funding and application: 3.5 years of living stipend is available for both domestic and overseas students through multiple Edith Cowan University schemes (see here for more information: <https://intranet.ecu.edu.au/research/for-research-students/overview>). These positions are funded internally through ECU and the School of Science and include

stipend, health insurance, tuition waiver and relocation expenses (domestic only). Acceptance is contingent on students meeting Edith Cowan University general admission criteria.

PhD candidates must apply through official entry scheme to the School of Science (see research scholarships, ECU Higher Degree by Research Scholarship at <https://intranet.ecu.edu.au/research/for-research-students/opportunities-for-research-students>). Please contact me prior to applying to discuss which project might be best for you. Opportunities for teaching/tutoring and attending ECU courses and conferences. Applications must be submitted by October 25th 2019, although another round of applications will be open mid-2020. Thus, start date is flexible, early 2020 or mid-late 2020.

To inquire about graduate research in my lab please contact me by email ([d.field@ecu.edu.au](mailto:d.field@ecu.edu.au)). Please include a copy of your CV and a brief description of your research interests and experience, and how these interests/experience fits with current research in the lab.

Edith Cowan University is located just 25km north of Perth, a vibrant and multicultural city world renowned for its high standard of living and outdoor lifestyle. An easy going warm Mediterranean climate with pristine beaches and numerous national parks on the doorstep. Located in the South West corner of Western Australia, the region is embedded in one of the world biodiversity hotspots and botanist's playground.

David Field Lecturer, School of Science Edith Cowan University 270 Joondalup Drive Joondalup WA 6027 Australia

David FIELD <[d.field@ecu.edu.au](mailto:d.field@ecu.edu.au)>

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## FreieU Berlin EvolutionHerpesVirus

Genomics, bioinformatics and evolution of inherited chromosomal integrated human herpesvirus6

Project Description

We are inviting applications for a 3-4 year PhD student in the area of bioinformatics and evolutionary genomics of endogenous Human Herpesvirus 6 (HHV-6).

This project uses bioinformatics and evolutionary genomics to unravel the biology of integrated Human Herpesvirus 6. In humans, ~1% carry a heritable HHV-6 genome, which sits in the telomeres of various chro-

mosomes. HHV-6 and the inherited form are involved in various diseases including graft rejection and heart disease. We want to understand the basics of how the genome integrates, why is it maintained through generations and what the consequences of its presence are.

The successful candidate will learn and apply bioinformatics techniques to analyse human genome data containing the viral sequence, in order to understand the evolutionary history and ongoing biology of HHV-6 integration. The project will be supervised by Dr. Amr Aswad and Professor Kaufer in the institute of virology at the Freie University of Berlin. The Kaufer lab consists of range of students and postdocs from international backgrounds and a wide range of interests and skills.

The successful candidate should have a keen interest in genomics and evolutionary biology, as well as an enthusiasm for large scale data analysis. As part of a wider team of virologists, the candidate will have the opportunity to collaborate with wet bench colleagues to generate new data and address questions beyond the scope of computational analyses.

The successful candidate must:

- hold a degree in biology or similar. Candidates from a computer science or similar background will also be considered - Have at least a basic understanding of computer programming (or a willingness to learn!) - Must have strong command of written and spoken English
- Demonstrate sincere interest in the project (research the subject before applying!)

The ideal candidate will:

- Have some experience in the area of computational biology or similar - Have an understanding of evolutionary biology and phylogenetics techniques and theory - have a proven record of independent research skills - have an active interest in the area of next generation sequencing, genomics, bioinformatics, virology

How to Apply :

Please send an email to [amr.aswad@fu-berlin.de](mailto:amr.aswad@fu-berlin.de) with your CV (1-2 pages) and a short paragraph explaining your interest in this project and why you would make a good candidate.

Funding Notes Various funding opportunities depending on country of origin. While there are no tuition fees, self-funded students must be able to maintain living expenses in Berlin.

References 1. Kaufer B, Flamand L. Chromosomally integrated HHV-6: impact on virus, cell and organismal biology. *Curr Opin Virol.* 2014; 2. Wallaschek N, Sanyal A, Pirzer F, Gravel A, Mori Y, Flamand L, et al. The Telomeric Repeats of Human Herpesvirus 6A (HHV-

6A) Are Required for Efficient Virus Integration. *Ling PD*, editor. *PLOS Pathog.* Public Library of Science; 2016;12: e1005666. doi:10.1371/journal.ppat.1005666  
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 5. Aswad, Amr, Katzourakis A. Paleovirology: The Study of Endogenous Viral Elements. In: Weaver SC, Denison M, Roossinck M, Vignuzzi M, editors. *Virus Evolution: Current Research and Future Directions.* 1st ed. Poole: Caister Academic Press; 2016. pp. 273-292. doi:10.21775/9781910190234  
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Dr. Amr Aswad

Einstein Postdoctoral Fellow Institut für Virologie Freie Universität Berlin Robert von Ostertag-Str. 7-13 14163 Berlin, Germany

University of Oxford Zoology Department, The Tinbergen Building, South Parks Road, OX1 3PS Oxford, Oxfordshire

015901940446

“Aswad, Amr” <[Amr.Aswad@fu-berlin.de](mailto:Amr.Aswad@fu-berlin.de)>

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## Geneva Evolution

The PhD School of Life Sciences at the University of Geneva is pleased to announce the Winter Call 2020 for PhD applications, deadline November 15th 2019.

The newly created school strives to educate tomorrow's innovative, independent scientists. The PhD School offers the opportunity to perform research in one of the most innovative universities in the world.

Students will join a multidisciplinary environment, uniting over 130 research groups in 6 competitive programs:

§Ecology and Evolution

§Biomedical Sciences

§Molecular Biosciences

§Pharmaceutical Sciences

§Physics of Biology

§Genomics and Digital Health

Students benefit from core training in their home program and any other training of their choice, including opportunities offered at the partner universities in Lausanne, Fribourg, Neuchâtel, and Berne. The School encourages scientific and social exchange among students in all programs through annual PhD retreats and the PhD Forum.

The PhD School invites applications from motivated candidates all over the world. Applicants should hold or expect to obtain shortly a Master's degree or equivalent from a university in a field of Life Sciences.

Geneva rates among the top ten cities for quality of life, and offers many cultural and sportive opportunities outside PhD life. Students in the research groups of the School are guaranteed a stipend commensurate with the cost of living in Geneva.

Website: <https://lifesciencesphd.unige.ch/> Email contact: [phd-lifesciences-sciences@unige.ch](mailto:phd-lifesciences-sciences@unige.ch)

Application link: <https://apply.lifesciencesphd.unige.ch/login> [phd-lifesciences-sciences <phd-lifesciences-sciences@unige.ch>](mailto:phd-lifesciences-sciences@unige.ch)

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## ImperialC London BirdEvolution

This project combines field work with wild birds, some aviary work with the consequences of spring warming. You will learn to handle small animals, conduct quantitative data analyses and (to a limited extent) analyse laboratory data.

Variation in the gut microbiome is associated with multiple traits in mammals, ranging from behavioural and neurotypical traits to immunity, disease resistance and metabolism. There is also growing evidence that at least some mechanisms are causal, with poor health conditions caused by variation, or changes in the variation, of the gut microbiome. Gut microbiome variation is largely shaped by environmental factors, in particular social environment, and diet. Variation in food source, nutrient composition and nutrient quality, particularly in early life are likely to play a larger role in birds, where chicks hatching from eggs are not primed with the microbiome of their mother. Thus, we can predict variation in the gut microbiome of avian offspring born during periods of temporal fluctuation in prey availability.

Recently, changes in seasonal food availability have become more pronounced for organisms that experience a mismatch between own and prey phenology. Climate change can lead to advancing phenologies, in particular in temperate regions. However, not all organisms manage to adapt to an earlier spring phenology. For instance, seasonal insects, such as certain caterpillars, rely and feed on leaves only during the budburst period in early spring, before they pupate. Birds that forage on these caterpillars to feed them to their offspring typically time their breeding to overlap with the peak occurrence of the preferred prey items. However, with a shift to earlier budburst period the caterpillar occurrence advances to earlier dates. Those birds that struggle to match their breeding time will provide their offspring with different, potentially more diverse food items, and thus develop different gut microbiomes. As the early life gut microbiome of a bird determines its adult gut microbiome, a mismatch in the timing of breeding can have lasting consequences through variation in the gut microbiome.

However, not much is known about the role of the gut microbiome in birds. While we have shown that the early life environment plays an important role contrasting a relatively small role of genetic relatedness, studies

on wild population remain rare. In this project we will test the hypotheses that (a) differences in early life diet affect early life, and adult avian microbiome, that (b) the avian gut microbiome will vary with timing of breeding, and that (c) this can lead to long-lasting fitness consequences.

We will test this using an experimental approach in a wild blue tit population and in aviary birds. The project is based in Silwood Park Campus of Imperial College London. To apply, please email your university transcripts and your degree final outcome, your CV, a letter of motivation, and the email addresses of two potential references to [Julia.schroeder@imperial.ac.uk](mailto:Julia.schroeder@imperial.ac.uk).

Funding Notes: This is a project of Imperial's SSCP DTP. The eligibility criteria are: 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, 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 means they must have been normally residing in the UK (apart from temporary or occasional absences). This does not apply to UK nationals.

Dr Julia Schroeder Senior Lecturer Director MSc Ecology, Evolution and Conservation Senior tutor (PG) Imperial College London, Silwood Park Campus Buckhurst Road, SL5 7PY Ascot, Berks, UK

Julia Schroeder <[julia.schroeder@gmail.com](mailto:julia.schroeder@gmail.com)>

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## KielU Translational Evolution

The research unit Evolutionary Marine Ecology is offering a

\*PhD position (m/w/d)\*

starting on 02.01.2020 or upon agreement. The PhD position (3 years and 2,5 months fixed-term, 65% TV-L E13) is embedded within the Research Training Group \*RTG 2501 Translational Evolutionary Research\* (RTG TransEvo) financed by the German Research Foundation (DFG). The research will be conducted at the GEOMAR- Helmholtz Center for Ocean Research in Kiel.

Evolution is the central theory of the life sciences. The core objective of the RTG TransEvo is to study and

promote its key relevance to applied problems. We aim to adopt knowledge and concepts from fundamental research in evolutionary biology in order to enhance our understanding of current challenges in applied fields, and \*vice versa\*, use novel insights to enrich our understanding of evolution. The RTG TransEvo promotes the translation of evolutionary thinking into three applied fields: medicine, food production and wildlife conservation. The training of the doctoral candidates is explicitly interdisciplinary and organized in tandem projects. Each of these consist of two sub-projects that address a related problem, yet use distinct albeit complementary research approaches, directly generating potential for synergistic interactions. The doctoral projects will be developed together with the selected PhD students.

In the Research Group "Parental investment and immune dynamics, we study the evolution of pregnancy focusing on the unique example of male pregnancy in sex-role reversed syngnathids (pipefishes and seahorses). Syngnathids have evolved on a gradient from external fertilization to full pregnancy and are, thus, ideal to study the evolution of pregnancy. Experimentally we investigate changes in the immune system with male pregnancy evolution and assess its molecular basis. To do so, we combine a diversity of molecular and developmental biological methods, genetic engineering (CRISPR/ cas9) with comparative genomics and transcriptomics.

In this project with Tandem Partner Almut Nebel, we strive to identify the sex-specific link between fertility, pregnancy and longevity. Women are under selection for later menopause and older age at last child, and a growing number of studies show a positive correlation between the age at last birth and healthy longevity of the mother. That brothers of women who have children late also live longer suggests a genetic link between the postponing of sexual selection and ageing, which is further supported by genes that influence both age at menopause and ovary reservoir. Egg production, pregnancy, and breast-feeding are in humans united in maternal investment. In the unique male pregnancy of pipefishes and seahorses, the provisioning of eggs and parental investment are decoupled. Pipefishes and seahorses are thus ideally suited for an experimental validation of how fertility, pregnancy and longevity are connected and to determine, which roles the egg producing females and the pregnant males play.

In this PhD project, we aim to experimentally analyze the late-life fertility/pregnancy and longevity trade-off in the sex-role reversed pipefish \*Syngnathus typhle\* and its sex-specificity. We then want to identify the molecular and functional basis of pregnancy, fertility and longevity in conventional and sex-role reversed lifestyle using transcriptomics and modifications of key preg-

nancy/fertility genes using CRISPR/Cas9. In the tandem project the focus is on humans. There we aim to gain inside into mechanistic and functional processes to identify the molecular basis of the link between fertility, pregnancy and longevity and their associated single nucleotide polymorphisms (SNPs).

Kiel University seeks to increase the proportion of female scientists in research and teaching and therefore explicitly encourages qualified female academics to apply. Priority is given to women who have equal attitude and professional performance.

Kiel University is an equal opportunity employer and encourages scientists with disabilities to apply. Qualified disabled applicants will receive preference in the application process.

We explicitly welcome applications from people with a migration background.

Applications should include: a letter of motivation (max. 1 page), curriculum vitae, the names and addresses of 2 referees (who are familiar with the applicant's work).

We explicitly ask you to refrain from submitting photographs/application photos.

Please send the \*application as a single PDF \*by \*November 19 \*to:

\*Dr. Sabrina Koehler, Am Botanischen Garten 9, 24118 Kiel, +49 (0) 431 880 4148\*

skoehler@zoologie.uni-kiel.de.

As soon as the selection procedure has finished, all your application data will be removed according to data protection regulation.

For further information regarding the position and research unit please contact Dr. Olivia Roth (oroth@geomar.de) or visit our group homepage (

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**LaurentianU Canada**  
**SiberianSwanPops**

Anatomical and Behavioral Responses of Bewick's Swan Populations to Climate Change Impacts in Far-Eastern

Siberia: Micro-Evolutionary and Environmental Influences

We are looking for a Ph.D. scholar with solid statistical skills to analyze global warming induced micro-evolutionary changes in anatomy and behavior in the Bewick's Swan population of the Chukotka region, far north region of eastern Russia. Candidates will be co-supervised by Dr. Frank F. Mallory, Department of Biology, Laurentian University, Sudbury, Ontario, Canada (fmallory@laurentian.ca) and Dr. Diana V. Solovyova, Institute of Biological Problems in the North, Magadan, Russia (diana\_solovyova@mail.ru). Please contact us for information.

Frank Mallory <fmallory@laurentian.ca>

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## Lausanne Comparative Neuroscience

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](http://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 up to 40% of 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 behavioral 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](http://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](mailto:Richard.Benton@unil.ch) or [Thomas.Auer@unil.ch](mailto: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 : 31.10.2019

Only applications through the University of Lausanne job portal will be taken into account. ([https://career5.successfactors.eu/career?career%5fms=job%5flisting&company=universitdP&navBarLevel=JOB%5fSEARCH&rcm%5fsite%5flocale=fr%5fFR&site=VjItQWt5MjVDbnNGNGlkV21MMFpPZDpzd09&careerJobId=14759&selected\\_lang=en\\_US&jobAlertController.jobAlertId=&jobAlertController.jobAlertName=&.s.crb=XBYqHymSPKOyeLuo0fpUKr2zBzQ%3d](https://career5.successfactors.eu/career?career%5fms=job%5flisting&company=universitdP&navBarLevel=JOB%5fSEARCH&rcm%5fsite%5flocale=fr%5fFR&site=VjItQWt5MjVDbnNGNGlkV21MMFpPZDpzd09&careerJobId=14759&selected_lang=en_US&jobAlertController.jobAlertId=&jobAlertController.jobAlertName=&.s.crb=XBYqHymSPKOyeLuo0fpUKr2zBzQ%3d))

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](mailto:thomas.auer@unil.ch)>

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## LehighU HybridizationReproductiveIsolation

The Rice Lab in the Department of Biological Sciences at Lehigh University is recruiting a PhD student to start Fall 2020.

The Rice Lab studies hybridization and reproductive isolation in black-capped and Carolina chickadees. Projects with opportunities for graduate student involvement include our work on how cognition may contribute to selection against hybrids; and research on how local adaptation to climate can contribute to genetic incompatibilities and hybrid breakdown. Our research is collaborative and funded by NSF. Students will have the opportunity to interact with collaborators from several U.S. colleges and universities.

For more information about research in the Rice Lab, follow us on Twitter (@amberricelab) or visit our lab website: <https://wordpress.lehigh.edu/amr511/> Lehigh University is a private research university located in Bethlehem, Pennsylvania, less than 1.5 hours from New York City and Philadelphia. The Department of Biological Sciences offers a PhD in Biology, with the choice of four research concentrations: Cell & Molecular Biology, Neuroscience, Biochemistry, and Evolution & Behavior. PhD students are financially supported through teaching assistantships, research assistantships, and fellowships. Information about faculty research programs and the PhD program can be found at <https://www.lehigh.edu/~inbios/>. Lehigh and the Department of Biological Sciences value diversity in all forms. A variety of initiatives, coordinated by the Office of Diversity, Inclusion, and Equity, aim to grow and support a diverse and inclusive academic community. More information can be found at <https://www1.lehigh.edu/diversity>.

Please contact Amber Rice for more information ([amr511@lehigh.edu](mailto:amr511@lehigh.edu)). The application deadline is January 1, 2020. Students from groups underrepresented in STEM are especially encouraged to apply.



Amber Rice <amr511@lehigh.edu>

Biology, Lund University <https://www.biology.lu.se/-research/research-groups/evolutionary-ecology-of-plant-insect-interactions> Anna Runemark  
<anna.runemark@biol.lu.se>

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## LundU Evolutionary Conservation Biology

4 year attractive PhD-position on integrating an evolutionary perspective and genomic methods to address how insect diversity and evolutionary potential is affected in human-altered landscapes. The position as a graduate student is at Lund University (<https://www.lunduniversity.lu.se>) in the Anna Runemark lab, and can be applied for until November 17th. It is a full time position with a full salary including all social rights. The PhD-student will examine how within-population genetic diversity, evolvability and gene flow are affected in human altered landscapes. We will combine bioinformatics, ancient DNA from museum samples and field work to address these questions. We seek a candidate with a background including both evolutionary courses, bioinformatics or advanced R and with a keen interest in conservation. The exact project will be developed together with the selected candidate, and will be undertaken in collaboration with Erik Svensson, Niklas Wahlberg and Maj Rundlöf. The Department of Biology (<https://www.biology.lu.se/research>) is a highly international working place with a large community of researchers, post docs and more than 80 PhD-students from around the world. The Department has weekly seminars with invited speakers, Friday pubs, social activities and several journal clubs. The Runemark lab consists of two post docs, a PhD-student and one MSc-student and we collaborate closely with Magne Friberg's lab with more pre- and post graduate students and post docs to create a friendly environment for scientific discussion and collaboration, see more about our projects on our joint website <https://www.biology.lu.se/research/research-groups/evolutionary-ecology-of-plant-insect-interactions>. The student will also be a part of a larger research environment BECC (Biodiversity and Ecosystem services in a Changing Climate) which will provide ample opportunities for interactions with conservation biologists and climate researchers.

Please find a link to the application and further information here <https://lu.varbi.com/en/what:job/-jobID:296517/type:job/where:4/apply:1> Contact [anna.runemark@biol.lu.se](mailto:anna.runemark@biol.lu.se) for inquiries.

Anna Runemark, Associate Professor Department of

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## MaxPlanck EvolBio Mathematical Biology

PhD position in Mathematical Biology (3 years)

I am looking for a PhD student to join my research group at the Max Planck Institute for Evolutionary Biology.

Evolutionary dynamics of antibiotic resistance on plasmids

The evolution of antibiotic resistance poses a severe threat to modern healthcare. Clinically relevant resistance is often encoded on plasmids. Plasmids are extrachromosomal DNA elements that can be transmitted vertically or be transferred horizontally between cells. The location of resistance genes on plasmids can lead to special evolutionary dynamics. The aim of the project is to develop mathematical models for the evolution and spread of resistance on plasmids. On the mathematical side, the analysis will mainly be based on branching process theory, complemented by deterministic ODE systems and stochastic computer simulations. The position is part of a DFG-funded Research Training Group (RTG) on "Translational Evolutionary Research". The program brings together 14 research groups from several institutions to study how insights from evolutionary biology can be applied to solve problems in medicine, food production, and wildlife conservation. Projects are organised in tandems who work on related topics. The tandem partner of the proposed project is Professor Tal Dagan (University of Kiel). The student would hence closely interact with a research group that focuses on experimental evolution and data analysis. The ideal student will be one who is interested in applying mathematical modeling to gain insights into biological problems and is enthusiastic about math as well as about biology. The successful student will learn how to set up and analyse theoretical models to describe biological processes and become skilled in using branching process theory as a modeling tool. Applicants should have a background in mathematics, physics, biology, computer science or a related field. Good quantitative skills are essential. Prior experience in mathematical modeling and knowledge of a programming language (C, C++,

Java, R, Python...) is an advantage.

#### Working environment

The student will join a young group at the Max Planck Institute for Evolutionary Biology. In our group, we focus on exploring the role of stochasticity in evolution. In the context of resistance evolution, we closely collaborate with experimental microbiologists at the University of Kiel. The group is part of the Department of Evolutionary Theory. The student will hence be part of a larger community of researchers working at the intersection of mathematics and biology with many opportunities to take part in journal clubs, reading groups etc. The Max Planck Institute is a lively institute with three departments (Evolutionary Theory, Microbial Population Biology, Evolutionary Genetics) and several additional research groups. It hosts several workshops per year and continuously welcomes international short-term and long-term visitors, creating a stimulating and positive research environment. We maintain close interactions with Kiel University and belong to the Kiel Evolution Center. The area is a center of evolutionary biology in Germany.

#### Plön

Plön is a small town, embedded into a beautiful landscape with innumerable lakes and close to the Baltic Sea. The area provides ample opportunity for free time activities such as swimming, canoeing, or biking in a stunning environment. At the same time, the cities of Kiel and Lübeck (â€200,000 inhabitants) are only half an hour train ride away. Hamburg (Germany's second largest city) can be reached within 1.5h by train.

#### Application

Interested students should send their application (motivation letter, CV, copies of certificates, contact details of two references) by email to uecker@evolbio.mpg.de. Please use the code PhD2019-2 in the subject line.

The Max Planck Society strives for gender and diversity equality. We welcome applications from all backgrounds. The Max Planck Society is committed to employing more disabled individuals and especially encourages them to apply. The Max Planck Society seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.

For further questions, please get in contact with Dr. Hildegard Uecker. Application deadline is December 15, 2019. However, the position will remain open until filled by a qualified candidate.

#### Contact:

Dr. Hildegard Uecker Research group Stochastic

Evolutionary Dynamics Department of Evolutionary Theory Max Planck Institute for Evolutionary Biology Website: [web.evolbio.mpg.de/stochdyn](http://web.evolbio.mpg.de/stochdyn) Email: [uecker@evolbio.mpg.de](mailto:uecker@evolbio.mpg.de) Phone: + 49 4522 763-536

Hildegard Uecker <[uecker@evolbio.mpg.de](mailto:uecker@evolbio.mpg.de)> Hildegard Uecker <[uecker@evolbio.mpg.de](mailto:uecker@evolbio.mpg.de)>

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## MaxPlanck Evolbio MathModelsOfCooperation

Our group explores under which conditions individuals cooperate. To this end, we translate social interactions into mathematical games. These games can then be explored analytically, with computer simulations, and with behavioral experiments. We are looking for motivated researchers to join us.

PhD Position (3 years) Mathematical models of cooperation among heterogeneous individuals

One key mechanism for cooperation is reciprocity. People are more likely to help somebody if they have received help in the past. Most existing models of reciprocity assume that all individuals are identical with respect to their cooperation costs, and in how they discount future interactions. The project aims to develop and to analyze models of reciprocity among heterogeneous individuals.

Applicants should have a degree in mathematics, biology, economics, physics, or another related field. They should be curious to describe social behaviors mathematically. Ideally, they are already familiar with the theory of Markov chains and stochastic processes. Good quantitative skills and interest in programming (e.g. Matlab, Python, . . . ) will be important.

Working environment The Max Planck Research Group "Dynamics of Social Behavior" has been established in October 2019, and is led by Dr. Christian Hilbe. The group is a part of the Max Planck Institute for Evolutionary Biology in Plön, Germany. The institute has three departments (Evolutionary Theory, Microbial Population Biology, Evolutionary Genetics) and several additional research groups. It hosts several workshops per year and continuously welcomes international short-term and long-term visitors, creating a stimulating and positive research environment. In addition, the research group maintains strong collaborations with external researchers, including researchers from Harvard University, IST Austria, and the University of Exeter.

Plön is a small town close to the Baltic Sea, embedded into a beautiful landscape with numerous lakes. The area provides ample opportunity for free time activities such as swimming, canoeing, or biking in a stunning environment. The cities of Kiel and Lübeck (â€200,000 inhabitants) are only half an hour train ride away. Hamburg (Germany's second largest city) can be reached within 1.5h by train.

Application Interested students should send their application (motivation letter, CV, copies of certificates, contact details of two references) by email to [hilbe@evolbio.mpg.de](mailto:hilbe@evolbio.mpg.de). Please use the code PhD2019 in the subject line.

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For further questions, please get in contact with Dr. Christian Hilbe. The application deadline is December 15, 2019. However, the positions will remain open until filled by qualified candidates.

Contact: Dr. Christian Hilbe Research Group Dynamics of Social Behavior Max Planck Institute for Evolutionary Biology, Plön, Germany Website: [web.evolbio.mpg.de/~hilbe](http://web.evolbio.mpg.de/~hilbe) Email: [hilbe@evolbio.mpg.de](mailto:hilbe@evolbio.mpg.de)

Christian Hilbe <[hilbe@evolbio.mpg.de](mailto:hilbe@evolbio.mpg.de)>

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## MiamiU Ohio PlantEvoDevo

The Baker Lab (<https://rlbakerlab.com>) in the Department of Biology at Miami University (in Oxford, OH) is recruiting highly a motivated PhD student to study eco/micro evolutionary developmental biology of a threatened *Mimulus* (monkeyflower) starting in Spring or Fall of 2020.

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

or McNair Scholars are highly encouraged to apply and application fees are waived for McNair Scholars.

Successful applicants will have tuition waived and at least one year of support as a research assistant. Teaching assistantships are guaranteed throughout graduate studies (4-6 years total for Ph.D.) as well as generous department support including summer support, research, and conference travel costs.

Interested applicants should contact Dr. Rob Baker at [robert.baker@miamioh.edu](mailto:robert.baker@miamioh.edu). Applicants will need to submit a personal statement, CV, 3 letters of recommendation, GRE scores, proof English proficiency (if applicable), and baccalaureate/MS transcripts via <http://miamioh.edu/graduate-school/admission/>. Robert L Baker Assistant Professor Department of Biology Miami University 700 E High St. Oxford, OH 45056

Miami EEEB & CMSB graduate program affiliate

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

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## MonashU Australia EvolutionSexDisease

PhD Positions in evolutionary ecology at Monash University, Melbourne, Australia.

Two fully-funded PhD positions on themes broadly related to evolutionary ecology and infectious disease are available in Matthew Hall's group at Monash University. Projects in the Hall lab include understanding how global change and infectious disease interact to influence population persistence; contrasting the role of males and females in the evolution of pathogen virulence; and, unravelling how invasion fronts can accelerate or hamper the spread of infectious disease.

Details on how to apply, including more information about the specific projects and the papers that relate to these themes, can be found at <https://lab.mattdhall.com/opportunities> Candidates with experience in evolution, ecology, 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, quantitative genetics, experimental epidemiology, or combinations of the above. The starting date can be any time during the first half of 2020.

For informal queries, contact Matt at

matthew.hall@monash.edu.

The PhD projects are all fully-funded for a period of 3.5 years and are open to both International and Australian/NZ domestic students who have completed an MSc, BSc with Honours or equivalent degree. A stipend (living allowance), tuition fees (normally \$38,900 per year), travel allowances, health insurance, and research funds are all included.

– 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.mattdhall.com Email: matthew.hall@monash.edu  
twitter: @matt\_d\_hall

Matthew Hall <matthew.hall@monash.edu>

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## NatUSingapore ButterflyEvolution

I am looking for a PhD candidate who is interested in exploring the evolution and development of butterfly wing scale colors using single-cell transcriptomics. The deadline for PhD applicants for the August 2020 intake is coming up on November 15. A PhD degree awarded by the Department of Biological Sciences at the National University of Singapore involves 4 years of funded research with some course work and some teaching. Work on this particular project would be funded by a PhD scholarship from the National Research Foundation, Singapore. The Department hosts a large international group of students and has state-of-the-art facilities. Singapore provides balmy and sunny weather throughout and a range of local attractions. If interested please contact Antonia Monteiro at antonia.monteiro@nus.edu.sg and/or also visit the lab webpage at: <http://lepdata.org/monteiro/> antonia.monteiro@nus.edu.sg

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## NorthDakotaStateU PlantEvolutionEcologicalGenomics

A PhD position is available to study adaptive introgression in Poplar with Jill Hamilton at North Dakota State University, as part of a new NSF Plant Genome-

funded collaboration with Jason Holliday (Virginia Tech), Stephen Keller (Vermont) and Matt Fitzpatrick (U of Maryland).

Understanding how interspecific hybridization leads to the generation of complex adaptive traits across environments is a central objective of species management, particularly considering rapidly changing climates. Natural Populus hybrid zones provide a 'living laboratory' to test the impact a long history of natural selection and weak barriers to reproduction have had on the origins of adaptations and the maintenance of species barriers. The graduate student will leverage replicate natural hybrid zone transects between Populus trichocarpa and P. balsamifera spanning the Rocky Mountains in conjunction with modern sequencing (whole-genome resequencing, long and short reads), large common garden experiments, and novel computational approaches to study the genomic and phenotypic consequences of hybridization across environments. Broadly this research will ask: (i) how is introgression arrayed across the genome and landscape? and (ii) what regions of the genome contribute to hybrid fitness and what are their environmental drivers? This project will enhance our understanding of the relationship between adaptive introgression and fitness across environments.

The PhD student will be prepared to combine field-based research monitoring phenotypic trait variation across replicated common garden experiments with genomic analyses (whole genome resequencing), and environmental and spatial data. The ideal graduate student will have some experience in population genomics and/or quantitative genetics. There is plenty of room to pursue particular interests in adaptive introgression and the origin of species barriers depending on the interest and experience of the candidate. The student will be involved in a range of outreach activities associated with the project, including engaging with collaborator institutions and ArbNet (based at the Morton Arboretum, Chicago) to develop educational modules on climate adaptation using Poplar mini gardens planted across the United States. The ability to work independently and a some background in genetics is needed.

For more information on the Hamilton Lab please visit the lab website at: <http://www.jillahamilton.com>. More information on the Department of Biological Sciences at NDSU can be found at <https://www.ndsu.edu/biology/>. Fargo is the largest city in the northern Midwest and as 'Gateway to the West' is a vibrant, growing community that has access to numerous outdoor opportunities for all seasons.

For consideration, please send a cover letter summarizing your research interests and experience, a current



CV, and contact information for three references to Jill Hamilton (jill.hamilton@ndsu.edu) with the email subject line “PhD application: [your full name]”.

This position is funded via the NSF-Plant Genome Research program and includes full tuition waiver plus competitive stipend. Options are available for both US and international students. The start date is flexible with a tentative start date of Fall 2020. Applications are being accepted now and the position will remain open until filled.

– Jill Hamilton, Ph.D.

Assistant Professor Department of Biological Sciences North Dakota State University <http://jillahamilton.com/index.html> jill.hamilton@ndsu.edu

“Hamilton, Jill” <jill.hamilton@ndsu.edu>

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## PurdueU EvolutionaryEcology

We are actively seeking two graduate students to join the lab in 2020 (applications due December 7, 2019). If interested, please contact Mark Christie directly (<http://christielab.bio.purdue.edu/>). Formal descriptions follow below:

Position 1: One PhD position is available in the Christie Lab at Purdue University for highly-motivated candidates interested in rapid evolution, genetic adaptation, conservation and population genetics.

Potential projects include: (1) Examining the rapid genetic adaptation of introduced fishes into the Great Lakes, (2) Identifying the genetic and evolutionary consequences of domestication, captive breeding, and supplementation of wild populations, and (3) Using existing and novel approaches to determine patterns of dispersal and gene flow within a metapopulation context. These are the main research themes in the Christie laboratory, and much research focuses on fishes, but graduate students are free to explore independent lines of inquiry in any system. Previous research experience with molecular techniques, computational work, statistics, genetics, bioinformatics, and assisting with the design and implementation of experiments will be highly regarded.

Position 2: One PhD position is available in the Christie Lab at Purdue University to work on a recently-funded NSF project entitled, Combined spatial and temporal analyses of population connectivity during a northern range expansion. This multi-institution, collaborative

project will use multiple genetic approaches (genomics; RNA-seq) to identify range-wide patterns of population connectivity in the Kellets Whelk (*Kelletia kelletii*) throughout California.

This position will be held in the Department of Biological Sciences at Purdue University, and the student will be advised by Dr. Mark Christie (<http://christielab.bio.purdue.edu/>). The successful applicant will also have the opportunity to work closely with Drs. Crow White at Cal Poly (<http://www.marine.calpoly.edu/faculty/crow-white>) and Rob Toonen at the University of Hawaii (<http://tobolab.org/>). Previous research experience with molecular techniques, computational work, statistics, bioinformatics, gene expression, and assisting with the design and implementation of experiments will be highly regarded.

Purdue University is located in West Lafayette, a small midwestern college town with farmers markets, micro-breweries, and affordable housing. Kayaking/canoeing in nearby rivers is especially fun and biodiversity surprisingly high (> 200 native fish species). West Lafayette is within short driving distance to both Chicago and Indianapolis. Graduate stipends are highly competitive (~24k/year), comprehensive health insurance is included, and cost of living is low.

If you are interested in joining the lab, please contact us directly at markchristie1500@gmail.com with a CV and a brief description of your research interests and experience. Formal applications are due December 7 and on-campus interviews typically occur at the end of January. The biology department no longer requires the GRE.

Mark Christie <markchristie1500@gmail.com>

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## StAndrews SocialEvolutionTheory

== PhD Opportunity: “Theory of social evolution: adaptation of genes, individuals and groups.” School of Biology, University of St Andrews, Scotland.

Fully-funded (research costs + tuition fees + stipend) 3.5 year PhD studentship, for uptake in Sep 2020 (though the start date is flexible).

Natural selection explains the appearance of design in the living world. But at what level is this design expected to manifest 'V gene, individual or group 'V and what is its function? Social evolution provides a window on this problem, because it is in the context of social



interaction that the interests of genes, individuals and groups come into conflict with each other.

I invite applications for a PhD studentship in my research group at the School of Biology, University of St Andrews, Scotland, to develop new theory on the topic of social evolution. The project will suit a Biology graduate with a strong interest in social evolution, but applications from graduates with other backgrounds are also encouraged, and although prior experience in mathematical modelling would be helpful this is certainly not required as the requisite training will be provided.

Current research in my lab involves development of general theory using kin selection, multilevel selection, game theory and theoretical population genetics approaches as well as more specific mathematical and computer simulation models that are tailored to the biology of particular organisms, from microbes to insects to humans. Much of our ongoing work is focused on intragenomic conflicts and associated clinical pathologies, plus the role of sex and gender in social evolution. See the lab website (<https://synergy.st-andrews.ac.uk/-gardner/>) for more details.

If evolutionary biology really fascinates you, and you are a careful thinker, then you will flourish in the kind of project that I enjoy supervising.

This studentship is funded by the European Research Council and the School of Biology at the University of St Andrews. There are no nationality restrictions on who can apply, and the studentship will cover both Home and Overseas tuition fees.

See <https://twitter.com/drandygardner/status/1181483940919545856> for further details. Please direct informal enquiries to me at [andy.gardner@st-andrews.ac.uk](mailto:andy.gardner@st-andrews.ac.uk).

Best wishes,

Andy Gardner

– Andy Gardner Professor of Biology University of St Andrews Dyers Brae St Andrews KY16 9TH United Kingdom

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

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

## StockholmU SexualSelection

PhD position in Sexual Selection at Stockholm University

APPLICATION DEADLINE: November 5, 2019

Sexual selection and conflict

A fully funded 4-year PhD position on the evolution of sexual selection and sexual conflict is available in Professor Rhonda Snook's group, Department of Zoology, Stockholm University.

Sexual selection and sexual conflict results in the rapid (co)evolution of male and female reproductive traits, such as female remating behavior and male ejaculate proteins. A long standing question in evolutionary biology is to understand the genetic basis of such rapid change. This project aims to address this question by understanding both coevolutionary dynamics and their genetic underpinings. This question will be addressed by investigating the role of sexual conflict and sexual coevolution in fruit flies. The project will leverage quantifiable female and male sexually selected traits to uncover their genetic architecture using *Drosophila* populations whose genome is sequenced and assessing natural variation of focal traits in different species. Snook's group has carried out lab-based research on these general questions in several different fly species and the project will extend that work to new traits using new techniques. Research will involve lab based behavioural and physiological assays and quantitative genetics, with the potential for other approaches such as phylogenetic comparative work and experimental evolution. The PhD student will be expected to play a central role in developing the project.

The ideal candidate for this project will have a strong background in evolutionary ecology and genetics with a demonstration of capacity for research (including publications). The PhD student will have opportunities to learn both general and specific skills required for the project and opportunities to work with collaborators. This is an international call. Stockholm University's Department of Zoology is a vibrant international and interactive community. Working language in the lab is English.

For informal queries, contact Rhonda on [rhonda.snook@zoologi.su.se](mailto:rhonda.snook@zoologi.su.se)

Details about research in Rhonda Snook's lab can be found here: <https://www.su.se/english/>

[profiles/rhsn2867-1.348903](https://www.su.se/english/about/working-at-su/-phd?rmpage=job&rmjob=10183&rmlang=UK) Details to apply, including more about the project, are available here: <https://www.su.se/english/about/working-at-su/-phd?rmpage=job&rmjob=10183&rmlang=UK> or

<https://www.su.se/english/about/working-at-su/phd> Then find 'PhD student in Ecology', 'Department of Zoology'

Rhonda R Snook Professor Ecology Division Department of Zoology Stockholm University, Sweden

Rhonda Snook <[rhonda.snook@zoologi.su.se](mailto:rhonda.snook@zoologi.su.se)>

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## StonyBrookU EvolutionaryBiol

### GRADUATE OPPORTUNITIES IN ECOLOGY AND EVOLUTIONARY BIOLOGY

The Graduate Program in Ecology and Evolution < <http://www.stonybrook.edu/ecoevo/index.html> > at Stony Brook University < <http://www.stonybrook.edu/ecoevo/index.html> > is recruiting doctoral and master's level graduate students for Fall 2020.

The department has a long and distinguished history, being one of the first of its kind. It currently has a productive and diverse faculty working on broad array of questions involving microbes, plants, vertebrate and invertebrate animals and whole ecosystems. Field locales span the globe from the old and new world tropics to the Arctic and Antarctic polar regions, as well as the uplands, wetlands and coastal areas of Long Island and nearby New York City. We offer research and educational opportunities through many other prestigious local institutions, such as the American Museum of Natural History, Cold Spring Harbor and Brookhaven National Laboratory.

Upon admission, PhD students are guaranteed teaching assistantships upon acceptance, with additional support available through fellowships and research assistantships, as they become available. The deadlines for applications are Dec. 1, 2019 for the PhD program. Admissions to the MA program are rolling until April 15, 2020.

Below is a listing of current local program faculty to whom questions can be directed. It is highly recommended that PhD applicants contact potential advisors before submitting your application. For questions or assistance with the application process please e-mail our Graduate Program coordinator, Melissa Cohen [melissa.j.cohen@stonybrook.edu](mailto:melissa.j.cohen@stonybrook.edu).

### DEPARTMENTAL FACULTY

H. Resit Akcakaya - Population and conservation ecology <http://life.bio.sunysb.edu/ee/akcakayalab/> Stephen B.

Baines - Aquatic ecosystem ecology and biogeochemistry <http://life.bio.sunysb.edu/ee/baineslab/> Liliana M.

Dávalos - Vertebrate phylogenetics, biogeography and conservation [http://lmdavalos.net/lab/The\\_Lab.html](http://lmdavalos.net/lab/The_Lab.html)

Walter F. Eanes - Evolutionary genetics of *Drosophila*

<http://life.bio.sunysb.edu/ee/eaneslab/> Jessica Gurevitch - Research synthesis, plant population and invasion ecology <https://gurevitchlab.weebly.com/> Jesse D.

Hollister - Plant evolutionary genomics and epigenetics <https://genomeevolution.wordpress.com/> Jeffrey S.

Levinton - Marine ecology and paleobiology

<http://life.bio.sunysb.edu/marinebio/-levinton.main.html> Heather J. Lynch - Quantitative

ecology and conservation biology <https://lynchlab.com/> Ross H. Nehm - Science education, evolution education,

cognition

[https://www.stonybrook.edu/commcms/ecoevo/-people/faculty\\_pages/nehm.html](https://www.stonybrook.edu/commcms/ecoevo/-people/faculty_pages/nehm.html) Dianna K. Padilla -

Marine and freshwater ecology, conservation and invasion biology <http://life.bio.sunysb.edu/ee/padillalab/>

Joshua Rest - Evolutionary genomics <http://life.bio.sunysb.edu/ee/restlab/Home.html> Tara M.

Smiley - Paleoecology and biogeography

<https://www.tarasmiley.com> Pascal Title - macroevolution and spatial macroecology

<https://www.pascaltitle.com> Robert W. Thacker - Systematics, phylogenetics, and ecology <https://thackerlab.weebly.com/> John R. True - Evolutionary

developmental biology [https://www.stonybrook.edu/commcms/ecoevo/people/faculty\\_pages/true.html](https://www.stonybrook.edu/commcms/ecoevo/people/faculty_pages/true.html) Krishna M. Veeramah - Primate comparative genomics

<http://life.bio.sunysb.edu/ee/veeramahlab/> Natasha Vitek - Evolution and variation in vertebrate fossils

<http://www.nsvitek.com/> PROGRAM FACULTY IN OTHER DEPARTMENTS

Jackie Collier - Microbial ecology

<https://you.stonybrook.edu/collierlab/> Nolwenn M.

Dheilly - Evolution of Host-Parasite Interactions <https://you.stonybrook.edu/dheilly/> Andreas Koenig - Behavioral ecology of primates

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## TexasAMU EvolutionaryBiology

The Interdisciplinary Degree Program in Ecology and Evolutionary Biology (EEB) at Texas A&M University offers a Ph.D. in the field of Ecology and Evolution. We offer a world-class training program that incorporates fields relevant to EEB, spanning evolutionary genomics to animal behavior to landscape ecology. Our faculty and students are associated with 11 departments and 7 colleges across Texas A&M University, bringing together a diverse array of perspectives. The Doctoral Program in EEB Faculty includes over 60 core faculty members and approximately 30 associate members, from diverse backgrounds and a multitude of research interests. In our Program, students are exposed to an international community of scholars, allowing them to explore different perspectives in the field of Ecology and Evolution. Our faculty's primary goal is to guide students on their journey to research independence, and they are committed to excellence in education and science.

Texas A&M University is a long-established research university with a 21st century research infrastructure. As the country's best-funded land-grant university, Texas A&M possesses an ample and effective life-sciences research infrastructure. EEB doctoral students have access to core facilities for genomics, molecular biology, stable isotopes, and microscopy. They may also take advantage of the world-renowned herbarium, insect collection, and vertebrate collection, as well as the network of affiliated experimental stations around Texas and the world. Our high-performance computing resources and GIS labs enable cutting edge research at all scales.

An important part of graduate training involves interacting and participating in the scientific community. Our faculty guides EEB doctoral students as they develop into productive members of the research community, which starts with a series of EEB core courses, ranging from physiological ecology to evolutionary genomics, taught by experts in each field. Additionally, first year students travel to our Mexico research station as part of our winter field course experience. EEB also offers numerous opportunities for professional and social interactions. A seminar series permits students to learn about the latest research and meet scientists from around the globe. The Journal Club is an opportunity to discuss scientific articles in relevant disciplines with peers and faculty. Scientific events, such as the

nationally-recognized annual spring Ecological Integration Symposium and the fall Open Source for Open Science Workshop provide an excellent opportunity for professional development. Finally, Texas A&M University has a vibrant campus with numerous opportunities for social interactions and the EEB Interdisciplinary Student Organization hosts social events in the fall and spring to promote integration among students in the life sciences with EEB interests.

The Doctoral Program in EEB offers ample funding opportunities for graduate studies, and students can benefit from a full stipend while in the Program. Support comes from nationally competitive funding packages consisting of teaching assistantships, research fellowships, and internal merit fellowships. Doctoral students are eligible for medical insurance and in-state tuition, which is waived for students with teaching assistantships and merit fellowships. We encourage you to contact your prospective mentor about specific options for support.

Applications to the Doctoral Program in EEB should be submitted by December 9th to ensure full consideration. Applicants will be evaluated based on their personal statement, grade point average, TOEFL scores (international students only), letters of recommendation, as well as previous research experience. Prospective students should indicate which EEB core faculty members share similar interests. We also encourage prospective students, as they are putting together their application package, to reach out to these faculty members. Travel grants to visit Texas A&M, meet with the faculty and graduate students, and explore available resources and facilities are available to outstanding prospective students.

To learn more, please visit [eeb.tamu.edu](http://eeb.tamu.edu) or contact Nick Jacobsen (Program coordinator) at [njacobsen@tamu.edu](mailto:njacobsen@tamu.edu)

Jessica Light <[jligh2@tamu.edu](mailto:jligh2@tamu.edu)>

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## TexasStateU SanMarcos PopulationBiol

Texas State University Department of Biology

Attention prospective graduate students:

Faculty in the Population and Conservation Biology (PCB) M.S. program at Texas State University are actively recruiting new students for Fall 2020. The PCB program promotes strong mentor-student relationships

and student-led research utilizing a variety of study systems. The program offers coursework in core areas of ecology, evolutionary biology, population genetics and animal behavior, and provides training in genomic analyses, GIS and dynamical systems modeling. Our graduates are employed in government agencies, environmental consulting firms, and nonprofit organizations, and many alumni have gone on to enroll in a multitude of Ph.D. programs nation-wide.

In order to apply, first review the research interests of Texas State Biology professors

(<https://www.bio.txstate.edu/about/Faculty—Staff.html>)

and then contact a faculty member with whom you might be interested in working. Graduate students in the program are supported as Instructional (Teaching) Assistants and/or from research grants obtained by the faculty members. A number of in-house academic scholarships and research grants are also available for students as well.

<https://www.bio.txstate.edu/Student-Resources/-Department-Scholarships.html> Texas State University is located in San Marcos, a fun friendly college town not too far from San Antonio (50 miles) and Austin (30 miles). This part of Texas is rich in biodiversity, habitat types, outdoor recreational opportunities, and boasts unique arts and culture scene. For more information on admissions see:

<https://www.gradcollege.txstate.edu/admissions.html> For more information on the Population and Conservation Biology program and how to apply, see

<https://www.bio.txstate.edu/Graduate-Programs/-M.S.PopulationConservationBiology.html>, or contact the program director Dr. Noland Martin.

nm14@txstate.edu.

Noland H. Martin, PhD Dept. of Biology Texas State University 601 University Drive San Marcos, TX 78666-4684 Office: 512-245-3317 Fax: 512-245-8713

“Martin, Noland” <noland.martin@txstate.edu>

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## TrentU 2 PopGenomics MolEcol

PhD in Population Genomics, Trent University

Supervisor: Aaron Shafer, Environmental and Life Sciences Graduate Program. Lab webpage: <http://->

[www.aaronshafer.ca/](http://www.aaronshafer.ca/) Anticipated start date is Sept 2020.

I am seeking to recruit a motivated PhD candidate to analyze range-wide population genomic data of white-tailed deer. The project will focus on characterizing genomic signatures of edge and isolated populations, while expanding on previous work that identified genes underlying antler morphology and body size. The project will involve basic lab work and bioinformatics analyses on a large computer cluster; the successful applicant will be able to expand on the demographic and adaptive analyses to address fundamental questions in population genetics. Applicants should have an interest in evolutionary biology, population/conservation genetics, and wildlife. Candidates must have completed a BSc (or BSc + MSc) degree, with some bioinformatics or population genetics experience preferred but not essential. MSc applications will be also be considered.

General inquiries should be sent to Aaron Shafer (aaronshafer@trentu.ca). Applications should use the subject line: “Deer Graduate Project” and include a brief statement of research interests and related experience, plus a copy of their current CV and academic transcripts.

MSc/PhD in molecular ecology, Trent University

Supervisors: Dr. Marcel Dorken and Dr. Joanna Freeland, Dept. of Biology; Dr. Aaron Shafer, Forensic Science Program

We are seeking to recruit a motivated MSc/PhD candidate to develop genomic markers and use them to characterize hybridization dynamics in a well-studied cattail species complex that in Canada comprises *Typha latifolia*, *T. angustifolia*, and their invasive hybrid *T. x glauca*. This will initially involve lab work and bioinformatics analyses for identifying numerous SNP markers, with the scope to build on this by addressing one or more questions pertaining to hybrid fitness and hybrid breakdown as it relates to invasive plants. Applicants should have an interest in evolutionary biology, wetland plants, and molecular analyses. Candidates must have completed a BSc (or BSc + MSc) degree in biology, with some bioinformatics experience preferred but not essential.

Interested candidates should contact Joanna Freeland (joannafreeland@trentu.ca) for more information, or send (via e-mail) a statement of research interests and related experience, plus a copy of their current CV and academic transcripts.

Aaron Shafer <aaronshafer@trentu.ca>



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## UAlabama BeeGenomics

PhD positions to study the omics cascade of bumble bee cold tolerance

Funding for PhD students is available at The University of Alabama as part of a recently awarded NSF Rules of Life project: Bumble bee cold tolerance across elevations - From epigenotype to phenotype across space, time, and levels of biological organization. PhD students will be involved in studying the links between genomic, epigenomic, transcriptomic, and metabolomic variation in relation to local thermal tolerance adaptation in montane bumble bees (lozierlab.ua.edu). The project will involve extensive high throughput sequencing of bees from wild populations and experimental colonies and the use of approaches like network theory to model and draw inferences from these complex data. Students will develop questions relating to ecological, evolutionary, or conservation genomics within the broader project objectives. The focus of the positions is flexible, and we expect there will be a great deal of collaboration and overlap among students, postdocs, and PIs on the project.

I am looking to recruit highly motivated students with interests in applying modern molecular and computational tools to address ecological and evolutionary questions in a non-model organism. Applicants should have a strong academic record (GPA > 3.0), an ability for clear verbal and written communication, and a desire to learn new skills! Students funded off the grant will participate in both laboratory molecular work (primarily generation of RNAseq and genome/epigenome sequencing libraries) and computational analyses, and applicants should thus have some degree of experience or interest in both aspects of the project.

The project will involve collaborations with Janna Fierst at UA, Michael Dillon and Franco Basile at the University of Wyoming, and James Strange at Ohio State. As part of these collaborations there may be opportunities for field work or experimental work with bumble bees, depending on student interests and expertise.

Contact Jeff Lozier (jlozier@ua.edu) for more information. Anticipated start date will be Fall 2020, but we're flexible.

Useful Links: Lozier Lab: lozierlab.ua.edu U Alabama Biological Sciences: bsc.ua.edu

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

"Lozier, Jeffrey" <jlozier@ua.edu>

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## UAlmeria Spain EcoEvolutionaryBioinformatics

Possibility for PhD position on eco-evolutionary bioinformatics (University of Almería and EEZA-CSIC, Almería, Spain)

Deadline to accept candidates: November 10th 2019

Are you a recently-graduated computer scientist who happens to be interested in nature, animals, animal behavior, ecology, evolution, the environment? or specific topics, such as the extinction of the dinosaurs, or how to improve biological pest control?

Then you could be interested in this opportunity to apply for a 4-year PhD scholarship to work on improving a Next-Generation Individual-Based model, Weaver, and bring it to the next level: parallel computing. With parallelization we will be able to scale up simulations to include larger and more complete ecosystems including up to tens of millions of individuals. We seek for a highly motivated computer scientist from EU countries, and will only consider applicants having completed (or currently on their last year of) a MS in Computer Sciences, preferably on parallel computing or similar disciplines.

The candidate should have finished his/her undergrad after January 1st 2016, and hold top academic qualifications (i.e., within the top 10% of his/her undergraduate graduating class).

Annual salary (before taxes): 1st year: 16,027.58€; 2nd year: 17,279.5€; 3rd year: 21,599.48€; 4th year (having defended the PhD): 28,640.91€; 4th year (without PhD defense): 21,599.48€.

Success of the candidate will be eligible after a nationwide open competition based on their academic qualifications, research experience, their research team and the quality of his/her proposed research. More details on the call will be delivered upon contacting the research team.

Contact: Jordi Moya-Laraño (jordi@eeza.csic.es); Leocadio G. Casado (leo@ual.es); Juana López-Redondo (jlr526@ual.es).



References: Bilbao-Castro, J.R., Barrionuevo, G., Ruiz-Lupión, D., Casado, L.G., Moya-Laraño, J.: Weaver: a multiagent, spatial-explicit and high-performance framework to study complex ecological networks. In: Bajo, J., Hallenborg, K., Pawlewski, P., Botti, V., Sánchez-Pi, N., Duque Méndez, N.D., Lopes, F., Julian, V. (eds.) PAAMS 2015. CCIS, vol. 524, pp. 139-150. Springer, Cham (2015)

Grimm, V.; Ayllón, D. & Railsback, S.F. (2017). Next-Generation Individual-Based Models Integrate Biodiversity and Ecosystems: Yes We Can, and Yes We Must. *Ecosystems*, 20: 229-236. Moya-Laraño, J.; Verdeny-Vilalta, O.; Rowntree, J.; Melguizo, N.; Montserrat, M., Laiolo, P. 2012. Climate Change and eco-evolutionary dynamics in food webs. *Adv. Ecol. Res.* 47:1-80.

Moya-Laraño, J.; Bilbao-Castro, J.R.; Barrionuevo, G.; Ruiz-Lupión, D.; Casado, L.G., Montserrat, M.; Melian, C.; Magalhaes, S. 2014. Eco-evolutionary spatial dynamics: rapid evolution and isolation explain food web persistence. *Adv. Ecol. Res.* 50:75-143.

Jordi Moya-Laraño

Functional and Evolutionary Ecology Estación Experimental de Zonas Áridas - CSIC Carretera de Sacramento s/n La Cañada de San Urbano 04120-Almería Spain

phone:34 950281045 ext. 419 email: jordi@eeza.csic.es [www.eeza.csic.es/foodweb](http://www.eeza.csic.es/foodweb) De: Jordi Moya Laraño Enviado: domingo, 27 de octubre de 2019 9:32 Para: [evoldir@evol.biology.McMaster.CA](mailto:evoldir@evol.biology.McMaster.CA) Asunto: PhD position in eco-evolutionary bioinformatics Asunto: PhD position in eco-evolutionary bioinformatics

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## UArizona HostParasiteInteractions

Graduate student opportunities in the evolutionary genetics of host-parasite interactions at the University of Arizona

The Schlenke Lab studies host-parasite interactions using *Drosophila* (fruit flies) as model hosts. We have developed parasitoid wasps, which lay their eggs in fly larvae and consume their hosts from the inside out, as model parasites. Flies mount cellular and behavioral defense responses against wasps, but wasps have adaptations for finding host fly larvae, suppressing host immunity, and manipulating host behavior. We use a variety of “omics” tools to understand the molecular genetics of fly-wasp interactions, and look for patterns of immunity and virulence coevolution across fly and

wasp phylogenies. For more information, visit our lab website at: <https://cals.arizona.edu/research/schlenke/>

If you are interested in our lab please contact Todd Schlenke ([schlenke@email.arizona.edu](mailto:schlenke@email.arizona.edu)). Candidates may apply through the Entomology and Insect Science (EIS) Graduate Program (<https://insects.arizona.edu/>) or the Ecology and Evolutionary Biology Graduate Program (<https://eeb.arizona.edu/grads>). The application deadline for both programs is December 1st.

Dr. Todd Schlenke Associate Professor University of Arizona Department of Entomology Department of Ecology and Evolutionary Biology <https://cals.arizona.edu/research/schlenke/> 520-621-7167

Todd Schlenke <[schlenke@email.arizona.edu](mailto:schlenke@email.arizona.edu)>

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## UAuckland PhylogeneticBiogeography

I'm reposting this PhD advert as it is still open. I'd like to have applications in (at least preliminary applications, e.g. if a Masters degree is pending you can still apply) by December 1.

Research Project Introduction

Funded PhD project: Improving model-based inference in phylogenetic biogeography

A fully-funded PhD scholarship is available at the University of Auckland to work on improving and testing new models and methods in phylogenetic biogeography. Phylogenetic biogeography is the study of how the geographic ranges of species change over millions of years. Modern methods are based on probabilistic models, where the importance of various processes is statistically inferred from the data, and these inferences are used to estimate the history of each clade.

Such methods are used in hundreds of studies a year, and the results of such studies provide information about how species have evolved in response to plate tectonics and climate change, and have implications for topics such as epidemiology and conservation in world with invasive species and global warming. However, available methods have many limitations, especially in their treatment of (1) extinction, (2) fossils, and (3) palaeogeography. The PhD student will collaborate with Dr. Matzke to produce new methods that allow new phylogenetic biogeography models to make use of resources such as the Paleobiology Database and the open-source plate-tectonics software, GPLates.

Conducting this research in New Zealand is especially attractive, as it has a long history of fascinating debates about the geographic history of the flora and fauna of New Zealand and Gondwanaland, so there is a large scientific and public interest in biogeographical questions. New Zealand also has a long history of being at the leading edge of statistical phylogenetics. The University of Auckland has an international reputation, and was 85th worldwide in the 2018/19 QS World University Rankings.

#### Research Project Objectives

The detailed plan for the PhD research project will be developed in collaboration with the student in line with their specific interests, but the funded project is aimed at these overall goals:

1. Devise and test new models for inference of biogeographic history at macroevolutionary timescales
2. Use these models to combine standard, DNA-based dated phylogenies to data sources such as the Paleobiology Database and GPlates to test and improve inferences
3. Help to develop and teach the resulting software package
4. Present this work in peer-reviewed publications and at regional and international meetings

#### Criteria for successful applicant

Students should have the equivalent of a Masters-level qualification or the equivalent of a bachelors degree with honours, and satisfy the English requirement (see Entry Requirements at: <https://www.auckland.ac.nz/en/study/study-options/find-a-study-option/doctor-of-philosophy-phd.html> ). Prior coursework or research experience in any of these areas will be helpful, but not required: evolution, phylogenetics, biogeography, statistics, programming / bioinformatics, Geographic Information Systems.

If you are interested, and think you qualify (or could soon qualify), please email Nick Matzke at [n.matzke@auckland.ac.nz](mailto:n.matzke@auckland.ac.nz) .

#### Other information

Auckland has continuous, rolling admissions, and a candidate will be selected as soon as possible, so interested students should apply immediately to the U. Auckland School of Biological Sciences (SBS) at: <https://www.auckland.ac.nz/en/study/study-options/find-a-study-option/doctor-of-philosophy-phd.html>

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The scholarship covers fees and (if international) health insurance, as well as \$27,900 per annum

stipend. The regulations of this PhD scholarship are available at: <https://www.auckland.ac.nz/en/study/scholarships-and-awards/find-a-scholarship/-university-of-auckland-marsden-grant-phd-scholarship-phylogenetic-biogeography-1027-sci.html> I'd like to have applications in by December 1, 2019. (Note that you can submit an application before fully qualifying, e.g. you might be provisionally admitted contingent on finishing of a Master's degree.)

(Note: Depending on circumstances, a student may be eligible for other appropriate scholarships as well; this decision is made by a committee after the application to the PhD programme has been received. Therefore, applicants should indicate their background and interest in this topic in their application proposal, and also email Dr. Matzke at

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## UBarcelona ChordateEvoDevoGenomics

Seeking candidate for PhD fellowship OPEN CALL to join our EvoDevoGenomics lab in the University of Barcelona.

Project Topics: Heart development, early embryo 4D-imaging, developmental responses to environment.

Approaches: Single-cell transcriptomics, RNAseq, Knock-downs, CRISPR, Fluorescent-Microscopy

Contact: ASAP [canestro@ub.edu](mailto:canestro@ub.edu) (deadline call oct 13th)

See full post in: <https://thenode.biologists.com/phd-fellowship-open-call-to-join-our-lab-on-evodevogenomics-in-barcelona/jobs/> Cristian Cañestro Professor of Genetics Section of Biomedical, Evolutionary and Developmental Genetics Department of Genetics, Microbiology and Statistics Facultat de Biologia, Universitat de Barcelona Av. Diagonal 643, 08028, Barcelona, Spain office: +34 93 402 1501; lab: +34 93 403 3704 [canestro@ub.edu](mailto:canestro@ub.edu) <http://evodevogenomics-unibarcelona.weebly.com/> @evodevogenomeUB

Cristian Cañestro <[oikocris@gmail.com](mailto:oikocris@gmail.com)>

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## UBasel HostParasiteEvolution

\*University of Basel, Switzerland \*Department of Environmental Sciences, Zoology

PhD-position in host-pathogen interactions is available in the group of Dieter Ebert at Basel University, Basel, Switzerland.

I am looking for a highly motivated candidate with interests in evolutionary genomics and host-microbe interactions. The PhD project is concerned with the coevolution of a bacteria with its host *Daphnia*. The aim of the project is to gain insights into the genetic interactions underlying the coevolution of the bacteria *Pasteuria ramosa* and its *Daphnia* host using experimental and genomic approaches. The position is supported by the Swiss National Science Foundation and the University of Basel. The Ebert research group covers the entire range from epidemiological and ecological aspects of host-parasite interactions, to studies on the population genetics and genomics of hosts and microbes.

Starting date for the PhD is negotiable (any time from January 2020 onwards). The working language in the group is English. Speaking German is helpful in every day life in Basel, but is not a requirement.

Please send your application by email (all material in one PDF please) to Dieter Ebert. Applications should include a motivation letter, a CV, a list of publications and a statement about research interests. Please give names and email addresses of two (or more) persons who are willing to write a letter of recommendation. Application deadline is 1. November 2019.

Further information and address for application: Prof. Dr. Dieter Ebert, University of Basel, Department of Environmental Sciences, Zoology, Basel, Switzerland. Email: [dieter.ebert@unibas.ch](mailto:dieter.ebert@unibas.ch) Web: <http://evolution.unibas.ch/ebert/> – Dieter Ebert University of Basel, Department of Environmental Sciences, Zoology Vesalgasse 1, CH-4051 Basel, Switzerland <http://evolution.unibas.ch/> Email: [dieter.ebert@unibas.ch](mailto:dieter.ebert@unibas.ch) Tel. +41-(0)61-207 03 60

Dieter Ebert <[dieter.ebert@unibas.ch](mailto:dieter.ebert@unibas.ch)>

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## UBern GenomeDiversity

PhD position on the “effect of genetic surfing on the neutral and functional genomic diversity of modern and ancient genomes”

A 4 years PhD position is available from January 15th 2020 at the University of Berne to study the effect of past range expansions on whole genome diversity. The student will use existing programs to precisely define how the genetic surfing of particular neutral or functional alleles affects surrounding genomic diversity during and after range expansions. He/she will use machine learning approaches to distinguish between the effects of genetic surfing and selection on whole genome diversity. These results will be used to infer the processes that have affected the genomes of ancient and archaic individuals, using existing human genomic databases as well as ancient human genomes specifically generated in our lab in collaboration with Joachim Burger from the University of Mainz. This project will also benefit from collaborations with Dr. Mathias Currat (University of Geneva, for software development) and Profs. Eske Willerslev and Martin Sikora (Univ. of Copenhagen, for aDNA).

We are looking for a highly motivated and PhD candidate to join our very international lab. The ideal candidate will have a MSc in computational biology, bioinformatics, population genetics or statistics and good knowledge of R scripting. Some experience in C/C++ programming would be a plus.

The successful candidate is also expected to be involved in light teaching (TA). Gross salary is in the range of 40K CHF per year and follows the Swiss NSF scale. The CMPG lab (<https://www.cmpg.iee.unibe.ch/>)— offers a very stimulating research environment with access to high performance computation facilities and close connections with the Swiss Institute of Bioinformatics. Berne is ideally located in the middle of Switzerland and Europe, and provides rich cultural and outdoor activities.

Please send before October 31st 2019, an application letter, CV and contact information of two references to [laurent.excoffier@iee.unibe.ch](mailto:laurent.excoffier@iee.unibe.ch). Further information can be requested at the same email address

– Laurent Excoffier

Computational and Molecular Population Genetics

(CMPG) Institute of Ecology and Evolution, University of Bern 6, Baltzerstrasse, CH-3012 Bern, Switzerland Tel: +41 31 631 30 31 Email: laurent.excoffier@iee.unibe.ch <http://cmpg.iew.unibe.ch> Computational Population Genetics Swiss Institute of Bioinformatics (SIB) [http://www.isb-sib.ch/groups/-Computational\\_Population\\_Genetics.htm](http://www.isb-sib.ch/groups/-Computational_Population_Genetics.htm) Laurent Excoffier <laurent.excoffier@iee.unibe.ch>

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## UCLouvain MolecularEcolEvolution

We are looking for highly motivated candidates to apply for a PhD-project in Molecular Ecology and Evolution, funded through the Fonds National de Recherche Scientifique (FNRS -ASPIRANT), 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. Using a fly-parasitizing wasp, we will first elucidate the exact physiological conditions leading to this phenotype; and second we will use an 'omics' approach (RNA-sequencing, epigenetic marking) to identify the molecular mechanisms responsible for switching fat synthesis on and off. The work will include maintenance of and experiments with different host and parasitic wasp populations, field work, and laboratory work including various physiological and molecular measures.

The ideal candidate for this position will have a strong background in evolutionary ecology, skills in molecular biology and a capacity for creative and critical thinking. The PhD student will have opportunities to learn general and specific skills required for the project and opportunities to work with collaborators. Applicants should hold a MSc diploma (120EC) or will finish their studies before the starting date of the grant, October 1st 2020. Only applicants within the top 15% can apply successfully for this grant scheme. Applications will be reviewed until the position is filled.

The salary will be around 2000 euro netto per month plus benefits (health insurance, 'Ã'), 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 <http://www.uclouvain.be/en-index.html> 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 degrees, subjects included in degree and grades, average grade, and skills); 3) Contact details of at least 2 referees.

Prof. Dr. Bertanne Visser, Chercheuse Qualifi e 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](http://www.bertannevisser.nl) Bertanne Visser <bertanne.visser@uclouvain.be>

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## UExeter Cornwall LifeHistoryEvolution

Disentangling the drivers of life-history evolution in the wild: Artificial selection meets natural selection in a unique avian island population

Competitively funded PhD position, based at the Centre for Ecology and Conservation at the Cornwall Campus of the University of Exeter.

Supervised by Dr Erik Postma (University of Exeter), and co-supervised by Dr Jon Bridle (University of Bristol), Dr Jinliang Wang (Zoological Society of London), Prof Marcel Visser and Prof Arie van Noordwijk (Netherlands Institute of Ecology)

\* Project background \*

Despite a large body of theory describing how genetic variation and selection shape adaptive evolution, theoretical predictions often appear to be at odds with what we observe in real-world populations. Although the apparent ubiquity of so-called evolutionary stasis (i.e. selection and heritability but no evolution) has triggered many attempts to refine our predictions by incorporating the complexities that are typical of wild populations, this crucially assumes that evolution is in essence predictable. However, is natural selection strong enough to overcome the effects of random drift and gene



flow, especially in small populations? Being able to answer this question is crucial if we are to advance our understanding of the ability of populations to persist in a world changing at unprecedented rates, and the evolutionary process in general.

In this project you will quantify the roles of natural selection, gene flow and drift in shaping the evolutionary dynamics of clutch size, a key life-history trait. You will do this by capitalising on i) over 60 years of individual-based data for an island population of great tits (*Parus major*) on the Dutch island of Vlieland, and ii) a unique eight-year (1996-2003) experiment that combined strong artificial selection on clutch size with cross-fostering and clutch size manipulations. Integrating life-history, fitness and pedigree data from before, during and after the experiment will provide you with an exceptional opportunity to study life-history evolution in action, and to quantify the importance of natural selection, gene flow and drift. Thereby you will provide an insight into the evolutionary dynamics of wild populations in general, and their capacity to respond to natural and human-induced selective pressures. To this end, you will use state-of-the-art statistical/quantitative genetic approaches to infer the role of genes and the environment in shaping variation in clutch size and fitness, and the relationship between them. These will be complemented by individual-based simulations and molecular marker data to quantify the role of stochastic processes, including drift. This project capitalises on a uniquely rich and powerful dataset that allows for answering a wide range of questions, and you are encouraged to further develop the project according to your interests.

\* More information \*

Starting date is September 2020. Students who are resident in EU countries are eligible for the full award on the same basis as UK residents. Applicants resident outside of the EU are not eligible.

For more information and to apply, visit <http://www.exeter.ac.uk/studying/funding/award/?id=3658> or <https://www.findaphd.com/phds/project/-disentangling-the-drivers-of-life-history-evolution-in-the-wild-artificial-selection-meets-natural-selection-in-a-unique-avian-island-population-phd-in-biosciences-nerc-gw4-dtp/?p112251> – Erik Postma Senior Lecturer in Evolutionary Biology University of Exeter

[www.biosciences.exeter.ac.uk](http://www.biosciences.exeter.ac.uk) [www.lifelovedeath.net](http://www.lifelovedeath.net)  
Centre for Ecology and Conservation, College for Life and Environmental Sciences Penryn Campus, Treliever Road, Penryn, Cornwall, TR10 9FE

“Postma, Erik” <E.Postma@exeter.ac.uk>

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## UExeter Cornwall Resistance Evolution Wildlife

Resistance Evolution in Response to Emerging Wildlife Disease Competitively funded PhD position, based at the Centre for Ecology and Conservation at the Cornwall Campus of the University of Exeter, UK. Supervised by Dr Barbara Tschirren (University of Exeter, UK), and co-supervised by Dr Sarah Perkins (Cardiff University, UK), Dr Patricia Brekke (Zoological Society of London, UK), and Dr Lars Raberg (Lund University, Sweden) \* Project background \* Climate change drives the emergence of human and wildlife diseases. In Europe, the disease vector *Ixodes ricinus* (Sheep tick) is currently undergoing a range expansion to higher latitudes and elevations in response to climate warming. As a consequence, host populations that were previously disease-free have become exposed to ticks and tick-transmitted pathogens. This natural experiment offers the unique opportunity to track resistance evolution in action in natural host populations. The most common tick-transmitted pathogen in Europe is *Borrelia afzelii*, which infects humans and causes Lyme disease. However, the pathogen's natural hosts are small mammals such as the bank vole *Myodes glareolus*. Bank vole populations can be easily tracked in space and time, providing an excellent model system in which to test how disease and resistance evolve under climate change, and its ramifications for human and wildlife health. The aim of this project is to understand how resistance evolves in bank vole populations in response to *Borrelia* emergence, and why and how variation in *Borrelia* resistance is maintained within and across populations. You will address these questions by combining field sampling of bank vole populations across gradients of *Borrelia* infection risk in Sweden and the United Kingdom with state-of-the-art molecular laboratory techniques. Population genomics approaches will be used to track resistance evolution in action in newly exposed host populations. Furthermore, in-vitro immunological assays and patterns of gene expression in resistant and susceptible voles will be used to understand the mechanisms underlying *Borrelia* resistance, and the maintenance of its variation, in the wild. This integrative and multidisciplinary approach allows you to address a wide range of questions and you are encouraged to further develop the project according to your interests. The project includes secondments to Lund University, Sweden and the Zoological Soci-



ety of London. \* More information \* Starting date is September 2020. UK and EU residents are eligible to apply. Students who are resident in EU countries are eligible for the full award on the same basis as UK residents. For more information and to apply, visit <http://www.exeter.ac.uk/studying/funding/award/?id=3655> –

Barbara Tschirren Senior Lecturer in Evolutionary Ecology University of Exeter Centre for Ecology and Conservation Penryn Campus, Stella Turk building, Penryn, Cornwall, TR10 9FE, United Kingdom

Email: [b.tschirren@exeter.ac.uk](mailto:b.tschirren@exeter.ac.uk) Phone: +44 (0)1326 214388 [www.exeter.ac.uk](http://www.exeter.ac.uk) “Tschirren, Barbara” <[B.Tschirren@exeter.ac.uk](mailto:B.Tschirren@exeter.ac.uk)>

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## UFlorida AntGeneEvolution

Interested in Genetic and Epigenetic Basis of Social Evolution? Apply for Graduate School at the University of Florida (UF)

The Yan Lab in the UF Biology is seeking graduate researchers to study how evolutionary expansion of receptor genes and diversity of sensory neurons in ants regulate their social communication and interaction with ecological environment, as well as how behavioral plasticity and reproductive longevity were evolved in eusocial insects.

Information on Dr. Yan’s research and articles can be found: <https://biology.ufl.edu/hua-yan/> [www.ncbi.nlm.nih.gov/pubmed/28802043](http://www.ncbi.nlm.nih.gov/pubmed/28802043)(Odorant Receptor) [www.ncbi.nlm.nih.gov/pubmed/25200663](http://www.ncbi.nlm.nih.gov/pubmed/25200663)(Behavioral Epigenetics)

Interested students are strongly recommended to apply for the graduate school at the University of Florida for Fall 2020. The deadline for applications to UF Biology is December 1. If you are interested, please contact me via email: [hua.yan@ufl.edu](mailto:hua.yan@ufl.edu) More information can be found at the website: <https://biology.ufl.edu/graduate/application/> The University of Florida is an Equal Opportunity Institution. Individuals from under-represented groups in STEM are particularly encouraged to apply.

Hua Yan, Ph.D. Department of Biology, University of Florida 882 Newell Dr., 511 Carr Hall PO Box 118525 Gainesville, FL 32611 Phone:352-273-4983

“Yan,Hua” <[hua.yan@ufl.edu](mailto:hua.yan@ufl.edu)>

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## UFZLeipzig Germany PlantEvolution

The Helmholtz Centre for Environmental Research (UFZ) is offering a PhD position (m/f/x) for Plant Evolutionary Ecology and Biodiversity Research working time: 65% (25,35 hours per week); limited to 4 years; on condition of final approval by the German Science Foundation

<https://recruitingapp-5128.de.umantis.com/Vacancies/-1756/Description/2> The position will be based in the Department Physiological Diversity of the Helmholtz Centre for Environmental Research, which is part of iDiv, the German Centre for Integrative Biodiversity Research Halle-Jena-Leipzig in Leipzig, Germany. The project will be carried out in close collaboration with the groups of Dr. Walter Durka from the Department of Community Ecology at the Helmholtz Centre for Environmental Research and Prof. Dr. Markus Fischer from University Bern (Switzerland). We offer an interesting position in an international, interdisciplinary research group at a lively scientific environment in Leipzig as well as international working experiences with project partners across Europe and the USA. The UFZ is an equal opportunity employer. Female scientists are explicitly encouraged to apply for increase their share in science and research. Physically handicapped persons will be favored if they are equally qualified.

Your tasks: Research within a project funded by the German Science Foundation (DFG) on “Plant trait variation and evolution in the biodiversity-ecosystem functioning context” in the framework of the Jena Experiment. The Jena Experiment is worldwide among the largest and longest running biodiversity experiments. The project addresses the role of evolutionary processes for plant species responses to plant community diversity, plant history and soil history. The task of the PhD student is to conduct common garden experiments and phytometer experiments in the field and laboratory analyses to quantify evolutionary changes in response to plant diversity at the genetic, epigenetic and phenotypic level. The PhD student will participate in the Graduate School HIGRADE.

Your profile: Applicants must hold a Master degree in biology/ecology or a related field. The ideal candidate should have a sound background in plant evolutionary and molecular ecology. He/she should be highly

motivated for research in experimental plant ecology, molecular ecology, in bioinformatics and statistical data analyses. Experience in field sampling and experimental design, molecular methods, bioinformatics and statistics (preferably R) and handling of large datasets will be a plus. Strong organizational skills as well as a driving license are required. Working place is Leipzig. Field work and common garden experiments will be carried in the Jena Experiment near to the city of Jena (Thuringia) and the Experimental Field Station of the Helmholtz Centre for Environmental Research in Bad Lauchstädt. Laboratory work will be done in Leipzig and Halle.

Applicants should send their CV, copies of certificates, a statement on motivation and names (with email address) of two references by email in one single pdf file. Application deadline is 08th November 2019, and interviews will be also in November 2019 in Leipzig.

We offer:

Top level interdisciplinary research at a research centre which enjoys an excellent reputation within Germany as well as internationally Excellent technical facilities Work in inter-disciplinary and multinational teams Excellent links to national and international research networks Support and optimal training courses by our graduate school (HIGRADE) Remuneration in accordance with the TVöD public-sector pay grade 13 (65%) The UFZ has a strong commitment to diversity and actively supports equal opportunities for all employees regardless of their origin, religion, ideology, disability, age or sexual identity. We look forward to applications from people who are open-minded and enjoy working in diverse teams.

Your contact for any questions you may have about the job: PD Dr. Christiane Roscher, christiane.roscher@ufz.de Dr. Walter Durka, walter.durka@ufz.de

Please submit your application via our online portal with your cover letter, CV (please omit your photo, age, or marital status) and relevant attachments.

Closing date for applications: 10.11.2019 Place of work: Leipzig <https://recruitingapp-5128.de.umantis.com/-Vacancies/1756/Description/2> Walter Durka <walter.durka@ufz.de>

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## UGeorgia SocialInsectEvolution

PhD Position: NSF-supported graduate studies in evolutionary epigenetics and genomics of social insects at the University of Georgia.

The Hunt Lab at UGA is broadly interested in how evolution produces variation in insect form and function. We use social insects, such as ants, bees, and wasps as models for studying how evolutionary and gene regulatory mechanisms shape variation in social behavior. We have taken a particular interest in investigating genetic and epigenetic factors that underlie differences in complex traits.

In collaboration with Ken Ross at UGA, we study how a supergene and phenotypic plasticity influence variation in colony queen number and social behaviors in the fire ant *Solenopsis invicta*. In collaboration with Sarah Kocher at Princeton University, we study how gene regulatory evolution shapes social behaviors. We are always interested in identifying new systems and approaches for study.

The Hunt Lab is a young and dynamic research group dedicated to fostering the success of its lab members. We are a part of the Entomology Department, one of many departments in the life sciences at the University of Georgia. Diverse areas of expertise and coursework availability at UGA, along with a first-rate genomics core facility, help students reach their full potential. Students will take coursework and receive training in entomology, genetics, and bioinformatics.

Requirements: An interest in broad evolutionary questions and a desire to develop bioinformatic expertise. Applicants must meet requirements of admission to the Graduate School at the University of Georgia (see <http://www.caes.uga.edu/departments/-entomology/graduate.html>). The start date is flexible.

More information about the Hunt Lab can be found online at <http://huntlab.uga.edu>. Prospective applicants should email Brendan Hunt at [huntbg@uga.edu](mailto:huntbg@uga.edu) with a statement of interest.

BRENDAN HUNT <[huntbg@uga.edu](mailto:huntbg@uga.edu)>

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## Uiceland Genomics Adaptive Differentiation

PhD position in biology, Institute of Life and Environmental Sciences, University of Iceland A full PhD position in biology is open for applications, at the Institute of Life and Environmental Sciences for the project: The genomic basis of adaptive differentiation between closely related morphs of Arctic charr

To what extent do loci with moderate to large effects on phenotype contribute to adaptive differentiation between ecotypes of Arctic charr specialising on foraging for different prey types in different environments within Thingvallavatn? Are loci related to adaptive differentiation fixed, or do they cause variation both between and within morphs? Are there evidence of positive selection in the genome? Do genomic regions with signatures of selection also associate with phenotype? These and related questions will be addressed by a team of researchers, and a capable Ph.D. student responding to this advertisement. The Arctic charr (*Salvelinus alpinus*) of Lake Thingvallavatn are ideally suited for studies of the ecology and genetics of adaptive diversification: i) it is an extraordinarily well-characterised system, ii) it has young evolutionary history, iii) it has diverged into four morphs with distinct variation in life history characteristics, behaviour and trophic morphology, suggesting rapid adaptive diversification. This system thus represents an extremely compelling case of rapid adaptive differentiation. However, to date, the system has been under-used to answer fundamental questions about the genetic basis of this diversification, due in large part to a lag in the development of genomic resources, and the long generation time. These issues have recently been overcome, and it is now possible to get at some long-outstanding questions. The overall aim of this project is to answer fundamental questions about the genetic basis of this extraordinary case of rapid adaptive differentiation, by determining the number, genomic distribution, range of effect sizes on traits and evidence of selection of loci contributing to adaptive diversification. We will answer these questions by deploying a series of studies, using both classical genetic study designs (QTL mapping) of carefully constructed laboratory crosses, and modern population genomic analyses of field-collected specimens.

We are seeking a student with dedication, drive and

good theoretical background in evolution, ecology, population genomics and quantitative genetics. The position will be at the University of Iceland. The project is in collaboration with Michael B. Morrissey at the university of St Andrews, Scotland and Moira M Ferguson at the university of Guelph (Canada). The work will be divided between the universities of Iceland, St. Andrews and Guelph. The PhD study should be completed within four years of full time study. The PhD-student may be involved in teaching, for two semesters maximum. Applications should be submitted here: <https://english.hi.is/vacancies> accompanied by i) a letter of intent (maximum two pages) explaining interest in working on this project, the reason to pursue a PhD, hopes to gain and learn during the PhD studies and what makes them suitable for this project ii) CV, iii) transcripts of university diplomas, courses taken at bachelor and masters level, iv) degree project thesis and vi) names and contact information of two persons that could provide letters of references. Applications should be sent before October 31st 2019, to [kalina@hi.is](mailto:kalina@hi.is)

The student will join the Arctic charr group at the Institute of Life and Environmental Sciences. The Arctic charr group consists of several PhD students and senior personnel, and has collaborators in Iceland, Scotland and Canada. The combined expertise covers population ecology and genetics, molecular and developmental biology and bioinformatics. At the institute we have well equipped molecular biology labs, and instruments and computer pipelines for high throughput sequencing, are accessible there or at collaborating centers.

The University of Iceland strives to work against workplace discrimination and to offer equal opportunities to everyone.

For further information contact: Kalina H. Kapralova ([kalina@hi.is](mailto:kalina@hi.is)). Further information on Arctic charr group at the University of Iceland: <http://luvs.hi.is/en/arctic-charr-development-and-genomics>

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## UiT Norway Evolutionary Marine Genomics

We have a phd position available at our group to work in Evolutionary Marine Genomics of cleaner fish at UiT The Arctic University of Norway, Tromsø (Norway). The application deadline is on 17.10.2019.

Detailed information of the position is available on

JobbNorge <https://www.jobbnorge.no/en/available-jobs/job/176092/phd-position-in-evolutionary-marine-genomics> Enrique Blanco Gonzalez, Ph.D. Associate Professor Norwegian College of Fishery Science UiT The Arctic University of Norway N-9037 Tromsø, Norway

Office: (+47) 776 46064 Mobile: (+47) 454 96531 E-mail: [enrique.blanco@uit.no](mailto:enrique.blanco@uit.no)

Enrique Blanco Gonzalez <[enrique.blanco@uit.no](mailto:enrique.blanco@uit.no)>

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## UKentucky EvolutionInsectPests

Graduate Assistantships in Urban Entomology

Location: Department of Entomology University of Kentucky, Lexington, KY

Contact: Zachary DeVries Email: [zdevries@uky.edu](mailto:zdevries@uky.edu) Office: 919-515-1820 Web: <https://devrieslab.weebly.com/> Position Description: The DeVries Lab (<https://devrieslab.weebly.com/>) at the University of Kentucky is recruiting both M.S. and Ph.D. students with a focus in urban entomology. Defined broadly, urban entomology encompasses a multitude of topics relating to pests found indoors and around structures. Potential research topics could include (but are not limited to) urban pest management (IPM, baiting, novel strategies), behavior (cockroach foraging, bed bug host attraction), evolution (incipient speciation, indoor adaptations), physiology (metabolism, respiration, insecticide resistance), and health risks associated with urban pests (cockroach allergens, bed bug histamines). Successful applicants will be highly-motivated individuals who can work independently while also benefiting from working as part of a collaborative team. Successful applicants will have good organizational skills (communication, planning, etc.), research experience (project design, data collection, data analysis, reporting results), and a passion for improving urban pest management and mitigating associated health risks.

UK Department of Entomology: The UK Entomology Department (<https://entomology.ca.uky.edu/>) is comprised of over 20 faculty with expertise in numerous disciplines. The faculty, staff, and students are extremely energetic and passionate about their work, which is reflected in our department being consistently ranked as one of the most productive programs at the University of Kentucky. Students from our department have gone

on to have successful careers in a variety of sectors, including academia, industry, and the government.

Life in Lexington: Lexington is a vibrant city that maintains a collegiate atmosphere. Ranked #29 in the US News and World Report Best Places to Live (<https://realestate.usnews.com/places/rankings/-best-places-to-live>), Lexington boasts a wide variety of restaurants and shopping, and is close to some wonderful hiking trails (1 hour to the Red River Gorge). Also, due to its central location, travel (driving and flying) to and from Lexington is both easy and convenient.

Start Date and Compensation: The successful applicant will start any time between January and August 2020, as mutually agreed upon. The assistantship includes a competitive stipend, tuition waiver, and health coverage.

Application Procedure: Interested applicants should submit the following to Zachary DeVries via email ([zdevries@uky.edu](mailto:zdevries@uky.edu)): 1. Cover letter describing your research experience, interests, and career goals 2. CV (including GPA and GRE scores, if taken) 3. Unofficial transcript(s) 4. Name and contact information for three references

Successful applicants will also be required to apply to the University of Kentucky Graduate School, but this can be delayed until a later date.

Zachary DeVries <[zdevries@gmail.com](mailto:zdevries@gmail.com)>

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## ULausanne 2 TheoreticalEvolution

2 Fully-funded PhD studentships in Theoretical Evolution and Ecology at the University of Lausanne

The Mullon lab in the Department of Ecology and Evolution at the University of Lausanne, Switzerland, is seeking two PhD students to develop new theory in evolutionary genetics and evolutionary ecology using mathematics and/or computational methods. Projects are flexible and will relate to understanding the genetic and ecological bases of variation in quantitative traits, with specific interest in social traits, such as aggression, cooperation, resource utilization or mating behavior. Support for the positions comes from a recent SNSF Eccellenza award (PCEFP3.181243).

Job information Expected start date: 01.03.2020 or to be agreed Contract length: The initial contract is for one year and is extendable to a total of 4 years.



Activity rate: 80-100% Workplace: Department of Ecology and Evolution, University of Lausanne, Dorigny, Switzerland

Your qualifications Candidates need to have a Master's degree in a relevant area before the start date of their position. Successful candidates will have experience in mathematical or computational modeling, and a keen interest in ecology and evolution. A high level of written and spoken English proficiency is required.

What the position offers you You will develop your research project while working in a world competitive, interdisciplinary and highly collaborative environment. The PhD program in the University of Lausanne provides opportunities for professional training and acquisition of highly transferable skills. The positions are fully funded. Salary and benefits are internationally highly competitive. Additional funding for consumables, computing, and to attend international conferences is available.

Your application Please, send your full application in PDF by email to Charles Mullan (charles.mullan@unil.ch) by the 25th of October 2019. Your application should include:

\* Cover letter, including research interests \* Curriculum vitae, including the names and contact details of 2-3 references \* Master's thesis summary (max. one page)

Lab visits and interviews will take place in December 2019 in Lausanne.

For more information on the department of Ecology and Evolution, please consult <https://www.unil.ch/-dee/en/home.html> For more information on the University of Lausanne, please consult <https://www.unil.ch/-central/en/home.html> For additional information regarding the positions, please contact Charles Mullan (charles.mullan@unil.ch).

Charles Mullan

Assistant Professor Department of Ecology and Evolution University of Lausanne charles.mullan@unil.ch

Charles Mullan <charles.mullan@unil.ch>

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## Ullinois Evolution Ecology Behavior

The Department of Evolution, Ecology, and Behavior (EEB) at the University of Illinois is accepting applications for graduate students for admission in Fall 2020. We accept applications for both the Master's (M.S.)

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

Students for the Ph.D. are typically funded for 5-years with a combination of fellowships, research assistantships, and teaching assistantships. The deadline for consideration is December 15, 2019. For further information, see <https://sib.illinois.edu/eeb/-graduate.admissions>. The following faculty are actively recruiting students:

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

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

Julian Catchen - Evolution of the genome; computational biology and population genomics; identifying large structural variation in populations of threespine stickleback; investigating the evolution of the notothenioid (Antarctic fishes) genome by examining the adaptive radiation of five notothenioid species. RADseq, assembly, and genetic mapping analytical method development.

Chris Cheng - Molecular evolution of antifreeze proteins and other cold adaptive or specialized traits in polar fishes; origins and molecular mechanisms of new gene genesis; molecular cytogenomics; Southern Ocean marine diversity including eDNA methods. Field research in Antarctica and the Arctic.

Eva Fischer - Mechanisms of behavior with an emphasis on parental care in amphibians; Evolution of behavioral mechanisms and the extent to which these constrain and/or facilitate evolution of behavior; Genomics/Neurogenomics

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



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

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

Becky Fuller <fuller@life.illinois.edu>

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## UmeaU EvolutionEndosymbiosis

PhD modeling endosymbiosis at Umeå University

“A Ph.D. studentship in mathematics as related to modeling the evolution of endosymbiosis and the evolutionary origins of eukaryotes is available in the research group of Eric Libby at Umeå University in Sweden (<http://ericlibby.github.io/>). Candidates should have a quantitative background with an interest in building mathematical models of biological systems. The proposed work will feature interdisciplinary projects done in collaboration with Chris Kempes at the Santa Fe Institute.

Background for the project: A pivotal event for the evolution of life on earth was the endosymbiotic event in which two previously independent cells merged to give rise to what we now call mitochondria and eukaryotes. This event is thought to have occurred only once and account for the evolution of all large, complex life. Despite its importance, we do not understand the general principles that govern the probability or fitness consequences of an endosymbiotic event. The aim of this Swedish Research Council-funded PhD position is to address this significant knowledge gap by developing a theoretical framework based on mathematical models that can identify these principles. Useful modeling techniques include differential equations, network approaches, agent-based simulations, evolutionary analyses, probabilistic models, and allometric scaling analyses.

Qualifications: Candidates need to be skilled in both oral and written communication in English, and should be able to work independently as well as in collaboration with others. Certain coursework is needed in mathematics (contact Eric or see job posting for detailed information). Candidates need to have proficiency, but not necessarily documented, in working with computers and programming, e.g. in Matlab, Python, Julia,

C&#43;&#43;, or some other language. A good background in mathematics, differential equations, and/or programming is qualifying. Interest and knowledge of evolutionary biology, microbiology, and/or molecular biology is desirable but not necessary.

Apply: To apply see the official ad: <https://-umu.varbi.com/en/what:job/jobID:291353/> The deadline is Nov 23, 2019 with an anticipated start date early in 2020.

Questions: If there are any questions please contact Eric Libby at: Eric Libby Umeå University [elibbyscience@gmail.com](mailto:elibbyscience@gmail.com)”

Eric Libby <[elibbyscience@gmail.com](mailto:elibbyscience@gmail.com)>

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## UNottingham EvolutionOfMimicry

The evolution of mimicry in a changing world: how shifting bumblebee communities affect selection on a colour-polymorphic hoverfly

Applicants are invited for a fully-funded PhD studentship at the University of Nottingham (UK), in collaboration with the Centre for Ecology and Hydrology, starting Sep/Oct 2020.

Link: <http://www.envision-dtp.org/2019/the-evolution-of-mimicry-in-a-changing-world-how-shifting-bumblebee-communities-affect-selection-on-a-colour-polymorphic-hoverfly/> Complex species interactions make the impacts of global environmental change difficult to foresee. Understanding the ecological and evolutionary relationships between species, and the way that the fitness of a species is affected by changes in community composition, is essential in order to predict shifts in species distributions and patterns of biodiversity. In this project, we will investigate a fascinating interaction between an important group of pollinators and their charismatic parasite, with the ultimate aim of predicting the consequences of environmental change for the species concerned. Along the way, we will gain some valuable insights into the genetic origins of Batesian mimicry. The project involves an unusual combination of practical ecology and behaviour, species distribution modelling, and cutting-edge genomics.

Larvae of the hoverfly *Volucella bombylans* infest the nests of bumblebees. They eat bumblebee brood cells, pollen stores and detritus, but the impact on host fitness, and hence the degree of parasitism, is not known.

Adult flies display a striking colour polymorphism, with individuals resembling different bumblebee species. We think they are Batesian mimics, fooling predators into thinking that palatable and harmless flies are heavily-defended and unpalatable. In the era of species distribution modelling and genome sequencing, this system provides unique opportunities to address two fascinating research questions. Firstly, how will global environmental change affect the relationship between a putative parasite and its hosts, when those hosts also act as a model for mimicry? And secondly, which genes are responsible for Batesian mimicry, and how is selection on those genes influenced by variation in community composition?

The successful applicant will conduct field sampling, laboratory experiments, genomic analysis and species distribution modelling, with the focus of the work being shaped by the student's interests. They will work with a cross-disciplinary supervisory team, and receive training in entomology, bioinformatics and modelling.

Essential: The student should hold at least a good undergraduate degree or equivalent in a biological science; they should have experience of ecology, evolutionary biology and genetics; they should have practical research project experience and laboratory skills.

Highly desirable: A Masters-level qualification in a relevant subject area; full UK-compatible driving licence; experience of statistical/mathematical modelling; experience of practical entomology; experience of PCR and other basic molecular laboratory skills.

If you are interested, please email Dr Tom Reader, School of Life Sciences, University of Nottingham, Nottingham, NG7 2RD; [tom.reader@nottingham.ac.uk](mailto:tom.reader@nottingham.ac.uk).

Dr Tom Reader Associate Professor School of Life Sciences University Park University of Nottingham NG7 2RD Tel. 0115 9513213 Web: [ecology.nottingham.ac.uk/tomreader](http://ecology.nottingham.ac.uk/tomreader)

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Tom Reader <[Tom.Reader@nottingham.ac.uk](mailto:Tom.Reader@nottingham.ac.uk)>

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## UOregon EvolutionMicrobialMetabolism

### CALL FOR GRAD STUDENTS STUDYING THE ECOLOGY AND EVOLUTION OF MICROBIAL METABOLISM

The Louca Lab at the University of Oregon is seeking PhD students to work on microbial (bacterial and archaeal) ecology and evolution, using any combination of mathematical modeling, bioinformatics, experiments and field surveys.

Potential topics include: - The statistical properties of global prokaryotic genomic diversity - Gene-level and genome-level processes of prokaryotic macroevolution - The role of genomic structure in the dynamics and evolution of microbial metabolic networks - Experimental and mathematical characterization of microbial system kinetics - Development of new phylogenetic and phylogenomic tools for analyzing global prokaryotic diversification processes - Estimating global prokaryotic phylogenetic/phenotypic diversity through deep time - Coevolution of microbial diversity with large-scale geological transitions

Prospective students from a wide range of related disciplines, such as biology, physics, environmental studies or computer science, interested in microbial ecology and evolution, are encouraged to consider joining the Louca lab. Experience in programming (any language), bioinformatics (especially genomics and metagenomics), mathematical modeling and/or molecular biology are of benefit but not absolute requirements. The most important skills are creativity, attention to clear deductive reasoning, as well as a strong motivation to learn and to solve problems.

Additional information is available at: [www.loucalab.com](http://www.loucalab.com) Interested students are encouraged to directly contact the lab's principal investigator, Stilianos Louca, to discuss potential research projects and application logistics. The 2019 application deadline for the University of Oregon Department of Biology graduate program is December 1st.

Stilianos Louca, Asst. Professor Department of Biology Institute of Ecology and Evolution University of Oregon, Eugene

[www.LoucaLab.com](http://www.LoucaLab.com)  
<[slouca@uoregon.edu](mailto:slouca@uoregon.edu)>

Stilianos Louca

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## URochester EvolutionEcologyGeneticsGenomics

UR Department of Biology Graduate Student Recruitment for Fall 2020

The Department of Biology at the University of Rochester is seeking applicants for graduate admission to begin study in Fall 2020. Research strengths of our Ecology, Evolution, Genetics, and Genomics (E2G2) group include evolutionary genetics, population genomics, development, evolutionary ecology, behavioral ecology, and conservation.

Faculty members taking students for Fall 2020:

- Nancy Chen (population genetics, contemporary evolution, conservation genomics) <https://popgenchenlab.github.io/> - Justin Fay (evolutionary genetics, domestication, gene regulation, computational biology) <http://labsites.rochester.edu/faylab/> - Amanda Larracuente (evolutionary genetics, computational biology, selfish genetic elements) <https://blogs.rochester.edu/larracuente> - Daven Presgraves (evolutionary genetics, speciation, selfish genetic elements, recombination) <http://blogs.rochester.edu/PresgravesLab/> - Al Uy (evolutionary ecology, evolutionary genetics, behavioral ecology, speciation) <http://tropbiolab.org/JACU/> Information about the graduate program and application materials can be found at <http://www.sas.rochester.edu/bio/graduate/index.html>. The deadline is December 1. Interested candidates should contact potential faculty advisors for more information.

The University of Rochester is a top-tier research university located in Rochester, New York. Rochester is a mid-sized city in beautiful Upstate New York with a thriving arts/music scene, great restaurants, and a low cost of living.

Our department and its graduate program are deeply committed to providing a safe, inclusive and supportive learning environment for graduate students. Our goal is to provide a first-class research and training environment in which faculty, students and staff are united by mutual respect and the love of science. To achieve this goal, a number of institutional resources have been created to address student concerns. The CARE network (<https://www.rochester.edu/care/>) is a nationally recognized program that provides confiden-

tial support for addressing emotional, physical or social concerns. The program has a dedicated staff member responsible for serving AS&E graduate students. The Ombudsperson Program provides a confidential and independent mechanism for addressing conflicts and concerns of PhD candidates and post-doctoral fellows. A Commission on Women and Gender Equity in Academia (<https://www.rochester.edu/commission-women-gender-academia/>) has been recently developed by faculty and students to conduct a broad review of university policies, procedures, and culture that affect women and LGBTQI individuals in academic settings. More information regarding these and other university resources are available through our Department Administrator, Brenna Rybak ([brenna.rybak@rochester.edu](mailto:brenna.rybak@rochester.edu)).

“Chen, Nancy” <[nancy.chen@rochester.edu](mailto:nancy.chen@rochester.edu)>

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## USaskatchewan EvolutionLymeDisease

MSc in Strain diversity and infection phenotype of the Lyme disease pathogen Department of Veterinary Microbiology, WCVM, University of Saskatchewan

Position: One MSc position is available in an NSERC-funded research lab at the University of Saskatchewan to investigate how strain diversity of *Borrelia burgdorferi*, the tick-borne pathogen that causes Lyme disease (LD), influences the infection phenotype in the rodent host. We will use experimental infections with a lab LD system (mice, ticks) and different strains of *B. burgdorferi* to study the relationship among pathogen life history traits such as pathology, pathogen tissue burden, and transmission. The MSc student will work closely with a PhD student who is working on a complementary project.

Location: The University of Saskatchewan is one of the 15 top research universities in Canada. The WCVM is the premiere veterinary school in Western Canada and has state-of-the-art facilities. The Faculty in the Department of Veterinary Microbiology are biologists and veterinarians who study pathogens and parasites across a wide range of biological disciplines (molecular biology, physiology, and ecology). The Voordouw Tick & Lyme Lab has research funding from NSERC and the SHRF.

Job requirements: The position requires an independent, highly motivated, enthusiastic, and scientifically curi-

ous individual with an interest in the following fields: infectious diseases, microbiology, immunology, ecology, or evolutionary biology. The candidate will learn a diversity of skills including molecular techniques (qPCR, ELISA, Western Blots), working with rodents, statistical data analysis, and writing scientific papers. The applicant must have a BSc in biology (or a relevant discipline). The candidate is expected to apply for internal scholarships.

Start date: The position is available as early as May 2020. The salary is set by the Department of Veterinary Microbiology and the University of Saskatchewan College of Graduate and Postdoctoral Studies.

Application requirements: Please submit: (1) a 1-2-page cover letter indicating your research interests and why you are interested in the position, (2) your CV (including a list of publications), (3) University transcripts, and (4) two letters of reference. Submit your complete application package via email to: [maarten.voordouw@usask.ca](mailto:maarten.voordouw@usask.ca). The application deadline is 31 December 2019 (or until the position is filled).

Professor Maarten J. Voordouw Department of Veterinary Microbiology, WCVM, University of Saskatchewan Saskatoon, Saskatchewan, Canada Email = [maarten.voordouw@usask.ca](mailto:maarten.voordouw@usask.ca) Work phone = 306 966-7245 Website: <https://researchers.usask.ca/~maarten-voordouw/> “[maarten.voordouw@usask.ca](mailto:maarten.voordouw@usask.ca)” <[maarten.voordouw@usask.ca](mailto:maarten.voordouw@usask.ca)>

## USheffield Evolutionary Genomics

We are seeking a highly motivated and enthusiastic PhD student to study the evolution and genetics of sexual dimorphism across birds.

\*The evolution and genetics of sexual dimorphism\*

Deadline for applying: 8th January 2020

Lead supervisor: Dr Alison Wright, University of Sheffield Co-supervisors: Prof Jon Slate (University of Sheffield), Prof Steve Paterson (University of Liverpool)

\*Details\* Males and females of the same species are often subject to very different selection pressures and can show major differences in morphology, behaviour and life history. However, as there are very few sex-limited genes, these contradictory selection pressures act on a genome that is identical between the sexes. This can generate sexual conflict, an evolutionary tug-

of-war between males and females. On the one hand, this tug-of-war is thought to act as an evolutionary brake. However, there is growing evidence that sexual conflict might actually accelerate adaptation by increasing genetic diversity in populations. Disentangling the causes and consequences of sexual conflict is a major challenge in evolutionary biology, with important implications for our understanding of adaptation and sexual dimorphism.

This project will test the causes and consequences of sexual conflict across the genome using next-generation sequencing data from multiple bird species. The specific approach taken can be tailored to the particular interests of the student and could include studies of gene expression, alternative splicing, adaptation, sexual selection and genome evolution. Applicants should have strong analytical skills and an enthusiasm for evolutionary genomics. Bioinformatic skill are preferred but certainly not essential.

\*Training\* This PhD project is an excellent opportunity to learn state-of-the-art genomic skills to study genome evolution and test clear theoretical predictions. The successful candidate will be trained in cutting-edge bioinformatics and genomic techniques. The applicant will be joining a positive and collaborative research group and benefit from the diverse range of expertise offered by the co-supervisors and researchers within the Animal and Plant Sciences Department at the University of Sheffield.

\*Funding Notes\* Interested applicants are encouraged to contact Alison Wright before applying ([a.e.wright@sheffield.ac.uk](mailto:a.e.wright@sheffield.ac.uk)) for more details on the project, funding and facilities. For details on current research in the Wright lab, see [www.alisonwright.co.uk](http://www.alisonwright.co.uk)

For details on how to apply, including eligibility, see: <https://acce.shef.ac.uk/phd-opportunities/sheffield/> & <https://www.findaphd.com/phds/project/the-evolution-and-genetics-of-sexual-dimorphism/?p113309> – Dr Alison Wright

NERC Independent Research Fellow Dept. of Animal and Plant Sciences, University of Sheffield Sheffield, S10 2TN

Twitter: @alielw Lab webpage < <http://www.alisonwright.co.uk> > Departmental webpage < <http://www.sheffield.ac.uk/aps/staff-and-students/-acadstaff/wright> >

Alison E Wright <[a.e.wright@sheffield.ac.uk](mailto:a.e.wright@sheffield.ac.uk)>



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## USouthampton NHMLondon AdaptationGenomics

Dear Evoldir,

We are currently looking for applicants for two PhDs based at the University of Southampton. One in collaboration with the NHM, London about adaptation genomics, and the other concerns modelling adaptive responses to climate change. Please pass on to potential students if you know of some. Application deadline is 3rd January with interviews in late February. Please take note of the requirements for applicants.

1. Genomics of Adaptation to Climate Change in Rice

<http://noc.ac.uk/gsnocs/project/genomics-adaptation-climate-change-rice> 2. Modelling the evolution of adaptive responses to climate change across spatial landscapes

<http://noc.ac.uk/gsnocs/project/modelling-evolution-adaptive-responses-climate-change-across-spatial-landscapes> Other projects are available too: <http://noc.ac.uk/gsnocs/projects/inspire-projects-by-research-theme> Best wishes, Mark

Dr Mark A. Chapman M.Chapman@soton.ac.uk +44 (0)2380 594396

Biological Sciences University of Southampton Life Sciences Building 85 Highfield Campus Southampton SO17 1BJ

Mark Chapman <markchapman4774@gmail.com>

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## UTennessee Knoxville EvolBiology

The Department of Ecology and Evolutionary Biology (EEB) at the University of Tennessee, Knoxville, is seeking applications from prospective graduate students who wish to pursue a research-based Masters or PhD degree. Our ecology program is among the top 10% for research impact in North America (Keville et al., 2017). We pride ourselves on supporting the professional growth and career success of our students, as evidenced by their excellent track record of important scientific

discoveries, publications in top journals, participation in international scientific meetings, receiving prestigious national and international funding, and placement in their desired career pathways (whether that leads them to top research and/or teaching institutions, positions in public/governmental agencies, or private industry - see

<https://eeb.utk.edu/wp-content/uploads/2018/11/-image002.png>).

Our faculty work across a broad range of exciting questions in a collaborative, collegial department. We investigate interactions within and between levels of biological organization; our study systems span from genes to ecosystems (see

<https://eeb.utk.edu/people-2/faculty/> and a few brief examples at the end of this message). We integrate experimental, survey, theory, modeling and statistical approaches with a rich tradition of natural history in pursuit of these topics.

While we encourage students to pursue independent funding opportunities, our policy is to admit students only when we are confident we have funding support available for the full duration of their studies (provided adequate progress in the program). We provide funding to both Master's and PhD students through teaching assistantships, regardless of their citizenship. Our goal is to recruit a diverse pool of students on a range of metrics, including background, career stage, and research interests.

Our program relies on the strong mentorship bond between student and advisor(s). We therefore give very strong preference to candidates who have already communicated with their potential advisor(s) before submitting their application. Our deadline for applications is Dec 1st, 2019, so we suggest reaching out to potential advisors at least 2 weeks before submitting your application to allow for low-stress communication.

Read more about us at <https://eeb.utk.edu/> and find our application instructions and materials at

<https://eeb.utk.edu/graduate-studies/application-information/> . If you need help with the online application, please contact the Graduate Admissions Staff assigned to EEB. For other questions, please contact Prof. Nina Fefferman, Chair of the Graduate Admissions Committee.

Brief examples of some of the foci of strength in our program include (but are not limited to) the large numbers of faculty who work as quantitative bioscientists in a variety of fields, <http://www.nimbios.org/qb>, and conservation biology, <https://consci.utk.edu/>. There



are also many faculty members working on predictive ecological and evolutionary frameworks for the outcome of plant-soil-microbial interactions under global change.

Nina Fefferman <nina.h.fefferman@gmail.com>

Justin C. Havird Department of Integrative Biology  
The University of Texas at Austin

Justin Havird <jhavird@auburn.edu>

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## UTexas Austin EvolutionGenomics

The Havird Lab at the University of Texas at Austin is looking for enthusiastic and motivated PhD students beginning in the Fall 2020 semester. Students will have the opportunity to develop independent dissertation projects that complement research themes in the lab on molecular evolution, cytonuclear interactions, and environmental physiology. Ongoing projects in the lab examine coevolution between mitochondrial and nuclear genomes, the roles of cytoplasmic genomes at species boundaries, and ecophysiology/environmental adaptation (<https://sites.cns.utexas.edu/havird>). Multiple organismal systems are used in the lab, including plants and animals, as well as making use of existing publicly available genomic datasets. Students in the Havird Lab are expected to develop both wet lab and bioinformatic skill sets.

The lab is part of the growing Ecology, Evolution, and Behavior (EEB) group in the Integrative Biology Department at the University of Texas. Interested students should contact Justin Havird (jhavird@utexas.edu) and provide a brief description of your research interests along with a current CV. Applicants are encouraged to consider applying for outside funding opportunities (e.g., the NSF predoctoral fellowship). Applicants can apply through the EEB, Plant Biology, or Cell and Molecular Biology (via rotations) Graduate Programs at UT following the links below.

Applications received before December 1st, 2019 will be given full consideration.

Additional information:

Havird Lab: <https://sites.cns.utexas.edu/havird>  
Integrative Biology Dept. at UT: <https://integrativebio.utexas.edu/> EEB Graduate Program at UT: <https://cns.utexas.edu/eeb-graduate-program> CMB Graduate Program at UT: <https://icmb.utexas.edu/cmb> Plant Biology Graduate Program at UT: <https://cns.utexas.edu/plantbio-graduate-program> Reasons to move to Austin: <https://theculturetrip.com/north-america/usa/texas/articles/10-reasons-everyone-is-moving-to-austin/>

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## UTuebingen PlantEvolution

The Plant Evolutionary Ecology group and the Comparative Zoology group at the University of Tübingen in Germany invite applications for two PhD positions in Evolutionary Ecology and Ecological Genomics.

In the project HerbAdapt, the PhD student (m/f/d) will investigate phenotypic variation and local adaptation of understory plants in relation to forest management. Common-garden experiments and a large transplant experiment are core to this project. The student will be supervised by Niek Scheepens (Plant Evolutionary Ecology) and Pieter De Frenne (Ghent University, Belgium).

In the project ForGenDiv, the PhD student (m/f/d) will sequence material of 20 plant and arthropod species from the forest understory and link these data to forest management. The student will be responsible for sampling all material as well as for molecular lab work and statistical analyses. This project will be supervised by Henri Thomassen (Comparative Zoology) and Oliver Bossdorf (Plant Evolutionary Ecology).

The two projects will collaborate during sampling as well as through joint data analysis. Both projects are part of the Biodiversity Exploratories, one of the largest ecology projects in the world, which will allow the students to interact with many other ecological researchers.

The successful applicants will be based in Tübingen. The field work will take place across Germany in the Schwäbische Alb, Hainich-Dün and Schorfheide-Chorin regions. The University of Tübingen is one of the oldest universities in Germany, and Tübingen is a beautiful university town with a high quality of life. The Plant Evolutionary Ecology group and the Comparative Zoology group study the ecology, evolution and genomics of plants and animals in changing environments.

We are looking for students with strong interests in ecology and evolutionary biology. The successful candidates should have a MSc in biology (or equivalent), solid statistical skills (preferably in R), a good command of English, and a driving license (German or otherwise). Experience with plant ecological experiments is a plus for HerbAdapt, while training in sequence data analysis is a plus for ForGenDiv. Both positions are funded for

3 years (pending final confirmation by the DFG). Salary is at the scale 13 TV-L (65%). Starting date is 1 March 2020.

The University of Tübingen aims at increasing the share of women in research and teaching and therefore particularly encourages women to apply. Disabled candidates will be given preference over other equally qualified applicants.

If you wish to apply, please send your CV, along with a letter of motivation and the contact details of two references as a single PDF to [niek.scheepens@biologie.uni-tuebingen.de](mailto:niek.scheepens@biologie.uni-tuebingen.de) (HerbAdapt) or [henri.thomassen@uni-tuebingen.de](mailto:henri.thomassen@uni-tuebingen.de) (ForGenDiv). Deadline for applications is October 31, 2019. For questions, please use the same email addresses as above.

\* University of Tübingen: <https://uni-tuebingen.de/en/university/> \* Plant Evolutionary Ecology group: <https://uni-tuebingen.de/en/faculties/faculty-of-science/departments/-biology/institutes/evolutionecology/groups/plant-evolutionary-ecology/> \* Comparative Zoology group: <https://uni-tuebingen.de/fakultaeten/-mathematisch-naturwissenschaftliche-fakultaet/fachbereiche/biologie/institute/evolutionecology/lehrende-zoologie/> \* Biodiversity Exploratories: <https://www.biodiversity-exploratories.de/> Henri A. Thomassen, Ph.D. Institute of Evolution and Ecology University of Tübingen Auf der Morgenstelle 28 D-72076, Tübingen Germany Email: [henri.thomassen@uni-tuebingen.de](mailto:henri.thomassen@uni-tuebingen.de) Phone: +49 7071 29 76 947

[henri.thomassen@uni-tuebingen.de](mailto:henri.thomassen@uni-tuebingen.de)

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## UTuebingen PredatorPreyCoevolution

2 PhD student positions (50%, E 13 TV-L) in Evolution and Ecology

The Institute of Evolution and Ecology at the Department of Biology at the University of Tübingen seeks two highly motivated PhD students for projects in the visual ecology of marine predator-prey coevolutionary interactions.

The Animal Evolutionary Ecology group investigates the co-evolution between camouflage and visual detection in interacting prey and predator species with a focus

on small benthic fish. We use state-of-the-art spectroradiometry and behavioural experiments in the field and in saltwater labs in Tübingen. In situ experiments in the field are carried out for up to two months per year (Corsica, Red Sea, Sulawesi). PhD supervision is embedded in the graduate programme EVEREST.

We are looking for enthusiastic scientists with a MSc (or equivalent) in Biology (e.g. behavioural ecology, neuro-ethology, biophysics, morphology, bioinformatics). Advanced English communication skills as well as excellent teamwork abilities are expected. Each position comes with a teaching requirement of 2 h/week. SCUBA diving experience is an asset.

Formal employment procedures will be carried out by the university's central administration. The pay grade E13 refers to the German federal public service scale (TV-L). Each position is for 50%. The contract is initially limited to three years. The successful candidates will also be integrated in applications for extra-mural funding with senior team members.

Disabled candidates will be given preference over other equally qualified applicants. The University seeks to raise the number of women in research and teaching and therefore encourages equally qualified women to apply.

Please send your application in English as a single pdf file to [office.michiels@biologie.uni-tuebingen.de](mailto:office.michiels@biologie.uni-tuebingen.de). This one file should include (1) a letter of motivation stating your research interests, (2) full CV, and (3) contact details incl. email addresses of at least two referees. More information on <https://uni-tuebingen.de/de/2897>. We shall start screening applications from 31 October 2019, but will continue to accept applications until the positions are filled. The earliest starting date is 15 January 2020.

Prof. Dr. N. Michiels, University of Tübingen, Department of Biology, Institute of Evolution and Ecology, Auf der Morgenstelle 28, 72076 Tübingen, Germany ([nico.michiels@uni-tuebingen.de](mailto:nico.michiels@uni-tuebingen.de)).

Nico Michiels <[nico.michiels@uni-tuebingen.de](mailto:nico.michiels@uni-tuebingen.de)>

bush@biology.utah.edu

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## UUtah HostParasiteCoevolution

Graduate positions: Host-parasite coevolutionary ecology Clayton-Bush Lab, School of Biological Sciences, Univ. of Utah

We are seeking two highly motivated Ph.D. students interested in the evolutionary ecology of bird-parasite systems. Projects in our lab focus on host-parasite coadaptation and diversification. Most work involves birds, their external parasites, and the symbiotic bacteria in those parasites. We integrate systematics, ecology, population genetics, experimental evolution, genomics, functional morphology, animal behavior, and conservation biology. Our projects use captive birds in the lab, as well as fieldwork at home and abroad, most recently in the Galapagos and southern Bahamas. For more details concerning these projects see our lab website: <http://darwin.biology.utah.edu/> Positions will likely be available starting August 2020. Students in our lab are supported through a combination of fellowships, research assistantships, and teaching assistantships. Support is offered for five years, contingent upon reasonable performance.

Former PhD. students from our lab have strong track records. They have obtained positions at academic institutions ranging from R1 universities to small colleges and industry: [http://darwin.biology.utah.edu/PeopleCB\\_LabX.html](http://darwin.biology.utah.edu/PeopleCB_LabX.html) For information about the School of Biological Sciences at the University of Utah please visit [www.biology.utah.edu/](http://www.biology.utah.edu/) We are located in Salt Lake City, one of the most desirable places to live in the United States (particularly if you like hiking/camping in warmer months, and skiing in colder months). Students interested in our lab should apply through the School of Biological Sciences grad program in Ecology, Evolution and Organismal Biology. Admission requirements and applications are available here: <http://www.biology.utah.edu/graduate/eeob/phd.php> Application deadline is January 3rd, 2020. We are happy to chat with potential applicants by Skype. But please start with an email inquiry to one or both of us:

Dr. Dale H. Clayton (clayton@biology.utah.edu) Dr. Sarah E. Bush (bush@biology.utah.edu)â euro Â

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## UYork ParasiteComparativeGenomics

We welcome applicants for a fully funded PhD studentship in Department of Biology at the University of York on molecular adaptation in Leishmania parasites.

[www.findaphd.com/phds/project/molecular-adaptation-in-leishmania-parasites/?p112769](http://www.findaphd.com/phds/project/molecular-adaptation-in-leishmania-parasites/?p112769) The project will study the molecular evolution of Leishmania parasites, using both bioinformatic and biochemical approaches. The successful student will produce multiple complete genomes from Trypanosomatid species using Oxford Nanopore Technology (ONT), to discover the genomic changes that led to pathogenesis. By applying CRISPR/Cas9 gene editing technology, you will recreate or revert gene evolution, then use biochemical/cellular approaches to describe the phenotypic consequences of these genetic alterations, with a focus on intracellular parasitism.

The PhD will be supervised by Dr. Daniel Jeffares ([www.jeffareslab.org](http://www.jeffareslab.org)) and Prof. Jeremy Mottram ([www.mottramlab.org](http://www.mottramlab.org)). At York you'll be part of a well-resourced community of world-leading Leishmania researchers with active collaborations in Africa, Brazil, Sri Lanka, ensuring that your work will be well-guided, utilised effectively and widely dispersed to the community. The University of The University of York has leading expertise in ONT sequence analysis, and is one of only 11 certified Oxford Nanopore service providers worldwide.

The studentship is fully funded for three years by the Department of Biology and covers: (i) a tax-free annual stipend at the standard Research Council rate (pounds 15,000 estimated for 2020 entry), (ii) research costs, and (iii) tuition fees at the UK/EU rate. It is open to UK/EU students only.

FOR MORE INFORMATION: visit the link below, or email [Daniel.jeffares@york.ac.uk](mailto:Daniel.jeffares@york.ac.uk). TO APPLY: <https://www.findaphd.com/phds/-project/molecular-adaptation-in-leishmania-parasites/?p112769> "daniel.jeffares@york.ac.uk" <daniel.jeffares@york.ac.uk>

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## Jobs

ArizonaStateU ComputationalEvolution . . . . . 56	UArkansas GenomicsBioinformatics . . . . . 73
ArizonaStateU EvolutionaryChange . . . . . 57	UBristol FieldAssist Butterflies . . . . . 74
ArizonaStateU EvolutionaryMedicine . . . . . 58	UCalifornia Chico Microbiology . . . . . 74
ArizonaStateU EvolutionBiophysics . . . . . 59	UCalifornia Riverside EvolutionaryGenomics . . . . . 75
AuburnU LabTech FishEvolution . . . . . 60	UCalifornia SanDiego LabTech SticklebackEcoEvo . 76
CenterNatHist Hamburg 1yr MolecularBioinformatics 60	UCincinnati EvolutionMedicine . . . . . 76
ColumbiaU EvolutionaryBiology . . . . . 61	UColorado Denver PlantEvolution . . . . . 77
GeorgeWashingtonU EvolutionaryBiology . . . . . 62	UDenver EvolutionaryBiol . . . . . 77
IdahoStateU HerbariumCurator . . . . . 62	UHouston EcolGenomics . . . . . 78
JournalEvolutionaryBiology EditorialOffice . . . . . 63	UIdaho ResSpecialist InsectEvolution . . . . . 78
KewGardens PlantFungalBioinformatics . . . . . 64	UMississippi GlobalChangeEcophysiolgist . . . . . 79
Mainz JuniorGroupLeader SocialEvolution . . . . . 64	UNebraska EvolutionBehavior . . . . . 79
MarquetteU EvolutionaryPhysiology . . . . . 65	UNorthCarolina Wilmington 5 EvolutionaryBiology 80
MaxPlanck ResearchGroupLeader EvolutionBehaviour 66	UNorthTexas 3 SystemsBiol InvertBiol ConservBiol 81
MNH Raleigh ConservationGenetics . . . . . 67	UNotreDame EvolutionHumanDisease . . . . . 82
NHM London HeadOfLifeSciences . . . . . 68	UScranton EvolutionaryBiol . . . . . 82
NorthernArizonaU EvolutionaryEntomology . . . . . 68	USGS Flagstaff AZ Genetics . . . . . 83
OklahomaStateU PlantEcology . . . . . 69	UtahStateU EvolEcolGeneticsPhys . . . . . 84
PalmBeachAtlanticU TeachingEvolution . . . . . 69	UVirginia BiologyDataScience . . . . . 85
PekingU PlantTaxonomyPhylogeographyPhylogenetics 69	UWashington Genomics . . . . . 86
SyracuseU Bioinformatician . . . . . 70	UWisconsin Madison EvolutionaryBiology . . . . . 87
TowsonU BioinformaticsBiostatistics . . . . . 70	UWisconsin Milwaukee MicrobialGenetics . . . . . 87
Tuebingen Germany 2 EvolEcolEcolGenomics . . . . . 71	Vienna PopulationGenetics . . . . . 88
UAlabama HostPathogenInteractions . . . . . 72	Vienna ResearchAssociate EvolutionaryModeling . 88
UAlabama MarineBiolEvolution . . . . . 73	VirginiaCommenwealthU EvolutionaryEcol . . . . . 89
	Xelect StAndrewsUK Genetics . . . . . 90

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### ArizonaStateU ComputationalEvolution

FACULTY POSITIONS IN ENGINEERING AND  
COMPUTER SCIENCE

JOINT WITH THE BIODESIGN INSTITUTE

The Ira A. Fulton Schools of Engineering (FSE) at Arizona State University (ASU) and the Biodesign Center for Biocomputation, Security and Society (CBSS) invite applications for multiple tenured or tenure-track faculty positions. Areas of interest include: bio-inspired computing and modeling (especially immunology, evolution,

ecology), cybersecurity, software engineering, and intelligent systems. Originality, fit with the Center, strong interdisciplinarity, and the potential impact of the candidate are higher priorities than specific research area. CBSS focuses on projects that require tight integration of biological principles and computational abstractions, emphasizing defenses against malicious behavior in natural and artificial complex systems.

We seek applicants who will contribute to our programs and expand collaborations between the Biodesign Institute and FSE. Located in Tempe with easy access to the outdoors and urban amenities, ASU's vibrant and innovative approaches to research and teaching are charting new paths in education and research in the public interest. Faculty members are expected to develop an internationally recognized and externally funded research program, adopt innovative educational practices

in graduate and undergraduate education, develop and teach graduate and undergraduate courses, advise and mentor graduate and undergraduate students, and undertake service activities within the university, in the professional community and at a national level.

Required qualifications include an earned doctorate in computer science, engineering, biological sciences, or related field and demonstrated research and teaching excellence appropriate to the candidate's rank. The Ira A. Fulton Schools of Engineering value demonstrated commitment to interdisciplinary research and teaching, history of extramural funding, and record of significant publications.

Appointments are expected to begin August 2020 at the rank of Assistant Professor, although exceptional candidates at other ranks will be considered. The tenure home may be in any of the Fulton Schools of Engineering, although the School of Computing, Informatics and Decision Systems Engineering is currently the most involved in the interest areas of the search. Teaching responsibilities will be to the School to which the candidate is appointed, and the research program will be closely tied to Biodesign CBSS. Applications should clearly address the candidate's teaching qualifications and experience relevant to a particular FSE program. Candidates are invited to submit an optional Diversity Statement, outlining their experience and commitment to enhancing diversity and access to education, and working broadly with diverse communities.

Review of applications will begin December 14, 2019; if not filled reviews will occur every two weeks thereafter until search is closed. Apply at <https://hiring.engineering.asu.edu>, candidates will be asked to submit the following through their Interfolio Dossier:

Cover letter  
Current CV  
Statement describing research interests  
Statement describing teaching interests (Optional)  
A short diversity statement  
Contact information for four references

For further information or questions about the search please contact Professor Stephanie Forrest ([steph@asu.edu](mailto:steph@asu.edu)).

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. See ASU's full non-discrimination statement (ACD 401) at <https://www.asu.edu/aad/manuals/acd/acd401.html> and the Title IX statement at <https://www.asu.edu/titleIX/> – Carlo C. Maley, Ph.D. Associate Professor Biodesign Institute School of

Life Sciences Arizona State University

Office: +1-480-727-7320

Carlo Maley <[maley@asu.edu](mailto:maley@asu.edu)>

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## ArizonaStateU EvolutionaryChange

Assistant/Associate/Full Professor School of Life Sciences and the Biodesign Center for Mechanisms of Evolution Arizona State University

The School of Life Sciences (SOLS) and the Biodesign Center for Mechanisms of Evolution (CME) at Arizona State University (ASU) invite applications for a full time, tenure-track, open rank faculty position with an anticipated start date of August 16, 2020. Rank and tenure status will be commensurate with experience. This is the third of six anticipated new Center faculty positions, focused on the mechanistic processes underlying evolutionary change. The CME occupies a floor in a new building in the Biodesign Institute, which itself supports a diversity of other interdisciplinary centers and is well-equipped with state-of-the-art facilities. The CME is part of a growing community of evolutionary biologists at ASU (<https://sols.asu.edu/evolutionary-biology-faculty> and <http://asupopgen.org>). Learn more about what The College of Liberal Arts and Sciences has to offer by visiting <https://thecollege.asu.edu/faculty>. The research focus of the Center is primarily at the cellular level, with the group being populated by scientists from the areas of cell biology, microbiology, biophysics, biochemistry, and population genetics. The successful candidate will join a dynamic faculty working to advance innovative research and excellence in teaching through its work in the diverse and growing undergraduate and graduate student population at ASU. We invite you to learn more about the School of Life Sciences, the Biodesign Institute, and Arizona State University by visiting <https://sols.asu.edu>, <https://biodesign.asu.edu/> and <https://newamericanuniversity.asu.edu/>, respectively. Candidates can anticipate competitive salary and start-up packages.

Successful candidates will be expected to develop an innovative, extramurally-funded, independent research program; fulfill teaching requirements at both the undergraduate and graduate levels, including mentoring undergraduate and graduate students, and postdoctoral trainees; and have a commitment to outreach and service at levels within and outside the University community.



Interaction and collaboration with faculty of SOLS and with other groups in the Biodesign Institute, the School of Molecular Sciences, and the recently announced Mayo Clinic and ASU Alliance for Health Care partnership is encouraged.

**Minimum Qualifications:** A doctoral degree or MD/PhD in the biological sciences or a related field, and one or more years of relevant postdoctoral experience at the time of appointment; demonstrated research and teaching/mentoring excellence; a significant commitment to evolutionary biology and to integrating theory with empirical work; a demonstrated record of significant publications; and potential to develop an innovative research program on the mechanisms of evolution.

**Desired Qualifications:** Interest and training in understanding the mechanisms of evolution at the cellular and/or population-genetic levels; research areas that complement expertise of existing faculty and will expand our overall research and instructional capabilities. Examples of desired research foci include: the molecular mechanisms of evolution in experimental microbial populations; the evolution of protein structure and function; the evolution of bioenergetic and growth properties of cellular and subcellular features; the mechanisms underlying cell biological scaling laws; the evolution of intracellular communication systems such as transcription and signal transduction; and the development of high-throughput / nanotechnological approaches for addressing these issues. We are fully open to candidates whose research has applied implications. Demonstrated ability to work with diverse student populations and/or reaching out to diverse communities is desirable.

To apply, please go to <http://apply.interfolio.com/69482> to submit required application materials electronically. Materials shall include, (1) cover letter that includes contact information (including email addresses) for three references who may be contacted at a later stage of consideration, (2) a comprehensive curriculum vitae that includes a complete publication record, (3) three representative publications, (4) a statement of research vision and plans, (5) a statement of teaching philosophy/experience, and (6) a statement addressing how your past and/or potential contributions to diversity and inclusion will advance ASU's commitment to inclusive excellence. All applications must be sent electronically. Specific scientific inquiries can be addressed to Michael Lynch, Director of the CME ([mlynch11@asu.edu](mailto:mlynch11@asu.edu)).

Application deadline is November 19, 2019. Applications will continue

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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 EvolutionaryMedicine

Assistant, Associate or Full Professor / ASU / Center for Evolution & Medicine

The Center for Evolution & Medicine and the School of Life Sciences at Arizona State University (ASU) invite applications for a full time openrank, tenured or tenure track faculty position. Rank and tenure status will be commensurate with experience. The anticipated start date is August, 2020.

The Center for Evolution and Medicine seeks a researcher who will advance our Precision Medicine 2.0 vision and build the evidence that evolutionary approaches produce better health outcomes (<http://evmed.asu.edu/research>). We value equity and inclusion in our research, teaching, and outreach. All approaches are welcome including field, clinical, labbased, or computational research. Clinical relevance and potential collaborations in clinical settings are encouraged. Preference will be given to candidates who enhance the Center's current strategic research efforts (the role of sex differences in reproduction and health outcome, processes that buffer non-industrial populations from cardiometabolic diseases, mechanisms of disease tolerance and resistance, and/or long-term coevolution of humans and pathogens), and/or lead a new team-based strategic initiative. Evidence of effective teaching and interest in teaching evolutionary medicine and engaging in outreach is desired. Learn more about what The College of Liberal Arts and Sciences has to offer by visiting <https://thecollege.asu.edu/faculty>. This position is part of an ASU presidential initiative to advance the field of evolutionary medicine. ASU is an institution that rewards transdisciplinary, team research and innovation. The Center for Evolution and Medicine currently includes faculty members from the School of Life Sciences, School of Human Evolution and Social Change, the Department of Psychology, and the School of Mathematical and Statistical Sciences. ASU has clinical partnerships with providers including the Mayo Clinic and Banner Hospitals and has successfully obtained clinical privileges for practicing physicians with local care providers. Newly remodeled facilities include offices, collaboration spaces, meeting rooms and laboratories in the Center

for Evolution and Medicine that encourage interactions and provide space for events.

The successful candidate will be expected to develop or maintain an innovative, independent, extramurally funded research program, provide inclusive classroom instruction, contribute to curriculum development, mentor students and postdoctoral fellows, interact with a transdisciplinary group of colleagues, and provide service to the department, college and university. A competitive startup package will be provided.

**Minimum Qualifications:** a doctoral degree or an MD by the time of appointment, a track record of successful research, and an interest in using evolutionary biology to address questions about health and disease. Candidates for rank of Associate or Full Professor must have a demonstrated record of extramural funding.

**Desired Qualifications:** publications in refereed journals; experience working in a transdisciplinary, team environment; capacity to enhance one or more of the Center's strategic research efforts or to generate a new transdisciplinary, team science effort consistent with the Center's goals; ability to conduct laboratory-based research; access to or capacity to generate clinically relevant populations; demonstrated excellence in teaching and/or mentoring; demonstrated success of inclusive research and education, for example, by meeting the needs of diverse student populations and/or engaging with diverse communities.

To apply, please go to <http://apply.interfolio.com/69204> submit the following materials electronically: (1) a cover letter that specifies the rank for which you seek consideration and why this position is a good fit for you and contact information (including email addresses) for three references who may be contacted at a later stage of consideration, (2) curriculum vitae, (3) three representative publications, (4) a statement of research vision and plans, (5) a statement of teaching philosophy/experience, and (6) a statement addressing how your past and/or potential contributions to diversity and inclusion will advance ASU's commitment to inclusive excellence. Only electronic applications will be considered.

The application deadline is November 19, 2019. 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 filled. For additional information, please feel free to contact Ken Buetow ([kenneth.buetow@asu.edu](mailto:kenneth.buetow@asu.edu)) or James Collins ([jcollins@asu.edu](mailto:jcollins@asu.edu)).

The College of Liberal Arts and Science values our cul-

tural and

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## ArizonaStateU EvolutionBiophysics

Open Rank Professor in Evolution and Biophysics Department of Physics Arizona State University

The Biodesign Center for Mechanisms of Evolution (<https://biodesign.asu.edu/mechanisms-evolution>) and Department of Physics (<https://physics.asu.edu/>) at the Arizona State University invites applications for a full-time, open-rank, tenured or tenure-track faculty position in any area linking evolution and biophysics, with an anticipated start date of August 2020. Rank and tenure status will be commensurate with experience. Areas of interest include both experimental and theoretical approaches to understanding evolution from a physics perspective from the molecular to the cellular level.

This position is one of six new CME faculty positions focused on the mechanistic processes underlying evolutionary change. The growing group consists of scientists from the areas of cell biology, microbiology, biophysics, biochemistry, and population genetics. The CME is located within the Biodesign Institute, which itself supports a diversity of other interdisciplinary centers and is well-equipped with state-of-the-art facilities. The CME is part of a growing community of evolutionary biologists at ASU (<https://sols.asu.edu/evolutionary-biology-faculty> and <http://asupopgen.org/>). The candidate will also be associated with one of the largest biophysics groups within a Physics Department in the US, the Center for Biological Physics (<https://cbp.asu.edu/>).

Successful candidates will be expected to develop an innovative, extramurally-funded, independent research program; fulfill teaching requirements at both the undergraduate and graduate levels, including mentoring undergraduate and graduate students, and postdoctoral trainees; and have a commitment to outreach and service at levels within and outside the University community. Interaction and collaboration with faculty in the School of Life Sciences, the School of Molecular Sciences, the

Center for Biological Physics as well as within other groups in the Biodesign Institute is encouraged.

Minimum Qualifications:

Doctorate in physics, biophysics, or a related discipline (e.g., bioengineering, physical chemistry) by time of appointment.

Demonstrated potential to establish an innovative externally-funded research program.

§A significant commitment to integrating theory with experiments elucidating mechanisms of evolution.

Commitment to excellence in teaching.

Desired Qualifications:

Postdoctoral experience. An established record of research accomplishments. Experience working in an interdisciplinary environment, and research that complements the expertise of existing faculty and will expand our overall research and instructional capabilities. Demonstrated success meeting the needs of diverse student populations and/or reaching out to diverse communities. The Tempe campus of Arizona State University has approximately 60,000 students. It is located in the rapidly growing metropolitan Phoenix area, providing a wide variety of recreational and cultural opportunities. Learn more about what The College of Liberal Arts and Sciences has to offer by visiting <https://thecollege.asu.edu/faculty> Review of applications will begin November 20, 2019. If not filled, applications will be evaluated every two weeks thereafter until the search is closed. To apply, please submit electronically, to <http://apply.interfolio.com/69218> : (1) a cover letter, including the names and email addresses of three references; (2) a curriculum vitae with a list of publications; (3) a succinct (2-5 page) outline of future research plans; (4) a 1-page statement of teaching philosophy and interests; and (5) a brief statement addressing how your past and/or potential contributions to diversity and inclusion will advance ASU's commitment to inclusive excellence. Inquiries and nominations should be directed to: Michael Lynch at [mlynch11@asu.edu](mailto:mlynch11@asu.edu)

The College values our cultural and intellectual diversity, and continually strives to foster a welcoming and inclusive environment. We are especially interested in applicants who can strengthen the diversity of the academic community.

A background check is required prior to employment.

ASU 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. For

more information on ASU's policies, please see: <https://www.asu.edu/aad/manuals/acd/acd401.html> and its complete

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## AuburnU LabTech FishEvolution

The Bernal Lab at Auburn University is seeking for a motivated and energetic laboratory technician for experiments on marine fishes.

The lab will focus on understanding the molecular and phenotypic responses of fishes to human-mediated and natural stressors. The primary duties for the job are maintaining live marine fishes in aquaria for experiments (including larvae and eggs), general maintenance of the aquarium facilities, and maintenance of the lab (ordering supplies, shipping samples, etc.). Previous experience with molecular techniques (RNA/DNA extraction, PCR, etc.) is desirable but not required. The technician should also be reliable, organized and communicative, with good leadership skills, and willing to guide graduate and undergraduate students in the lab.

The position will initially be for 1 year, with possible extension into a second year depending on job performance and availability of funds. This is a full-time appointment (bi-weekly staff category), and includes health insurance through Auburn University. Base salary is \$35,000.00, negotiable based on experience. Auburn is a safe and affordable college-town with lots of opportunities for outdoor activities. Consideration of candidates will begin October 30 2019, and the position will be open until filled.

To apply, please follow the steps at the Auburn Employment Website: [www.auemployment.com/applicants/Central?quickFind=4168](http://www.auemployment.com/applicants/Central?quickFind=4168) Contact me via email if you have additional questions at [mab0205@auburn.edu](mailto:mab0205@auburn.edu) Moisés A. Bernal, PhD Assistant Professor Department of Biological Sciences Auburn University <https://sites.google.com/site/moisեսbernalresearch/> [bernal.moises@gmail.com](mailto:bernal.moises@gmail.com)

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## CenterNatHist Hamburg 1yr MolecularBioinformatics

The Center for Natural History - CeNak -, Universität Hamburg invites applications for a

RESEARCH ASSOCIATE Head of Molecular Bioinformatics - SALARY LEVEL 13 TV-L -

The position in accordance with Section 28 subsection 3 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG) commences on the earliest date possible.

This is a fixed-term contract in accordance with Section 2 of the academic fixed-term labor contract act (Wissenschaftszeitvertragsgesetz, WissZeitVG). The term is fixed until 31.12.2020. The position calls for 39 hours per week.

CeNak is currently being evaluated for acceptance to the Leibniz Association. If the evaluation is positive, it may be possible to continue employment. As the new employer, the Leibniz Institute retains the right to determine whether employment will continue.

Responsibilities: Duties primarily include teaching and research. Research associates may also pursue independent research and further academic qualifications.

Specific Duties: The scientist responsible for molecular bioinformatics will establish the most advanced bioinformatic analysis methods for molecular genetic and genomic data in biodiversity and evolutionary research at the Center for Natural History. He or she supports CeNak scientists in the analysis of such data and in planning and proposal of research projects. He or she is also responsible for the conception, configuration and coordination of the hardware (workstations, galaxy server, clusters in the computing centre) for molecular genetic data analysis and instructs users in the usage of hardware and software for molecular genetic data analysis. He or she participates in archiving molecular genetic data sets.

Requirements: A university degree in a relevant subject plus doctorate. Programming of scripts in Python/PEARL for analyses of genomic data sets. Advanced knowledge in R (application, programming). Advanced knowledge in the application and development of bioinformatic methods for the analysis of molecular genetic and genomic data for systematic and population

genetic research. Independent scientific research, the ability to work in a team and the interest in testing and further developing new methods and applications are essential.

The University aims to increase the number of women in research and teaching and explicitly encourages women to apply. Equally qualified female applicants will receive preference in accordance with the Hamburg act on gender equality (Hamburgisches Gleichstellungsgesetz, HmbGleiG).

Qualified disabled candidates or applicants with equivalent status receive preference in the application process.

For further information, please contact Prof. Dr. Bernhard Hausdorf (Hausdorf@zoologie.uni-hamburg.de).

Applications should include a cover letter, a tabular curriculum vitae, and copies of degree certificate(s). Please send applications by 13.11.2019 to: Universität Hamburg, Prof. Dr. Bernhard Hausdorf, Centrum für Naturkunde - CeNak, Martin-Luther-King-Platz 3, 20146 Hamburg.

Please do not submit original documents as we are not able to return them. Any documents submitted will be destroyed after the application process has concluded.

Prof. Dr. Bernhard Hausdorf Zoological Museum - Malacology / //Center of Natural History////(CeNak)// /Universität Hamburg Martin-Luther-King-Platz 3 20146 Hamburg - Germany P +49 40 42 838 2284 Email: hausdorf@zoologie.uni-hamburg.de <mailto:hausdorf@zoologie.uni-hamburg.de> <https://www.cenak.uni-hamburg.de/en/-forschung/abteilungen/malakologie/publikationen.html>  
Bernhard Hausdorf <hausdorf@zoologie.uni-hamburg.de>

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## ColumbiaU EvolutionaryBiology

Position Title: Assistant Professor (Tenure-Track) Department: Ecology, Evolution and Environmental Biology Location: Morningside Campus

The Department of Ecology, Evolution, and Environmental Biology (E3B) at Columbia University invites applications for a faculty member at the Assistant Professor level to begin July 1, 2020. This is a search for an expert in the field who uses modern experimental, computational, or theoretical approaches in the lab or in the



field to study outstanding questions in areas relevant to the Department. The successful candidate is expected to establish a vigorous, externally funded research program that complements and augments existing strengths within E3B, and to participate in undergraduate and graduate teaching.

E3B is an intellectually diverse and stimulating department consisting of a vibrant and close-knit community. It has strong links to other departments and disciplines at the University, including evolutionary biologists ([evolutionatcolumbia.org](http://evolutionatcolumbia.org)), earth and sustainability scientists (Lamont Doherty Earth Observatory and the Earth Institute), infectious disease transmission (Columbia School of Public Health), and neuroscientists (Zuckerman Mind Brain Behavior Institute). E3B also has close ties with New York partner institutions, including the American Museum of Natural History, the New York Botanical Garden, the Wildlife Conservation Society, and the Eco-Health Alliance. These connections provide excellent opportunities for interaction and collaboration.

The application deadline is December 2, 2019. Applications must include a cover letter, curriculum vitae, a statement of research interests, a one-page teaching statement, and contact information for three references. Please note that you will not be able to submit your application without providing the names and email addresses of three people who will provide reference letters. Interviews will begin in January, 2020. Please submit applications through Columbia University's Recruitment of Academic Personnel System (RAPS) at: <http://pa334.peopleadmin.com/postings/4280> Minimum Degree Required: PhD Minimum Qualifications: Strong research and publication record Preferred Qualifications: Training and experience in one or more subdisciplines of the Department Columbia University is an Equal Opportunity/Affirmative Action employer.

All applications must be sent electronically. Specific inquiries can be addressed to Ruth DeFries [atrd2402@columbia.edu](mailto:atrd2402@columbia.edu).

Maire Keane

Administrative Coordinator, Assistant to: Shahid Naeem, Chair Department of Ecology, Evolution, and Environmental Biology (E3B) Columbia University

1200 Amsterdam Avenue, Room 1014 New York, NY 10027 P: (212) 851-5833 E: [mk4283@columbia.edu](mailto:mk4283@columbia.edu)

"Maire K. Keane" <[mk4283@columbia.edu](mailto:mk4283@columbia.edu)>

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## George Washington U Evolutionary Biology

Tenure-track Faculty Position in Evolutionary Biology  
Department of Biological Sciences The George Washington University

The Department of Biological Sciences at the George Washington University (GWU) invites applicants for a tenure-track faculty position in Evolutionary Biology at the rank of Assistant Professor, to begin as early as the Fall 2020 Semester. The successful candidate will complement existing strengths in multidisciplinary research in Evolutionary Biology, Phylogenetics, Evo-Devo, and Comparative Biology, and will be expected to establish and maintain an externally funded research program comprising graduate and undergraduate students. Teaching duties involve a core undergraduate course in Evolution plus an upper-division course in their specialty. We encourage applications from individuals with identities historically underrepresented in the sciences and welcome applications from individuals who have experience working with diverse student populations.

Office and laboratory space will be housed in Bell Hall. Core facilities available at GWU include greenhouse, genome sequencing, imaging, nano-fabrication, histology, flow-cytometry, and animal research space. Our location in Washington DC offers superior undergraduate and graduate learning opportunities through access to the Smithsonian's National Museum of Natural History, the National Zoo, The National Institutes of Health, and a consortium of DC-area universities, as well as the recently created Computational Biology Institute at GWU.

Required Qualifications: A completed PhD and post-doctoral training in evolutionary biology or related field as well as research accomplishments, as evidenced by peer-reviewed publications in high quality journals in the area of evolutionary biology.

Application Procedure: To be considered, please complete an online faculty application at <https://www.gwu.jobs/postings/71361> and upload the following documents: (i) cover letter describing interests and qualifications for the position; (ii) curriculum vitae including a full list of publications; (iii) brief research and teaching statements; (iv) three recent publications; (v) a



diversity statement that highlights any past experiences and future plans related to supporting a diverse and inclusive educational community. Letters of recommendation from referees will be requested at a later stage for candidates advancing to the second stage of the process. Only complete applications will be considered.

Review of applications will begin on November 15, 2019 and continue until the position is filled, pending final budgetary approval. Employment offers are contingent on the satisfactory outcome of a standard background screening.

The George Washington University is an Equal Employment Opportunity/Affirmative Action employer that does not unlawfully discriminate in any of its programs or activities on the basis of race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity or expression, or on any other basis prohibited by applicable law.

Please contact Dr. Guillermo Orti (gorti@gwu.edu), Chair of the Evolutionary Biology Faculty Search Committee, with any questions.

Guillermo Orti <gorti@email.gwu.edu>

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## IdahoStateU HerbariumCurator

<https://isu.csod.com/ats/careersite/-JobDetails.aspx?id=866&site=1> The Department of Biological Sciences and the Idaho Museum of Natural History (IMNH) at Idaho State University (ISU) invite applications for a jointly-appointed 9-month, full time, tenure-track Assistant Professor / Assistant Curator in Life Sciences to begin August 2020. IMNH and the Department of Biological Sciences share a common mission to provide and nurture opportunities for understanding living systems through high-quality public education, scientific discovery, and service. The successful candidate will have a doctorate in the biological sciences or closely related field with substantial, documented experience and training in systematic botany and collections management. Postdoctoral experience is preferred. Startup funds are available.

The joint appointment workload will comprise research, collections curation, teaching, and service. The successful candidate will be expected to develop an active, extramurally funded research program in botanical sciences that mentors undergraduate and graduate students in

the Department of Biological Sciences. The research specialty is open, with preference for candidates whose research is rooted in field- and specimen-based evidence, and holds potential to build collections at the Museum. However, we encourage applications from individuals whose research addresses important questions at any scale, ranging from molecular to landscape. The candidate will manage Life Sciences collections and serve as liaison to Federal agencies for the repository. Teaching responsibilities for this position may include systematic botany and other courses in the candidate's area of expertise, or in the Department of Biological Science's core curriculum. The assistant professor will build a collaborative, interdisciplinary, and extramurally-funded research program that has the potential to enhance and complement the research of other faculty members in the department and the museum. The Department of Biological Sciences and the Museum have high expectations for collegiality and shared responsibility to meet our departmental and institutional visions and goals.

– Kathryn G Turner, PhD

kathryngturner.com

<https://profiles.impactstory.org/u/0000-0001-8982-0301-alienplantation.com>

Kathryn Turner <kathryn.g.turner@gmail.com>

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## JournalEvolutionaryBiology EditorialOffice

Managing Editor and Publicity Officer, European Society for Evolutionary Biology

The European Society of Evolutionary Biology (ESEB; [eseb.org/](http://eseb.org/)) is seeking to appoint a biologist with a strong interest in evolutionary biology to help run the editorial office of the Society's Journal of Evolutionary Biology (JEB; [onlinelibrary.wiley.com/journal/14209101](http://onlinelibrary.wiley.com/journal/14209101)), and to increase public awareness of the Society's activities. The successful person would work with, and under the guidance of, the ESEB Executive and the Editor in Chief (EiC) of JEB, but would have substantial autonomy and work flexibility. The position is envisaged as 80% to full-time, and the appointee will work largely remotely. The post is likely to be attractive to evolutionary biologists with recent experience in research but with a desire to move into the world of academic publishing.

In the context of the appointee's role as the JEB Managing Editor, s/he would, inter alia: assist the EiC

in the allocation of submitted manuscripts to the editors; tend to, improve and maintain the submission web site (Manuscript Central in ScholarOne); interact with authors and editors; contribute to the development of journal content and maintain contact with authors and referees from around the world; contribute to soliciting or commissioning manuscripts from WWW repositories; represent the journal within the researcher community, including travel to and presentations at scientific conferences and editorial board meetings; work closely with ESEB's Publisher, Wiley, to broaden the journal's reach, increase submission flow, promote the journal to authors, funders and the community of researchers, and enhance the author experience of submission to and publication in JEB; and discuss and publicize important JEB results via social media.

In the context of the appointee's role as Publicity Officer and assistant to the ESEB Executive, s/he would be charged with working closely with the ESEB office manager to advance the ESEB's mission by promoting and publicizing articles published in its journals and its other activities among its members and evolutionary biologists around the world, especially in Europe. This would include attendance of, and activities at, ESEB's regular European conferences.

The successful candidate will ideally: have a Ph.D. in ecology, evolution or related disciplines, with relevant publication experience; have experience or a strong interest in science journal publishing and peer review management; understand the ethical issues and financial drivers in journal publishing; possess strong negotiation/interpersonal skills to interact effectively with editors, authors, reviewers, and noted scientific authorities; have the flexibility to travel within Europe; have excellent organizational skills and the ability to work under pressure to meet deadlines; be curious, inquisitive and interested in science communication; have an excellent command of English; be familiar with social media tools; and have the right to live and work in a European country (whether EU or non-EU).

The appointee will receive a salary comparable to that of a senior postdoc in his or her country, with benefits according to local employment regulations.

Applications should be submitted as a single pdf and should include a cover letter, a curriculum vitae, and the names of three referees, and should be sent by email to the ESEB secretary, John Pannell: [john.pannell@unil.ch](mailto:john.pannell@unil.ch). Applications received by 30 November, 2019 will receive full attention.

John Pannell <[john.pannell@unil.ch](mailto:john.pannell@unil.ch)>

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## KewGardens PlantFungalBioinformatics

Job:, Bioinformatics Developer, Plant & Fungal Trees of Life Project (PAFTOL), Royal Botanic Gardens Kew, London, UK

Hours of work: Full time

Contract Type: Fixed Term (FTA)

Contract duration: 18 Months

Salary: 34,933 - 37,865 per annum depending on skills and experience

Location: Royal Botanic Gardens Kew, London, United Kingdom

Closing Date: Sunday 17th November 23:59 GMT

Job advert:

Bioinformatics Developer, Plant & Fungal Trees of Life Project (PAFTOL).

Kew is the world's leading botanic gardens, at the forefront of plant and fungal science, a UNESCO World Heritage Site and a major visitor attraction. We want a world where plants and fungi are understood, valued and conserved - because our lives depend on them. We use the power of our science and the rich diversity of our gardens and collections to provide knowledge, inspiration and understanding of why plants and fungi matter to everyone.

The successful candidate will be an active member of PAFTOL's multi-disciplinary team. The post holder, together with PAFTOL's other bioinformatics staff, will be responsible for completion of the design and build of software systems and data analysis necessary to ensure the long-term operation of the PAFTOL project.

You will be an excellent bioinformatician or software engineer with appropriate professional experience and a proven background in genomic data manipulation, ideally in a research environment. You will have a track record of helping to design and build robust bioinformatics pipelines, with good knowledge of distributed compute environments and workflow management systems. Experience of phylogenomics is desirable but not essential. You will be a proven team player, with the ability and appetite to help deliver project outputs, outreach, and to train and support researchers and students as required.

The salary will be 34,933 - 37,865 per annum, depending on skills and experience

We offer a fantastic range of benefits including a broad range of Learning and Development opportunities, with access to the Civil Service training curriculum, generous annual leave entitlement for new starters, family friendly policies, a choice of competitive pensions and flexible benefits scheme as well as free entry into a wide range of national museums and galleries.

We are committed to equality of opportunity and welcome applications from all sections of the community. We guarantee to interview all disabled applicants who meet the essential criteria for the post.

To apply and for further information visit: <https://careers.kew.org/vacancy/bioinformatics-developer-plant-fungal-trees-of-life-project-paftol-403448.html>, Vanessa Barber <V.Barber@kew.org>

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## Mainz JuniorGroupLeader SocialEvolution

### Job advertisement

The Faculty 10 Biology, Institute of Organismic and Molecular Evolution, Department Behavioral Ecology and Social Evolution at the Johannes Gutenberg University of Mainz is looking for an

Assistant Professor / Junior Group Leader (Akademischer Rat at a University / Bes.Gr. A 13 BBesG) (m/f/d) Evolution, Behavioral Ecology and / or Genomics of (Social) Insects Reference-No.: 18619-10-A13-ml

starting February 1st 2020 or later.

Employment will be as a civil servant, for initially for 3 years with the possibility of extensions (12-year rule applies).

In case the prerequisites of civil service are not fulfilled, an engagement as a Scientific Assistant (EG 13 TV-L) is possible. More information on potential contract length and conditions can be given upon request. The earliest start of the position will be February 1st 2020, preferably no later than 15.4.2020.

The research focus of the department under the direction of Prof. Dr. Susanne Foitzik lays within evolutionary biology and behavioral ecology of social insects. Our international research team consists of four groups working on the evolu-

tion, behavior, transcriptomics, chemical ecology of social insects (<https://www.blogs.uni-mainz.de/fb10-evolutionary-biology/research-groups/>) and collaboration with the other groups at the department are desirable. Scientific interactions or integration within the Research Training Group ???Gene regulation in Evolution??? (<https://www.imb.de/about-imb/joint-research-initiatives/genevo/>) would be advantageous.

We are seeking a highly motivated young researcher with a strong background in evolution, behavior and / or genomics to establish a junior research group within the Department of Behavioral Ecology and Social Evolution. Candidates must hold a Ph.D. and postdoctoral experience is necessary. The successful candidate should address evolutionary, behavioral ecological or genomic questions on insects, preferentially social insects. Scientific experience with the newest genetic methods (e.g. Next-Gen Seq, transcriptomics, Genomics, Proteomics, Microbiome, Metabolomics) including bioinformatic analyses is advantageous.

Excellent research conditions are available at new Bio-center I of the JGU with ???State of the Art??? genetic and chemical laboratories in Mainz. Furthermore, several new climate chambers are available for animal maintenance and controlled experiments. A small start-up package may be possible. A NextGen sequencing facility is available on campus. For further information, please contact foitzik@uni-mainz.de.

The successful candidate should have an excellent publication record. Experience with grant acquisition and teaching is advantageous. The candidate should set-up an independent, competitive research group and is encouraged to apply for grants in Germany or the EU (e.g., DFG, ERC). The position comes with a teaching requirement of 4 h per week during the semester in the Master and Bachelor programs. The candidate has the option to acquire a ???Habilitation???. The working language of the lab is English.

Requirements of appointment:

University degree and a PhD in biology (or related field) a full-time employment of at least two years and six months after university education

The Johannes Gutenberg-University Mainz is interested in increasing the number of women in science. Applications from female scientists are strongly encouraged. Similarly, qualified candidates with disabilities will be preferred.

The University of Mainz (<http://www.unimainz.de/-eng/>) hosts many excellent scientific institutions, including theInstituteofMolecularBiology(IMB,[www.imb-](http://www.imb-)

mainz.de) and Mainz is a historic city located on the Rhine River with many students and a rich social and cultural life

(<http://www.mainz.de/WGAPublisher/online/html/default/hpkr-5nkek8.en.html>).

Interested candidates should send an application (as a single e-mail pdf attachment) containing a CV, a list of publications (including reprints of the three most important publications), research and teaching statements, and contact information of two potential referees to:

Email: foitzik@uni-mainz.de Prof. Dr. Susanne Foitzik  
Institute of Organismic and Molecular Evolution Johannes Gutenberg University Mainz Biozentrum Hanns Dieter H??sch Weg 15 D-55128 Mainz Germany Tel: &#43;49 (0) 6131 39 27 840

Closing date for the application is November 20th, 2019. Earliest possible starting date is February 1st 2020,

later starting dates are negotiable, but participation in teaching during the summer semester 2020 (end April to July) is expected.

Prof. Dr. Susanne Foitzik

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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>

## MarquetteU EvolutionaryPhysiology

Assistant Professor of Biological Sciences (Physiologist - Tenure Track) Fall 2020

The Department of Biological Sciences at Marquette University seeks a candidate at the Assistant Professor level in the area of animal physiology. Individuals specializing in neurophysiology, comparative/evolutionary physiology, ecological and environmental physiology, cardiovascular physiology, body weight and exercise physiology, microbiome and toxicology are especially encouraged to apply. Expectations are to establish a vigorous extramurally funded research program, to synergize with the existing research in the department and to contribute to the undergraduate and PhD programs. Applicants must have a Ph.D. and a minimum of 3-years postdoctoral experience, with a demonstrated potential for high quality research and teaching excellence. The position will be

provided with a competitive startup, salary and benefits. Marquette University is committed to diversity and equity for all, regardless of age, culture, faith, ethnicity, race, gender, sexual orientation, language, disability and social class (<http://www.marquette.edu/intercultural/-statement.shtml>). The campus is in Milwaukee, a family friendly metropolitan city with diverse ethnicity and vibrant cultures.

Duties and Responsibilities Teaching will include two 3-credit or equivalent courses annually. The applicant is also expected to participate in the research training of our undergraduate and graduate students by mentoring students in independent study courses, lab rotations, and Ph.D. dissertation research. The successful candidate is to establish an innovative research program funded by extramural grants.

Required Knowledge, Skills and Abilities Earned doctorate or a terminal degree. Demonstrated potential for teaching excellence and high quality research.

Preferred Knowledge, Skills and Abilities Earned doctorate or a terminal degree and a minimum of 3 years of postdoctoral training. Demonstrated potential for high-quality research and teaching excellence.

Marquette University, an equal opportunity employer, is a Jesuit, Catholic university that educate undergraduates and graduates of diverse ethnicity via a wide array of programs in a respectful environment. We seek candidates who identify with the University Mission (<http://www.marquette.edu/about/mission.shtml>). We are especially interested in recruiting candidates who have the skills and/or commitment to working with current members at Marquette to create an effective inclusive learning environment that respects human dignity.

Special Instructions to Applicants All applications for this position must be initiated through Marquette University's electronic recruiting system <http://employment.marquette.edu/postings/12446>. For full consideration please submit a complete application. Review of applications will begin 12/1/2019 and continue until the position is filled. Each application should include a cover letter, CV, teaching philosophy, research plan, succinct diversity statement, unofficial graduate level transcripts, and the names and email addresses of 3 references. After submitting your application, contact the three references and have them submit letters of recommendation to biologysearch@mu.edu, including "Physiologist search" in the subject line of the email.

For additional information see: <https://employment.marquette.edu/postings/12478> Tony Gamble <anthony.gamble@marquette.edu>



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## MaxPlanck ResearchGroupLeader EvolutionBehaviour

Dear all,

we have an open position for an Independent Max Planck Research Group Leader at the Max Planck Institute of Animal Behavior ( < <https://www.ab.mpg.de/> > <https://www.ab.mpg.de/>). We are particularly interested in applicants who can advance theoretical and/or field research in our institute, in any field of animal behaviour. These positions come with independence and considerable financial and institutional support.

General information

The standard setting and contract conditions for Max Planck Research Groups are as follows:

\* the group leader position (W2; approximately equivalent to assistant or associate professor position without tenure) \* Postdoc position(s) \* PhD positions \* Technical Assistant position(s) as far as necessary \* internationally competitive start-up package for equipment \* adequate budget for consumables and running costs

The Max-Planck-Gesellschaft offers high flexibility in the use of the allotted money, allowing the group leaders to assign their budget individually according to need. The contract will be for 5 years plus a possible start-up phase. Limited extensions are possible after positive evaluation.

For further information please see: [https://www.ab.mpg.de/192097/job\\_full\\_offer\\_13891606](https://www.ab.mpg.de/192097/job_full_offer_13891606) . Application deadline 27 October 2019.

Mäggi Hieber Ruiz <maeggi.hieber@uni-konstanz.de>

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## MNH Raleigh ConservationGenetics

NC Museum of Natural Sciences: Senior Research Scientist in Mammalian Conservation Genetics Recruitment Range: \$72,172 - \$103,515 Location: NC Museum of Natural Sciences, Raleigh, NC Department: NC Dept of Natural and Cultural Resources Job Number: 19-11183 MNS65015792

Application Deadline: 12/12/2019 5:00 PM EST

The Department of Natural and Cultural Resources' (DNCR) vision is to be the leader in using the state's natural and cultural resources to build the social, cultural, educational, and economic future of North Carolina. Our mission is to improve quality of life by creating opportunities to experience excellence in the arts, history, libraries, and nature throughout North Carolina. The Department works to stimulate learning, inspire creativity, preserve the state's history, conserve the state's natural heritage, encourage recreation and cultural tourism, and promote economic development. Our goal is to promote equity and inclusion among our employees and our programming to reflect and celebrate our state's diverse population, culture, and history by expanding engagement with diverse individuals and communities. We encourage you to apply to become a part of our team.

Division Information: The North Carolina Museum of Natural Sciences, located in Raleigh, NC, is an award-winning major institution with a prominent State-wide, national and international profile. The mission statement of the NC Museum of Natural Sciences is "to illuminate the natural world and inspire its conservation".

The NC Museum of Natural Sciences is a high-performing nexus of research, collections, living collections, exhibitions and digital media, school and life-long education, community engagement, and a regional network—each fueled by great expertise and a diversifying portfolio of public, earned and contributed funds. Progress is forged by maximizing the dividends on a remarkable history of public and private sector investments with a growing array of partnerships.

Our high standards are reflected by our affiliation with the Smithsonian Institution; accreditation by the American Alliance of Museums; a National Medal at the White House in 2014 from the federal Institute of Museum and Library Services which recognizes just five of the nation's 35,000 museums annually for outstanding community service; national model research partnerships with the University of North Carolina System; this year's Thad Eure, Jr. Award from the Greater Raleigh Convention and Visitors Bureau for our economic impact through attracting conferences; and field-advancing innovations such as a fully accessible and free mobile app (NC NatSci) for visitors to navigate our exhibitions.

Section Information: The Research & Collections Section includes research scientists, collections curators, collections managers, and support professionals. The major responsibilities of the R&C section are to maintain and expand the Natural Sciences research collections



of the Museum, conduct original research, disseminate research results, participate in science communication, public outreach, education, and assist other Museum sections in programming and exhibit development. R&C staff and facilities are spread across three NCMNS buildings: the Nature Exploration Center (NEC), the Nature Research Center (NRC), and the Research Laboratory.

**Description of Work:** The NC Museum of Natural Sciences and the NC State University's College of Natural Resources jointly announce a search to recruit a scientist with a research program in mammalian conservation genetics. At the Museum, this position works in the Biodiversity Research Lab, a unit within the Museum's Research & Collections section. At NC State University, this position works in the Fisheries, Wildlife and Conservation Biology program within the Department of Forestry and Environmental Resources in the College of Natural Resources. The employee will have non-tenure track faculty status and associated teaching and service requirements as a Research Assistant Professor with the College of Natural Resources.

The ideal candidate will have both applied and basic aspects to their research, which may have both domestic and international focus (at least some of the research should be applicable to scientific questions within North Carolina and the southeast region). Potential areas of research specialty may include (but are not limited to) conservation genomics, population estimation and modeling, microbiome ecology, metabarcoding, non-invasive sampling, and/or eDNA. Researchers with collection-based research programs are encouraged to apply. The successful candidate will have many opportunities to participate in multi-disciplinary research teams that may include, among others, applied ecologists (wildlife, quantitative, spatial, forest), conservation biologists, and phylogenomicists. The successful candidate will also support graduate training through teaching and mentoring, and will teach an appropriate

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## NHM London HeadOfLifeSciences

The Natural History Museum (NHM) is seeking a new Head of the Department of Life Sciences.

The NHM is a world-class visitor attraction and leading science research centre. We use our unique collections and unrivalled expertise to tackle the biggest challenges facing the world today. We care for more than 80 million specimens, both in our London and Tring museums, spanning billions of years and welcome more than five million visitors annually.

The department of Life Sciences comprises one of the largest concentrations of organismal biologists in Europe and is home to one of the world's most extensive collections of biological specimens. It has a long-standing international reputation for excellence, innovation and leadership in the broad fields of systematics and evolution and in collection-based biological research. A forefront of leading research, we are experts in taxonomy, systematics and phylogenetics; biodiversity genomics; evolutionary biology; ecology; and biodiversity informatics.

Much more detail about the role is available at: <https://careers.nhm.ac.uk/templates/CIPHR/-jobdetail.1773.aspx> Informal enquiries can be directed to the Acting Head of Department, Mark Wilkinson, ([m.wilkinson@nhm.ac.uk](mailto:m.wilkinson@nhm.ac.uk))

The deadline for applications has been extended to October 14th.

Mark Wilkinson <[M.Wilkinson@nhm.ac.uk](mailto:M.Wilkinson@nhm.ac.uk)>

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## NorthernArizonaU EvolutionaryEntomology

The Department of Biological Sciences at Northern Arizona University invites applications for a tenure-track position in the area of Evolutionary Biology with a research focus on Arthropods at the rank of Assistant Professor, to begin August 2020. Preference will be given to applicants with experience using modern molecular techniques, bioinformatic methods, and/or phylogenetic approaches to study the evolution of arthropods at regional and global scales. The successful candidate will develop a research program to attract extramural funding, have a strong commitment to undergraduate and graduate education, including mentorship of doctoral students, and contribute to core courses in the biology curriculum, including Entomology and Evolutionary Biology.

**Minimum Qualifications:** -PhD in the biological sciences -Minimum of one-year post-doctoral experience

by August 2020

Preferred Qualifications: - Experience and commitment to excellence in teaching, especially related to undergraduate and graduate courses in the areas of Entomology and Evolutionary Biology - Demonstrated research expertise with modern molecular techniques, bioinformatics, and/or phylogenetic approaches, as evidenced by a strong record of publication and other scholarly productivity - Demonstrated experience with grant proposal development and funding success - Outstanding communication skills, as demonstrated by invited presentations, publications, and grants - Experience as a research mentor to undergraduate and graduate students - Experience in collections curation and/or demonstrated abilities that will leverage NAU's Colorado Plateau Museum of Arthropod Biodiversity toward new research and extramural funding opportunities - Experience working with people from culturally diverse backgrounds

Submission Deadline: This vacancy will be open until filled or closed. Review of applications will begin on November 18, 2019.

How to Apply: Proceed to [nau.jobs](http://nau.jobs), follow the 'Faculty and Administrator Openings' link, locate vacancy 604658, and then "Apply" at the bottom of the page.

Application must include: (1) a letter of application, (2) curriculum vita, (3) statement of research interests, (4) statement of teaching philosophy, (5) a summary of teaching evaluations, if available, and, (6) names and contact information for three references. Save all items as PDF and/or Word documents.

If you need assistance completing your application there are instructions available on the HR website or in person in the Human Resources Department located in Building 91 on the NAU Campus - on the corner of Beaver and DuPont Streets. If you are an individual with a disability and need reasonable accommodation to participate in the hiring process please contact the Office of Equity and Access at: 928-523-3312/TDD - 928-523-1006 or PO Box 4083, Flagstaff AZ 86011.

Jason A Wilder <[Jason.Wilder@nau.edu](mailto:Jason.Wilder@nau.edu)>

address fundamental questions in Plant Ecology, using approaches that contain a molecular, genetic, or chemical component. The successful candidate's research specialty may include, but is not limited to, chemical ecology, population or landscape genetics, or ecological -omics. The position will complement departmental strengths in cell and molecular biology, genetics, evolutionary biology, and ecology. The successful candidate is expected to build an innovative, externally-funded research program, and contribute to undergraduate and graduate teaching and mentoring. Effective and engaging teaching of introductory courses in plant biology and/or ecology and an advanced course in the candidate's specialty is expected. A Ph.D. in ecology, evolution, plant biology, or related fields is required; postdoctoral experience is expected.

All applications should be submitted online through Interfolio (<http://apply.interfolio.com/67955>) . Include 1) cover letter, 2) CV, 3) statement of research accomplishments and future objectives, 4) statement of teaching philosophy and goals, and 5) names and contact information for three references. Candidates from groups underrepresented in science and academia are especially encouraged to apply. Review of applications will begin November 22 and continue until position is filled, contingent upon availability of funding. Contact information: Destiny Goree, [destiny.goree@okstate.edu](mailto:destiny.goree@okstate.edu) , 405-744-5559. <http://plantbio.okstate.edu> .

Oklahoma State University, as an equal opportunity employer, complies with all applicable federal and state laws regarding non-discrimination and affirmative action. Oklahoma State University is committed to a policy of equal opportunity for all individuals and does not discriminate based on race, religion, age, sex, color, national origin, marital status, sexual orientation, gender identity/expression, disability, or veteran status with regard to employment, educational programs and activities, and/or admissions. For more information, visit <https://eeo.okstate.edu> .

Mark Fishbein <[mark.fishbein@okstate.edu](mailto:mark.fishbein@okstate.edu)>

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## OklahomaStateU PlantEcology

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## PalmBeachAtlanticU TeachingEvolution

The Department of Plant Biology, Ecology, and Evolution at Oklahoma State University in Stillwater (<http://plantbio.okstate.edu> ) seeks a tenure-track Assistant Professor to begin August 2020. The ideal candidate will

Job: Palm Beach Atlantic University Assistant/Associate Professor in Biology Date: Starting Fall 2020 Area of Expertise: Any biology sub discipline Location: West Palm Beach, Florida USA

The Department of Biology in the School of Arts & Sciences is seeking an Assistant Professor of Biology. The faculty member will teach general biology courses and labs, as well as classes in their area of expertise. Ph.D. preferred. Excellent teaching is required. Limited research with undergraduate students is expected. Application period is ongoing and will continue until the job is filled.

Contact Robert Hegna for further details. Robert\_Hegna@pba.edu <https://www.pba.edu/hr/faculty-administration-positions.html> ROBERT HEGNA <ROBERT\_HEGNA@pba.edu>

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### **PekingU PlantTaxonomyPhylogeographyPhylogenetics**

Faculty Position in Plant taxonomy, Plant Phylogeography and/or Plant Phylogenetics opening at Peking University

The School of Life Sciences at Peking University is announcing the opening of a faculty position in Plant taxonomy, plant phylogeography and/or plant phylogenetics. Hiring level will be commensurate with experience and achievements. The candidate should have a doctorate degree in the relevant field. People who are interested in the position with strong record of research with interdisciplinary approaches, strong teaching interest, and postdoctoral experience are especially encouraged to apply.

The school has an excellent reputation for basic biological research and teaching. The successful candidate might also be supported by the Peking-Tsinghua Center for Life Sciences. Application package that include cover letter, CV, research statement, teaching statement, three representative publications, and three reference letters should be sent to [gsmjobs@pku.edu.cn](mailto:gsmjobs@pku.edu.cn).

The recruitment continues until the position is filled. – Zhu Xiaojian, Ph.D. Search Committee Secretary [gsmjobs@pku.edu.cn](mailto:gsmjobs@pku.edu.cn)

“[gsmjobs@pku.edu.cn](mailto:gsmjobs@pku.edu.cn)” <[gsmjobs@pku.edu.cn](mailto:gsmjobs@pku.edu.cn)>

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### **SyracuseU Bioinformatician**

Assistant Professor - Bioinformatics

The Department of Biology at Syracuse University seeks applicants for a tenure-track position in Bioinformatics at the Assistant Professor level. Candidates should have demonstrated bioinformatics research experience, potentially including both computational and experimental skills, and will be expected to work collaboratively with other faculty in the Department of Biology, whose strengths include genetics, genomics and epigenetics. Candidates must have demonstrated expertise in the application of standard bioinformatics techniques, and should be interested in developing new methods through the application of statistical and algorithmic approaches, including Machine Learning, Artificial Intelligence, Data Analytics and Optimization Algorithms. The candidate is expected to develop a vigorous externally-funded research program and participate in graduate and undergraduate teaching and mentoring in the areas of his or her expertise. Candidates must have a PhD in a relevant area of biology and an outstanding record of research experience at the postdoctoral level.

This recruitment is part of the ambitious Invest Syracuse Big Data Initiative in the broad area of Genomics, Bioinformatics, Data Sciences and Analytics. Faculty hired into these positions will join a highly collaborative group of biologists and will contribute in a multidisciplinary research cluster that spans multiple departments in the College of Arts and Sciences, the College of Engineering and Computer Science, Falk College and Whitman School of Management. The Department of Biology also has strong research and educational ties to the adjacent Upstate Medical University and the State University of New York College of Environmental Science and Forestry.

Applicants should submit a cover letter, curriculum vitae, statements of research and teaching interests, and arrange for three references to send letters to <http://www.sujobopps.com/postings/81641>, by November 15th, 2019. The search will remain open until the position is filled. Syracuse University is interested in candidates who have the communication skills and cross-cultural abilities to maximize their effectiveness with diverse groups of colleagues, students and community members. Women, military veterans, individuals with disabilities, and members of other traditionally under-

represented groups are encouraged to apply. Syracuse University is an equal opportunity employer, as well as a federal contractor required to take affirmative action on behalf of protected veterans.

Competitive salary, start-up funds, and laboratory space will be provided. Located between the Adirondack Mountain, Finger Lakes, and Lake Ontario regions of upstate New York, the metropolitan area of Syracuse boasts cultural and recreational opportunities and offers a wide array of urban, small town, and rural living. Questions can be addressed to search chair Steve Dorus at sdorus@syr.edu.

Link to apply: <http://www.sujobopps.com/postings/-81641> "sdorus@syr.edu" <sdorus@syr.edu>

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## TowsonU BioinformaticsBiostatistics

Assistant Professor, Bioinformatics and Biostatistics Department of Biological Sciences The Jess and Mildred Fisher College of Science and Mathematics FCSM-3325

Position The Jess and Mildred Fisher College of Science and Mathematics invites applications for a tenure-track, 10-month Assistant Professor position in bioinformatics or biostatistics in the Department of Biological Sciences beginning Fall 2020.

Qualifications PhD in a relevant field of biology is required and postdoctoral experience is preferred. Candidates should have a strong foundation in statistical analysis. Examples of preferred skills include but are not limited to the following:

- Ability to conduct Bioinformatics analysis of large-scale omics data.
- Statistical analysis of data using software programs such as R.
- Knowledge of database design and development.
- Proficiency in scripting languages.
- Experience installing and running Linux-based Bioinformatics tools.

The successful candidate will be expected to possess a strong commitment to excellence in teaching, show potential for a productive research/scholarly program, and pursue extramural funding.

Responsibilities Teaching load is usually 9 contact hours per semester which typically consists of 1-2 classes per semester. Teaching responsibilities may include courses in bioinformatics, quantitative analysis, and a graduate-level course in the area of specialty. The candidate is expected to work in a collaborative environment with

other faculty to complement existing research in the department while also developing a research program that involves undergraduate and graduate students.

Department of Biological Sciences: The Department of Biological Sciences (<https://www.towson.edu/fcsm/-departments/biology/>) supports research spanning multiple disciplines, with an emphasis on collaborative, interdisciplinary work in cell and molecular biology, organismal biology and ecology, physiology, and science education. Faculty also actively contribute to three interdisciplinary degree programs: Animal Behavior; Molecular Biology, Biochemistry and Bioinformatics; and Environmental Science and Studies. The department provides a supportive environment for research and teaching and is committed to inclusive, excellent undergraduate and graduate student education in synergy with internationally recognized research programs. Linux servers are available for big data analysis, as is instrumentation to gather large data sets (next generation sequencing instrumentation for RNA and DNA analysis and additional instrumentation for protein analysis). In addition to faculty engaging in funded disciplinary research, the department houses two NIH Bridges grants and an Inclusive Excellence grant from the Howard Hughes Medical Institute devoted to increasing success and retention of all students in science. In January 2021, the Department, along with Chemistry and Physics, Astronomy and Geoscience, will be moving into a new, state-of-the-art science building which will create additional opportunities for collaboration and data collection.

TOWSON UNIVERSITY About TU Towson University was founded in 1866, is recognized by U. S. News and World Reports as one of the top public universities in the Northeast and Mid-Atlantic regions, is Baltimore's largest university, and is the largest public, comprehensive institution in the University of Maryland System. TU enrolls over 19,000 undergraduates and over 3,000 graduate students across six academic colleges (business, education, fine arts, health professions, liberal arts, science & mathematics), has over 865 full-time faculty, and offers more than 65 bachelor's, 45 master's, and 5 doctoral programs. Our centrally located campus sits on 330 rolling green acres and is 10 miles north of Baltimore, 45 miles north of Washington D.C., and 95 miles south of Philadelphia.

Application Process Review of applications begins immediately and continues until position is filled. Applications should include a curriculum vitae, separate statements of research and teaching interests including a description of how the candidate has worked with diverse student populations, and copies of three recent publications; applications and three letters of recom-



mentation (under separate cover) should be sent electronically to Brandi Mayo, Administrative Assistant (bmayo@towson.edu). Questions about the position can be directed to the chair of the search:

David J. Hearn, PhD

Department of Biological Sciences

Towson University

8000 York Road

Towson, MD 21252

dhearn@towson.edu

A Criminal Background Investigation is required for the hired candidate and the results may impact employment. Please note that the search number for which you have applied is FCSM-3325.

Steve Kimble

Clinical Assistant Professor, Towson University

skimble@towson.edu

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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>

## Tuebingen Germany 2 EvolEcolEcolGenomics

The Plant Evolutionary Ecology group and the Comparative Zoology group at the University of Tuebingen in Germany invite applications for two PhD positions in Evolutionary Ecology and Ecological Genomics.

In the project HerbAdapt, the PhD student (m/f/d) will investigate phenotypic variation and local adaptation of understorey plants in relation to forest management. Common-garden experiments and a large transplant experiment are core to this project. The student will be supervised by Niek Scheepens (Plant Evolutionary Ecology) and Pieter De Frenne (Ghent University, Belgium).

In the project ForGenDiv, the PhD student (m/f/d) will sequence material of 20 plant and arthropod species from the forest understorey and link these data to forest management. The student will be responsible for sampling all material as well as for molecular lab work and statistical analyses. This project will be supervised

by Henri Thomassen (Comparative Zoology) and Oliver Bossdorf (Plant Evolutionary Ecology).

The two projects will collaborate during sampling as well as through joint data analysis. Both projects are part of the Biodiversity Exploratories, one of the largest ecology projects in the world, which will allow the students to interact with many other ecological researchers.

The successful applicants will be based in Tübingen. The field work will take place across Germany in the Swabian Alb, Hainich-Duen and Schorfheide-Chorin regions. The University of Tuebingen is one of the oldest universities in Germany, and Tuebingen is a beautiful university town with a high quality of life. The Plant Evolutionary Ecology group and the Comparative Zoology group study the ecology, evolution and genomics of plants and animals in changing environments.

We are looking for students with strong interests in ecology and evolutionary biology. The successful candidates should have a MSc in biology (or equivalent), solid statistical skills (preferably in R), a good command of English, and a driving license (German or otherwise). Experience with plant ecological experiments is a plus for HerbAdapt, while training in sequence data analysis is a plus for ForGenDiv. Both positions are funded for 3 years (pending final confirmation by the DFG). Salary is at the scale 13 TV-L (65%). Starting date is 1 March 2020.

The University of Tuebingen aims at increasing the share of women in research and teaching and therefore particularly encourages women to apply. Disabled candidates will be given preference over other equally qualified applicants.

If you wish to apply, please send your CV, along with a letter of motivation and the contact details of two references as a single PDF to niek.scheepens@biologie.uni-tuebingen.de (HerbAdapt) or henri.thomassen@uni-tuebingen.de (ForGenDiv). Deadline for applications is October 31, 2019. For questions, please use the same email addresses as above.

\* University of Tuebingen: <https://uni-tuebingen.de/en/university/> \* Plant Evolutionary Ecology group: <https://uni-tuebingen.de/en/faculties/faculty-of-science/departments/-biology/institutes/evolutionecology/groups/plant-evolutionary-ecology/> \* Comparative Zoology group: <https://uni-tuebingen.de/fakultaeten/-mathematisch-naturwissenschaftliche-fakultaet/fachbereiche/biologie/institute/evolutionecology/lehrbereiche/vergleichende-zoologie/>

\* Biodiversity Exploratories: <https://www.biodiversity-exploratories.de/> Henri A. Thomassen, Ph.D. Institute of Evolution and



Ecology University of Tübingen Auf der Morgenstelle 28 D-72076, Tübingen Germany Email: henri.thomassen@uni-tuebingen.de Phone: +49 7071 29 76 947

Henri Thomassen <henri.thomassen@uni-tuebingen.de>

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## UAlabama HostPathogenInteractions

Assistant Professor Position in Host-Pathogen Interactions

The Department of Biological Sciences at the University of Alabama, Tuscaloosa invites applications for a full-time (9-month) tenure-track Assistant Professor position in Host-Pathogen Interactions. We are seeking applicants with a strong background in mechanistic studies on the interactions between pathogenic organisms, the microbiome, and/or viruses, and host defense systems. Candidates using model or non-model organisms and innovative methodologies are encouraged to apply. Applicants must have a Ph.D. in the Biological Sciences or related field, and post-doctoral (or equivalent job) experience. The successful applicant will be expected to establish an extramurally funded research program, demonstrate a commitment to teaching at both the undergraduate and graduate levels, and participate in departmental, college, and university service. Teaching responsibilities may include basic undergraduate courses such as microbiology, cell biology, or biochemistry as well as a graduate course in the successful candidate's area of expertise. The successful applicant will join a growing research core of highly collaborative faculty working in the areas of host-microbiome interactions, virology, microbial ecology, innate immunity, cell physiology, toxicology, pharmacology, and biological modeling.

Questions about the position should be addressed to the chair of the search committee, Dr. Kim Caldwell (kcaldwel@ua.edu). To apply, go to <https://facultyjobs.ua.edu>, complete the online application (Job #45988), and upload: (1) a cover letter; (2) CV; (3) statement describing past research achievements and future goals; (4) statement of teaching interests and philosophy; and (5) a list of three to five references (including contact information). The search committee will request letters of reference as needed. Consideration of applications will begin 2 December 2019, and will continue until the position is filled. Prior to hiring, the final candidate

will be required to pass a pre-employment background investigation. The start date is August 16, 2020. Additional information about the Department of Biological Sciences and this position can be found on our website at <http://bsc.ua.edu>. Applications from women and members of underrepresented groups in Biology are especially encouraged. The University of Alabama is an Equal Opportunity/Equal Access Employer and actively seeks diversity among its employees.

guibecker22@gmail.com

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## UAlabama MarineBioEvolution

The Department of Biological Sciences at The University of Alabama, Tuscaloosa invites applications for a full-time (9 month) tenure-track Assistant Professor position in Marine Biology to begin Fall 2020. This position will be based at the Dauphin Island Sea Lab (DISL; [www.disl.org](http://www.disl.org)) on the Alabama Coast near Mobile. DISL offers excellent research facilities and support. We seek a highly innovative and collaborative scientist with a strong academic background in Marine Biology. The successful candidate will use modern analytical techniques to address fundamental questions in their area of expertise, establish an extramurally funded research program, demonstrate a commitment to teaching at both the undergraduate and graduate levels, and participate in departmental, college, and university service. Candidates whose research investigates how climate change and anthropogenic activities are impacting coastal and/or marine processes, biological invasions, and evolutionary adaptations in response to these factors, are especially encouraged to apply. The successful candidate will be a highly motivated individual with the ability to interact with other faculty members in the Department of Biological Sciences and at the DISL. Minimum qualifications include a PhD in biology or related discipline, post-doctoral experience, and a strong record of publishing in peer-reviewed journals. Teaching responsibilities will include an undergraduate course taught during the summer program as well as specialized undergraduate and graduate courses in the successful candidate's area of expertise.

Questions about the position should be addressed to the chair of the search committee, Dr. Julie Olson (jolson@ua.edu). To apply, go to <https://facultyjobs.ua.edu>, complete the online application (Job #45968), and upload: (1) a cover letter; (2) CV; (3) statement describing past research achievements and future goals; (4) state-

ment of teaching interests and philosophy; and (5) a list of three to five references (including contact information). The search committee will request letters of reference as needed. Consideration of applications will begin December 2, 2019, and will continue until the position is filled. Prior to hiring, the final candidate will be required to pass a pre-employment background investigation. The start date is August 16, 2020. Additional information about the Department of Biological Sciences and this position can be found on our website at <http://bsc.ua.edu>. Applications from women and members of underrepresented groups in Biology are especially encouraged. The University of Alabama is an Equal Opportunity/Equal Access Employer and actively seeks diversity among its employees.

Kevin M. Kocot Assistant Professor, Department of Biological Sciences Curator of Invertebrates, Alabama Museum of Natural History The University of Alabama 307 Mary Harmon Bryant Hall 500 Hackberry Lane Tuscaloosa, AL 35487 office 205-348-4052 fax 205-348-4039 [kmkocot@ua.edu](mailto:kmkocot@ua.edu) | [www.kocotlab.com](http://www.kocotlab.com)

“Kocot, Kevin” <[kmkocot@ua.edu](mailto:kmkocot@ua.edu)>

Dan Lessner. ([dlessner@uark.edu](mailto:dlessner@uark.edu)). The University of Arkansas is an equal opportunity institution committed to achieving diversity in its faculty. Therefore, the university is especially interested in applications from qualified candidates who would contribute to the diversity of our academic departments. The university welcomes applications without regard to race/color, sex, gender, pregnancy, age, national origin, disability, religion, marital or parental status, protected veteran or military status, genetic information, sexual orientation, gender identity or any other characteristic protected under applicable federal or state law. Persons must have proof of legal authority to work in the United States on the first day of employment. All applicant information is subject to public disclosure under the Arkansas Freedom of Information Act.

Erica L. Westerman, PhD

Assistant Professor Department of Biological Sciences University of Arkansas Science & Engineering, Room 416 Fayetteville, AR 72701 [ewesterm@uark.edu](mailto:ewesterm@uark.edu)

<http://www.ericawesterman.org> Erica Lynn Westerman <[ewesterm@uark.edu](mailto:ewesterm@uark.edu)>

## UArkansas GenomicsBioinformatics

TENURE-TRACK ASSISTANT PROFESSOR in GENOMICS AND BIOINFORMATICS ??? The Department of Biological Sciences at the University of Arkansas invites applications for a tenure-track Assistant Professor faculty position in Genomics and Bioinformatics (Posting # 37386). We seek candidates who creatively apply genomics and bioinformatics to address significant questions in biology. Requirements include: a Ph.D. in biological sciences or a related field with post-doctoral experience, extensive experience in genomics and bioinformatics, and a strong research record. Expectations: establish an externally funded research program, contribute to undergraduate/graduate education, and service. All applicants must submit a cover letter, a curriculum vitae, a research statement, a teaching statement, a diversity and inclusion statement, and three letters of reference. For a complete position announcement and information regarding how to apply, visit <http://jobs.uark.edu/postings/37386>. For information about the department see: <http://biology.uark.edu>. Completed applications received by December 13, 2019 will be assured full consideration. Late applications will be reviewed as necessary to fill the position. Inquiries should be addressed to the committee chair Dr.

## UBristol FieldAssist Butterflies

The Evolution of Brains and Behaviour (EBAB) Lab (<http://shmontgomery.co.uk/index.html>) at the University of Bristol, UK is seeking a field assistant to help with developmental and behavioural studies of Heliconius butterflies at the Smithsonian Tropical Research Institute (STRI) in Gamboa, Panama. The successful candidate will spend approximately three months in Panama, beginning in mid-January 2020. The position is open to all students with a background in zoology and interest in animal behaviour or neurobiology.

Heliconius butterflies exhibit a marked expansion of the mushroom body, a region of the insect brain associated with learning and memory, being 3-4 times larger than in other Lepidoptera, including closely related Heliconiini genera. The EBAB Lab is investigating both the developmental basis and behavioural consequences of this expansion through developmental timeseries of neural tissue and behavioural experimentation across both Heliconius and non-Heliconius Heliconiini species.

The primary responsibilities of the field assistant will be to maintain stock butterfly populations and rear caterpillars. There will also be opportunities to collect

wild butterflies from surrounding forests, assist with behavioural experiments on long-term memory and learn to perform insect brain dissections and lab protocols for next-generation sequencing approaches. This is an excellent opportunity for a recent graduate to gain experience in lab work, experimental design and field collecting.

Dates: starting and finishing dates are flexible, but ideally the successful candidate will be available for three months, beginning in mid-January 2020.

Funding: the successful applicant will receive 800 USD per month, which comfortably covers living costs while in Panama. STRI requires that all researchers have health insurance, this is not provided but can be purchased through STRI at the applicant's cost. Financial assistance with air travel to and from Panama will be available if required.

Accommodation: application can be made for accommodation through STRI or arranged privately. Accommodation costs are approximately 250-300 USD per month. Gamboa is a small town, with all facilities within comfortable walking distance.

Interested applicants should have training in zoology or a related field, and should send a CV and brief statement of research interests to Fletcher Young (fletcherjyoung@gmail.com) and Laura Hebberecht (laurahebberecht@gmail.com). Applicants will be interviewed via Skype in mid-November 2019.

Applications will close 10 November 2019.

Fletcher Young <fletcherjyoung@gmail.com>

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## UCalifornia Chico Microbiology

California State University, Chico is hiring a tenure-track microbiologist. Our faculty have diverse research interests, and someone with interests in microbial evolution would be welcome. Chico is a great place to live. Here's a brief description and link to the posting:

CALIFORNIA STATE UNIVERSITY, CHICO, College of Natural Sciences invites applications for a full-time, tenure-track faculty position in the Dept. Biological Sciences at the Assistant or Associate Professor level to start August 2020. The position requires a Ph.D. in Microbiology or a related field. We recognize the modern view of microbiology is broad and includes but is not limited to: field microbiology, health microbiology, and applied and industrial microbiology. A strong inter-

est in teaching excellence, a strong publication record, a demonstrated ability or potential to establish externally funded research, and enthusiasm for mentoring undergraduates and graduate students in research is also required. Prefer postdoctoral experience in areas of specialty, and experience teaching and mentoring culturally and socioeconomically diverse students. The full position announcement is available at <https://jobs.csuchico.edu/postings/5783> Dr. Christopher T. Ivey Professor and Graduate Coordinator Biological Sciences 400 W. First St. California State University, Chico Chico, CA 95929-0515

530-898-5812 <http://ctivey3.wixsite.com/iveylab>  
 "ctivey@csuchico.edu" <ctivey@csuchico.edu>

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## UCalifornia Riverside Evolutionary Genomics

The Department of Evolution, Ecology, and Organismal Biology (EEOB) invites applications for a 9-month tenure-track faculty position at the rank of Assistant Professor in the area of Evolutionary Genomics starting July 1, 2020. Candidates should address key evolutionary questions using genomic data at the scale of populations, species or above, or questions involving evolution of the genome itself. Candidates proficient in the application of advanced statistical methods to genomic data are particularly encouraged.

The successful candidate will join a vibrant community of researchers in the EEOB Department, and in such graduate programs as EEOB, and GGB (Genetics, Genomics, and Bioinformatics), both of which involve outstanding interdepartmental groups of faculty. Other collaborative research groups on campus include the Center for Conservation Biology, the Center for Invasive Species Research, the Institute for Integrative Genome Biology, and the Environmental Dynamics and Geology (EDGE) Institute. The successful candidate will also have access to modern campus facilities including a genomics and proteomics core, a high-performance computing cluster, and the Center for Advanced Microscopy, and to the UC Natural Reserve System (UCNRS.org), an outstanding network of field stations in diverse California ecosystems. Consult <https://eeob.ucr.edu> for further details.

A Ph.D. in evolutionary genomics or a related discipline, at least one year of postdoctoral training, and demonstrated excellence in research are required. The

successful candidate must be willing and able to pursue extramurally funded research in order to develop a creative research program, and contribute to teaching in our undergraduate and graduate core curricula in evolutionary biology, genomics, and related areas within the department.

Applications must be submitted through: <https://aprecruit.ucr.edu/apply/JPF01192>, including a cover letter, curriculum vitae, separate statements of research and teaching interests, and up to three selected publication reprints. A statement addressing the candidate's past and potential future contributions to promote a diverse, equitable, and inclusive environment is also required. This can be reflected through research, teaching, supervision, mentoring, community engagement, service, and any of the other varied activities that are a part of an academic career. In addition, applicants should request that three letters of recommendation be submitted through this site.

Evaluation of applications will begin November 27, 2019, but the position will remain open until filled. For full consideration, applicants are encouraged to submit their applications prior to the above date. For more information about the position, please contact Dr. Leonard Nunney, Chair of the Search Committee, at [nunney@ucr.edu](mailto:nunney@ucr.edu). For inquiries regarding the application process, please contact Mary Stuart, Academic Personnel, at [mary.stuart@ucr.edu](mailto:mary.stuart@ucr.edu).

UCR is a world-class research university with an exceptionally diverse undergraduate student body. Its mission is explicitly linked to providing routes to educational success for underrepresented and first-generation college students. A commitment to this mission is a preferred qualification.

Advancement through the faculty ranks at the University of California is through a series of structured, merit-based evaluations, occurring every 2-3 years, each of which includes substantial peer input.

The University of California is an Equal Opportunity / Affirmative Action Employer with a strong institutional commitment to the achievement of excellence and diversity among its faculty and staff. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability, protected veteran status, or any other characteristic protected by law.

[nunney@ucr.edu](mailto:nunney@ucr.edu)

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## UCalifornia SanDiego LabTech SticklebackEcoEvo

The Rennison Evolutionary Ecology Lab seeks an enthusiastic and detail-oriented laboratory technician for research on the evolution and ecological diversification of threespine stickleback. Find the full job description and application link here: [https://jobs.ucsd.edu/bulletin/job.aspx?jobnum\\_in=101993](https://jobs.ucsd.edu/bulletin/job.aspx?jobnum_in=101993) Diana J. Rennison PhD Marie SkÅ<sup>3</sup>odowska-Curie Fellow Institute of Ecology and Evolution University of Bern Baltzerstrasse 6 3012 Bern Switzerland website: [rennisonlab.com](http://rennisonlab.com)  
[diana.rennison@iee.unibe.ch](mailto:diana.rennison@iee.unibe.ch)

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## UCincinnati EvolutionMedicine

Assistant Professor, Epigenetics and Health

Date: Oct 15, 2019

Location: Cincinnati, OH, US

Company: University of Cincinnati

The Departments of Anthropology and Biological Sciences at the University of Cincinnati invite applications for a joint tenure-track position with a focus in epigenetics and health beginning in the Fall 2020. The tenure home of this position will be in the Department of Anthropology.

Both departments have faculty with strong research records in evolutionary change and seek to enhance their research programs by including expertise into the impact of environment and stress on vulnerable populations. The applicant will be expected to teach and develop courses relating to evolution and medicine, adaptation, epigenetics, and the environment. In addition to teaching duties, this hire is expected to maintain an active research program, advise and mentor students, and contribute to departmental and university service initiatives. The candidate will have lab and/or field-based research program(s) that provide research opportunities for undergraduate and graduate students in both the Anthropology and Biology departments. The candidate should also be able to teach Introduction to Biological Anthropology.



**Qualifications:**

Applicants should have PhD in hand at the time of application and at least 12 months post-doctoral experience.

**Application Process:**

Interested and qualified candidates must complete our online application at <https://jobs.uc.edu> (Search Requisition #40141). Applications must include a cover letter, curriculum vitae, a research statement, a teaching statement, and the names of three references. Please include this information using the additional documents feature in our hiring system. The Departments of Anthropology and Biology, the College of Arts and Sciences, and the University of Cincinnati are committed to fostering an environment supportive of all ethnicities, races, nationalities and gender identities. Applicants should also please include a separate one-page statement reflecting on their vision and/or experience in teaching students of diverse backgrounds.

We will begin reviewing applications on November 15, 2019 and continue until the position is filled. Applicants selected as finalists for the position will be asked to submit three letters of reference. The University of Cincinnati is committed to supporting a diverse and inclusive community of faculty and students. It has an active Black Faculty Association, Latino Faculty Association, and an LGBTQ Faculty and Staff Association. The University of Cincinnati has a newly established Faculty Enrichment Center help further the success of its faculty members.

The University of Cincinnati is a public institution located in a vibrant city ranked as one of the top 50 places to live by US News and World Report. It has an active arts scene, national sports teams, museums and other opportunities for a satisfying work/life balance. The University of Cincinnati is an equal opportunity/affirmative action employer. We encourage women, minorities, persons with disabilities, veterans, and others who can contribute to a diverse academic community to apply.

**FOR ALL FACULTY HIRES****OFFICIAL ACADEMIC TRANSCRIPTS WILL BE REQUIRED AT THE TIME OF HIRE**

The University of Cincinnati, as a multi-national and culturally diverse university, is committed to providing an inclusive, equitable and diverse place of learning and employment. As part of a complete job application you will be asked to include a Contribution to Diversity and Inclusion statement.

As a UC employee, and an employee of an Ohio public institution, if hired you will not contribute to the fed-

eral Social Security system, other than contributions to Medicare. Instead, UC employees have the option to contribute to a state retirement plan (OPERS, STRS) or an alternative retirement plan (ARP).

The University of Cincinnati is an Affirmative Action / Equal Opportunity Employer / M / F / Veteran / Disabled.

“Gross, Josh (grossja)” <grossja@ucmail.uc.edu>

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## UColorado Denver Plant Evolution

**Plant Evolutionary Biology Faculty Position**

The Department of Integrative Biology at the University of Colorado Denver seeks to hire a tenure-track faculty member at the rank of Assistant Professor in Plant Evolutionary Biology. The department seeks an individual who uses cutting-edge approaches and analytic tools to study evolutionary processes. Preference will be given to candidates who engage undergraduate and graduate students in basic research that crosses disciplines and complements existing research areas in the department. Any area of specialization within plant evolutionary biology will be considered. We encourage applications from individuals who work at or across any scale (from local to global; from micro to macro) and on any taxa (from fungi through algae to flowering plants). We are actively seeking faculty whose research, teaching, and service demonstrate their commitment to inclusion and equity of under-represented individuals in STEM. The successful candidate will establish a productive, externally funded research program, and excel in inclusive teaching and mentoring a diverse student population.

Applicants should provide evidence of past efforts and future plans to promote diversity, equity, and inclusion in the cover letter, research, and/or teaching statements. Review of applications will begin on November 30, 2019, and will continue until the position is filled. Please refer to the full job announcement for additional details and instructions: <https://cu.taleo.net/careersection/2/-jobdetail.ftl?job=17519&lang=en> CU Denver is dedicated to ensuring a safe and secure environment for our faculty, staff, students and visitors. To achieve this goal, we conduct background investigations for all prospective employees. The University of Colorado is committed to diversity and equality in education and employment.

“Ragland, Gregory” <GREGORY.RAGLAND@UCDENVER.EDU>



West 13 Phone: (303)871-3658 Web: <http://tinghitellalab.weebly.com>  
Robin Tinghitella  
<Robin.Tinghitella@du.edu>

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## UDenver EvolutionaryBiol

Assistant Professor 'V Evolutionary Biology The Department of Biological Sciences invites applicants for a tenure track faculty position at the Assistant Professor level to begin September 1, 2020. We are seeking candidates whose research addresses fundamental questions in evolutionary biology. Their research may fit into one of these major themes: the origin of novel traits, the generation and/or maintenance of diversity, or the evolution of traits associated with interspecific interactions. Preference will be given to candidates with an integrative research program that employs diverse experimental approaches across multiple levels of biological organization. The successful candidate will have a Ph.D. and post-doctoral experience in an appropriate field, will develop an extramurally funded research program, will supervise Ph.D. and M.S. students and undergraduate research projects and will teach undergraduate and graduate courses in area of expertise. We are especially interested in applicants who have demonstrated commitment to or experience with working with diverse populations and who can contribute to the diversity and excellence of the academic community through research, teaching, and service. Information on Departmental programs can be found at <http://www.du.edu/nsm/departments/biologicalsciences/> All candidates must submit their application through <http://www.du.edu/jobs>. Internal Job#: 492713 The online application should include: a cover letter, curriculum vitae, separate statements of research interests, teaching, and diversity, and two recent publications. Provide contact information for 3 professional references. The review of applications will begin November 15, 2019 and continue until the position is filled. Contact Dr. Robin Tinghitella [robin.tinghitella@du.edu](mailto:robin.tinghitella@du.edu) if you have questions regarding the search. The University of Denver is committed to enhancing the diversity of its faculty and staff and encourages applications from women, minorities, members of the LGBT community, people with disabilities and veterans. The University is an equal opportunity/affirmative action employer.

Robin M. Tinghitella

Assistant Professor Department of Biological Sciences  
University of Denver 2050 E Iliff Avenue Denver, CO  
80208

Office: Boettcher West 243 Lab: Boettcher

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## UHouston EcolGenomics

(Note that Ecological Genomics is defined very broadly and we will consider applicants with a variety of related interests. Also, while the ad specifies Associate or Full, we are able consider advanced assistant professors who could be hired as Associate based on accomplishments.)

Link to apply: [https://uhs.taleo.net/careersection/ex2\\_uhf/jobdetail.ftl?job=FAC001168](https://uhs.taleo.net/careersection/ex2_uhf/jobdetail.ftl?job=FAC001168) Faculty Position in Ecology at the University of Houston

The Department of Biology and Biochemistry at the University of Houston invites applications for a tenure-track faculty position at the rank of Associate or Full Professor. Applicants with research interests and a record of accomplishment in ecological genomics, global change, or evolutionary ecology are encouraged to apply. Successful applicants will have research interests that complement existing departmental strengths in community ecology, evolutionary genetics and genomics, evolutionary ecology, and evolutionary and ecological theory. The position requires a Ph.D. and significant relevant academic experience. Faculty members are expected to establish and maintain nationally competitive externally funded research programs and to participate in graduate and undergraduate teaching. The Department of Biology has state-of-the-art laboratory space, well-equipped core facilities, high-performance computing resources, and a coastal research and education center. Broad opportunities exist for research collaborations within the University of Houston as well as at nearby institutions. Interested applicants should submit a curriculum vitae with names and contact information for three references, research plan, one-page statement of teaching interests, and cover letter to: (<http://www.uh.edu/human-resources/careers/>) (register at this site and search faculty openings). The University of Houston, with one of the most diverse student bodies in the nation, seeks to recruit and retain a diverse community of scholars. In the cover letter, applicants should state how their experiences and/or planned future activities will contribute to the advancement of diversity and inclusion in the context of teaching, research, or community engagement. Alternatively, this information can be provided in a separate statement. Review of applications will begin by November 1, 2018 and continue until the position is

filled. The University of Houston is an Affirmative Action/Equal Opportunity Employer. Women, minorities, veterans, and persons with disabilities are encouraged to apply. The University of Houston is responsive to the needs of dual-career couples.

rzufall@Central.UH.EDU

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### UIIdaho ResSpecialist InsectEvolution

The Arthropod Molecular Systematics laboratory (PIs Marek Borowiec & Chris Hamilton) at the University of Idaho is seeking a full-time Research Specialist to assist in research on a broad range of topics, from taxonomy and phylogenetics to bioinformatics. The laboratory is located in Moscow, Idaho. The town offers a small and lively community with a range of outdoor activities nearby in the lovely Palouse region of Idaho and Washington. This position is contingent upon work and/or funding. However, there are three years of initial funding available for the position.

The candidate will be tasked with handling and curating insect and other arthropod specimens, live, mounted or otherwise preserved, participating in field work, performing data management, photographing specimens, designing experiments, performing wet laboratory work including DNA extraction, amplification, genomic library preparation, and data analysis. The candidate will assist in ordering and organizing lab equipment and supplies. They will also be responsible for facilitating training students and postdocs in laboratory techniques and the use of specialized equipment. The candidate will also assist in outreach and in communicating the lab's research. The possibility exists for the candidate to be a coauthor on resulting publications. Importantly, the candidate will help foster a safe, productive, inclusive, and collegial lab environment.

For more details and how to apply see here: <https://uidaho.peopleadmin.com/postings/27727>

“Borowiec, Marek (mborowiec@uidaho.edu)”  
<mborowiec@uidaho.edu>

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### UMississippi GlobalChangeEcophysiolgist

The Department of Biology at the University of Mississippi is searching for a tenure-track Assistant Professor working on ecophysiological responses to global change. We seek candidates who use integrative approaches to understand the physiological mechanisms that underpin present-day or projected responses of invertebrates and/or vertebrates to environmental change in freshwater, marine, or terrestrial systems. Areas of research interest include but are not limited to climate change, land use change, urbanization, biological invasions, species interactions, or mechanisms of ecosystem resilience. Research should connect animal physiology to global change issues, and may integrate multiple biological, spatial and/or temporal scales. The successful candidate will be expected to develop an innovative, externally-funded research program, train graduate students, teach courses in their area of expertise, and contribute to teaching a core Introductory Physiology course. This position will complement and extend existing departmental strengths in symbiosis and species interactions, biodiversity and conservation biology, cell and molecular biology, or neuroscience and behavior (<http://biology.olemiss.edu>).

We have a vibrant, broad-based biology department that consists of 22 tenure-track and 13 instructional faculty members, and educates over 900 undergraduate biology majors and 38 graduate students (Ph.D. and M.S.). The University of Mississippi is a Carnegie-Designated R1 Highest Research University located near Memphis in Oxford, Mississippi, a beautiful college town known for its outstanding educational and cultural opportunities. The University of Mississippi has been repeatedly recognized by the Chronicle of Higher Education as a “Great College to Work For.” The Department of Biology recognizes the importance of building a diverse faculty and welcomes applicants from groups underrepresented in science.

To apply, please visit our Online Employment Service at <https://careers.olemiss.edu/>. Applications should include: (1) cover letter outlining interest in and suitability for the position, (2) a curriculum vitae, (3) a statement of research interests and future plans (3 pages or less), (4) a statement of teaching interests, practices and philosophy (1 page), (5) a diversity statement ad-

dressings approaches to promoting inclusivity in research and training (1 page), (6) names and contact information for at least three references, and (7) reprints of up to three recent publications or submitted papers. Items 1-6 should be prepared as a single pdf and item 7 as a second pdf file.

The University of Mississippi complies with all applicable laws regarding equal opportunity and affirmative action and does not unlawfully discriminate against any employee or applicant for employment on the basis of race, color, gender, sex, sexual orientation, gender identity or expression, religion, national origin, age, disability, veteran status or genetic information.

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>

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## UNebraska EvolutionBehavior

The School of Biological Sciences at the University of Nebraska-Lincoln invites applications for a tenure-track, assistant professor position in Behavioral Neurobiology. This is an academic-year position for a scientist who studies the neurobiological basis of behavior.

The successful candidate will demonstrate a strong record of success in using advanced molecular, cellular, biochemical, physiological, genetic or genomic approaches to study the neurobiological mechanisms that underlie animal behavior. Preferred candidates will use organismal and experimental approaches in model or non-model animals and will complement existing research expertise in the School of Biological Sciences (<https://biosci.unl.edu/research-areas>) by adding neurobiological approaches. Candidates should have demonstrated success in conducting research that integrates across multiple levels of biological organization. The successful candidate will be expected to establish a nationally recognized and extramurally funded research program and to contribute to the undergraduate and graduate teaching missions of the School of Biological Sciences by developing course offerings in neurobiology and related fields. A PhD in biology or related discipline and research experience in neurobiology is required. A minimum of two years of postdoctoral research and classroom teaching experience is preferred.

The successful candidate will receive a competitive start-up package and will have the opportunity to work with an accomplished group of behavioral biologists in the School of Biological Sciences, and other neurobiologists in the Department of Psychology ([psychology.unl.edu](http://psychology.unl.edu)); the Center for Brain, Biology and Behavior (<http://cb3.unl.edu/research/>); and other units across the UNL campus. The School of Biological Sciences works to provide a collegial, friendly, and welcoming place to work. We are committed to enhancing the diversity of the school, the campus community and the curriculum. Candidates who can contribute to this goal are encouraged to apply. The city of Lincoln, Nebraska boasts an outstanding quality of life that includes a vibrant downtown with a lively music and art scene and a collection of over 120 parks and 130 miles of bike trails, plus a low cost of living. To learn more about the University of Nebraska and the School of Biological Sciences, visit [biosci.unl.edu](http://biosci.unl.edu).

Applicants should go to <http://employment.unl.edu>, requisition F.190180, complete the Faculty Academic/Administrative Information form, and attach a cover letter, a Curriculum Vitae, a research statement that summarizes experience and includes future plans, a statement of teaching strategies/experience/interests, a statement of strengths and experiences in the area of diversity and inclusion, and the names and contact information for three references. Combine the three statements and attach as \$B\!H(B\!O\!t\!h\!e\!r\!D\!o\!c\!u\!m\!e\!n\!t\!.\$B\!I\!I(B

Review of applications will begin on November 8, 2019 and continue until the position is filled or the search is closed.

Questions regarding the application process may be sent to [biologysearch@unl.edu](mailto:biologysearch@unl.edu).

As an EO/AA employer, qualified applicants are considered for employment without regard to race, color, ethnicity, national origin, sex, pregnancy, sexual orientation, gender identity, religion, disability, age, genetic information, veteran status, marital status, and/or political affiliation. See: <http://www.unl.edu/equity/notice-nondiscrimination> < <http://www.unl.edu/equity/notice-nondiscrimination> >.

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

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## UNorthCarolina Wilmington 5 EvolutionaryBiology

The Department of Biology and Marine Biology at the University of North Carolina Wilmington invites applications for 4 Tenure-Track Assistant Professors (in the areas of Integrative Biology, Microbiology, Ecotoxicology and Biological Oceanography) and 1 Full-Time Lecturer in the area of Genetics. The application deadline for priority consideration is November 8th, 2019 for all 5 positions. Details are available at: [https://jobs.uncw.edu/-postings/search?utf8=%E2%9C%93&query=-Biology&query\\_v0\\_posted\\_at\\_date=&1594%5B%5D=-2&742=&commit=Search](https://jobs.uncw.edu/-postings/search?utf8=%E2%9C%93&query=-Biology&query_v0_posted_at_date=&1594%5B%5D=-2&742=&commit=Search) The department has an excellent record of faculty development and mentorship, and is committed to assisting new faculty to succeed. The department is especially interested in qualified candidates who can contribute, through their research, teaching, and/or service, to the diversity and excellence of the academic community. Graduate curricula in the department include M.S. programs in Biology and Marine Biology, as well as a Ph.D. program in Marine Biology. Preference will be given to candidates able to complement existing disciplinary and interdisciplinary strengths and leverage departmental facilities. Excellent support for research is provided in departmental facilities on campus (<http://www.uncw.edu/bio/>) and at the CREST Research Park (<http://uncw.edu/CREST/>), including the Center for Marine Science, Shellfish Research Hatchery, and Marine Biotechnology Center.

Best, Brian

Brian S. Arbogast, PhD Professor of Biology Department of Biology and Marine Biology, and Assistant Director, Wildsumaco Biological Station, Ecuador University of North Carolina Wilmington 601 S. College Rd. Wilmington, NC 28403

Phone: (910) 962 2644 E-mail: [arbogastb@uncw.edu](mailto:arbogastb@uncw.edu)  
Lab Webpage: <http://people.uncw.edu/arbogastb/>  
Wildsumaco Biological Station <https://www.facebook.com/wildsumaco.bio.station> "Arbogast, Brian S." <[Arbogastb@uncw.edu](mailto:Arbogastb@uncw.edu)>

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## UNorthTexas 3 SystemsBiol InvertBiol ConservBiol

The Department of Biological Sciences at University of North Texas invites applications for three faculty positions in Systems Biology, Invertebrate Biology, and Conservation/Wildlife Biology.

ASSISTANT PROFESSOR (tenure-track) in SYSTEMS BIOLOGY as it pertains to Environmental Change. We seek candidates whose research addresses any area of systems biology as related to natural or anthropogenic disturbances.

ASSISTANT PROFESSOR (tenure-track) in INVERTEBRATE BIOLOGY. We seek candidates with a research focus in invertebrate biology, which can include but is not limited to research in development, physiology, genetics, toxicology, or environmental interactions, using invertebrate systems.

ASSISTANT or ASSOCIATE PROFESSOR (tenure-track or tenured) in CONSERVATION / WILDLIFE BIOLOGY. We seek candidates whose research addresses contemporary issues in conservation or wildlife biology. We are particularly interested in candidates that conduct research focused on upland game bird biology and/or rangeland habitat conservation with a desire to develop an active field-based research and outreach program in partnership with local landowners and ranchers. Exceptional candidates working in related areas of wildlife biology are also encouraged to apply. Rank and tenure status will be commensurate with experience.

Qualifications: Each successful candidate will have 1) earned a doctoral degree in Biological Sciences or related field, 2) demonstrates the ability and plans to obtain extramural funding, 3) a growing record of scholarship and publication in higher tier journals appropriate to the applicants' field of study, and 4) demonstrates the potential for excellence in undergraduate and graduate teaching. Preference will be given to applicants having postdoctoral or equivalent experience.

Responsibilities: The successful candidates will be expected to obtain funding to support a vibrant research program in the candidates' discipline and engage in undergraduate and graduate education by teaching courses in their area of expertise. Each candidate is also expected to participate in relevant regional, national, and international research communities within



their discipline.

Salary: Salary and start-up package are competitive.

Eligibility: Employment is contingent upon proof of eligibility to work in the United States and outcome of record checks and verifications including criminal history, education records, employment, and references.

Starting Date: August 2020

Deadline: Completed applications will be reviewed starting December 2, 2019, and will continue until each respective search is closed.

Apply online: <http://facultyjobs.unt.edu> (search by System Identification Number: Systems Biology AC 6002460, Invertebrate Biology AC 6002466, and Conservation/Wildlife Biology AC 6002463)

Application Procedures: Applicants must apply online at <http://facultyjobs.unt.edu> and attach the following items: 1) cover letter, 2) Curriculum Vitae, 3) research statement (AA 3 pages), 4) statement of teaching philosophy (AA 2 pages), 5) at least one and up to three relevant publication(s) that highlight the applicant's contribution in the field, and 6) contact information for three individuals willing to serve as references that are familiar with the applicant's academic and research qualifications.

General Information: UNT is a public research university with a Research 1 (R1) Carnegie classification enrolling over 39,000 students, offering a total of 101 bachelor's degrees, 82 master's degrees, and 38 doctoral degrees. Biological Sciences is a comprehensive department with over 40 faculty organized among three divisions (Ecology / Environmental Science, Physiology, and Biochemistry / Molecular Biology). We offer degrees in each area of concentration through the Ph.D. and have approximately 2,900 undergraduate majors and over 200 graduate students. Additional information concerning UNT and the Department of Biological Sciences can be found at <http://www.unt.edu> and <http://biology.unt.edu>.

The main UNT campus is located in the city of Denton, a vibrant and growing community of approximately 120,000 residents located 40 miles north of downtown Dallas and Fort Worth and 27 miles north of DFW International Airport. For more information about Denton, please visit <https://www.cityofdenton.com> and <https://www.discoverdenton.com>.

The University of North Texas System and its component institutions are committed to equal opportunity and comply with all applicable federal and state laws regarding nondiscrimination and affirmative action. The University of North Texas System and its component

institutions do not discriminate on the basis of race, color, sex, sexual orientation, gender

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## UNotreDame EvolutionHumanDisease

Open Rank Tenure-Track Faculty Positions in Vector Biology at Notre Dame

The Department of Biological Sciences seeks to recruit tenure-track faculty at an academic rank of Assistant, Associate or Full Professor who study the biology of arthropod vectors of human disease or vector-pathogen-host interactions. Individuals with expertise in ecology, behavior, physiology, or evolutionary, population and functional genomics, particularly those with cross-disciplinary and field-based research programs, are encouraged to apply.

The successful candidates will be highly productive with an established, or strong potential to establish, a vigorous externally funded research program that complements and synergizes with others in the department and across the University studying pathogen genomics, pathogenesis, disease ecology, epidemiology, and climate change.

New faculty will contribute to the undergraduate and graduate teaching mission of the Department of Biological Sciences, and join an integrative and collaborative research community with expertise that spans the breadth of the life sciences. Several faculty have active research partnerships with international field sites and associated research partners, including in Africa, Latin America, Asia, and the South Pacific. Department faculty have access to state-of-the-art genomics, bioinformatics, computing, mass spectrometry, proteomics, and imaging cores, specialized BSL-3 containment laboratories, insect rearing and research facilities, and an AAALAC-accredited animal facility. Information on department and other college faculty and facilities can be found at <http://biology.nd.edu> and <http://science.nd.edu>. Opportunities also exist for collaboration with faculty at the adjoining Indiana University School of Medicine-South Bend.



The University of Notre Dame seeks to attract, develop, and retain the highest quality faculty. The University is an Equal Opportunity Employer committed to building a culturally diverse and inclusive community, and supports the needs of dual career couples. We strongly encourage applications from female and minority candidates.

Review of applications will commence on November 27, 2019 and will continue until suitable candidates are identified. Applicants should submit in PDF format, a cover letter, curriculum vitae, names and contact information of three professional references, 2-page statement of research interests and future research plans, and 2-page statement of teaching philosophy, approach and experiences, to [apply.interfolio.com/68836](http://apply.interfolio.com/68836). Interested individuals are welcome to contact the search chair, Professor Nora Besansk, at [nbesansk@nd.edu](mailto:nbesansk@nd.edu).

The University of Notre Dame, an international Catholic research university, is an equal opportunity employer.

Alex Perkins <[taperkins@nd.edu](mailto:taperkins@nd.edu)>

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## UScranton EvolutionaryBiol

We are currently searching for four faculty spread across three searches (physiology, microbiology, and neuroscience/cell biology). Integrative biologists who work on evolution, physiology, microbiology, or environmental science at multiple levels are encouraged to apply. The paragraph unique to each search is pasted below, followed by the larger segment of the job ad that is shared by all three searches.

### 1) Physiology -

ASSISTANT PROFESSOR OF BIOLOGY (PHYSIOLOGY)

Department of Biology

The University of Scranton

The Biology Department of the University of Scranton is seeking applications for up to two tenure-track positions at the level of Assistant Professor to begin August 2020. The area of specialization is open; however, we are particularly interested in applicants with expertise in subspecialties of physiology, in biomechanics, neurophysiology, cellular physiology, or environmental physiology with a focus in freshwater systems. Applicants must be able to contribute to our courses in anatomy and physiology. Applicants will also contribute to the Biology

Department's core courses in the Biology; Biochemistry, Cellular, and Molecular Biology (BCMB); Physiology; Environmental Science; and/or Neuroscience programs. Faculty will be encouraged to develop upper level courses in their specialties.

For questions regarding this position, please contact Dr. Christopher Howey, Chair of the Search Committee, via email at [christopher.howey@scranton.edu](mailto:christopher.howey@scranton.edu). Review of applications will begin October 14, 2019, and will continue until the position is filled.

### 2) Microbiology -

ASSISTANT PROFESSOR OF BIOLOGY (MICROBIOLOGY)

Department of Biology

The University of Scranton

The Biology Department of The University of Scranton is seeking applications for up to two tenure-track positions focusing on Microbiology (with special interest in virology, bioinformatics, and/or freshwater ecology) at the level of Assistant Professor to begin August 2020. Applicants must be able to contribute to our courses in microbiology. Applicants will also contribute to the Biology Department's core courses in the Biology; Biochemistry, Cellular, and Molecular Biology (BCMB); Physiology; Environmental Science; and/or Neuroscience programs. Faculty will be encouraged to develop upper level courses in their specialties.

For questions regarding this position, please contact Dr. Kathleen Dwyer, Chair of the Search Committee, via email at [kathleen.dwyer@scranton.edu](mailto:kathleen.dwyer@scranton.edu). Review of applications will begin October 14, 2019, and will continue until the position is filled.

### 3) Developmental Neuroscience/ Cell Biology -

ASSISTANT PROFESSOR OF BIOLOGY (DEVELOPMENTAL NEUROSCIENCE / CELL BIOLOGY)

Department of Biology

The University of Scranton

The Biology Department of The University of Scranton is seeking applications for up to two tenure-track positions at the level of Assistant Professor to begin August 2020. The areas of specialization include neuroscience, particularly developmental neuroscience, and /or cellular biology. Applicants will teach Developmental Biology, Developmental Neuroscience, and/or Cellular Biology (depending on their background). Applicants will also contribute to the Biology Department's core courses in the Biology; Biochemistry, Cellular, and Molecular Biology (BCMB); Physiology; Environmental Science; and/or Neuroscience programs. Faculty will be encour-

aged to develop upper level courses in their specialties.

For questions regarding this position, please contact Dr. Marc A. Seid, Chair of the Search Committee, via email at [marc.seid@scranton.edu](mailto:marc.seid@scranton.edu). Review of applications will begin October 14, 2019, and will continue until the position is filled.

#### SHARED TEXT FOR ALL THREE SEARCHES -

A Ph.D. is required by start date; postdoctoral experience is preferred. Excellence in teaching and the capability to develop an active research program that involves mentoring undergraduates and which is complementary to the expertise of our existing faculty is expected.

Our department is a growing and dynamic place to work. We are currently searching to fill an additional 2-3 tenure-track positions that will contribute in other ways to the department's programs [[link to job ads here](#)]. Integrative biologists or those who work on evolution, physiology, microbiology, neurobiology, or environmental science at multiple levels are encouraged to apply for the position closest to their area of expertise, but may also apply to more than one position.

The Biology Department is housed in a state-of-the-art unified science center, <http://www.scranton.edu/academics/sciencecenter>. Visit <http://www.scranton.edu/academics/cas/biology/> for more information about the Biology Department, its programs, and its faculty.

The University embraces diversity, and promotes an inclusive campus



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## USGS Flagstaff AZ Genetics

The U.S. Geological Survey's Southwest Biological Science Center in Flagstaff, AZ is seeking a recent graduate (i.e., who earned a degree within the last 12 months) to assist with population genetic, landscape genetic, and climate related research projects. The projects involve western U.S. plant species that are either rare/threatened/endangered or commonly used for restoration. Research questions revolve around recent

and historical demographic trends, population structure/ phylogeography, inferences of putative adaptation to regional environmental gradients, taxonomy, climatic factors influencing restoration success, etc. Many of the data are in hand and the candidate will immediately contribute to all stages of project development/execution. The candidate will predominantly work in the laboratory and office, but some field work is anticipated. This position is open to U.S. citizens and is funded for 12 months extensions are dependent upon future funding. The pay rate will be \$26.51/hour (taxes are not taken out and will have to be managed by the candidate). Due to the nature of the position, benefits are not available. The candidate must pass a federal background check, a pre-employment physical, and have a clean driving record.

Expectations: - Authorship/co-authorship on multiple peer-reviewed publications - Work well in a collaborative setting - Consistent and excellent attention to detail - Work in Flagstaff, AZ and start approximately 4-6 weeks after selection

Minimum qualifications: - Master's degree - Experience constructing next-generation sequencing libraries - Programming and data analysis skills in R - Ability to manage/work with big data (genetic and climate) - Experience with genetics pipelines/analyses applicable to SNPs, for example: Stacks, ipyrad, structure (or similar), PCA and sPCA, fastsimcoal2, LFMM, Procrustes, etc. - Excellent writing skills - Ability/willingness to conduct field work under harsh conditions in remote areas

Desired qualifications: - Demonstrated ability to publish in peer-reviewed journals - Experience constructing species distribution models using current methodologies - Knowledge of southwestern U.S. plant communities and natural history - Experience with other programming/scripting languages (Python, Perl, C++, shell, etc.) - Experience working on the terminal to run programs, including on remote high-performance computing clusters (managed by slurm)

If interested, please submit a cover letter and CV (including contact information for three references) to Rob Massatti ([rmassatti@usgs.gov](mailto:rmassatti@usgs.gov)). This position is open until filled.

"[rmassatti@usgs.gov](mailto:rmassatti@usgs.gov)" <[rmassatti@usgs.gov](mailto:rmassatti@usgs.gov)>

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## UtahStateU EvolEcolGeneticsPhys

The Department of Biology at Utah State University (USU) invites applications for a dynamic and collaborative teacher and department member for a full-time Lecturer position beginning as early as 1 January 2020. This is a 9-month non-tenure-track faculty position at the Logan campus. The role assignment for this position is: 90% teaching and 10% service. Principal responsibilities include the teaching, design, and lead instructor responsibilities of the BIOL 1010 'V Biology and the Citizen (Breadth Life Science - BLS) general education course at Utah State University.

In each fall and spring semesters, responsibilities will include teaching two face-to-face BIOL 1010 sections (enrollment of 200-300 each section) at the Logan campus, and coordination and assessment of BIOL 1010 statewide through broadcast, concurrent enrollment, and China/Korea courses. There will be opportunities to teach a lower- or mid-division BLS or Depth Science Course (DSC) (e.g., genetics, ecology, evolution, organismal biology) related to incumbent's expertise. Core duties include continual development of the BIOL 1010 curriculum aligned with Biology Department learning objectives; preparing in class learning activities; developing student outcomes and administering assessments; coordinating Biology standards across all USU BIOL 1010 sections (statewide, and can include out-of-state sites); contributing to university and department service; demonstrating commitment to teaching and mentoring students from diverse populations; and supervising teaching assistants, graders, and undergraduate teaching fellows. The teaching load will be 12 credits per fall and spring semester.

The Department of Biology offers programs leading to a Bachelor of Science or Bachelor of Arts degree. Majors complete a core of courses that provide an understanding of biological principles. Upper-division courses provide integration, in-depth study, and an opportunity for specialization within the different degree emphases. Additional coursework in chemistry, physics, statistics, and mathematics provides knowledge and analytical skills in these important related fields. This position will play a lead role in providing high quality general education in the breadth life sciences to students across Utah State University. Visit [www.biology.usu.edu](http://www.biology.usu.edu) for more information.

A master's degree in biology or closely related field is required; ability to serve as a mentor, advisor and role model to students and graduate teaching assistants; ability to work productively and cooperatively with colleagues; and excellent oral, written, and problem solving skills. Evidence of proficiency in teaching is required, including a background in pedagogy.

Preferred experience includes additional academic preparation beyond the master's level; successful postsecondary teaching experience and an ability to communicate effectively both in oral and written discourse; practiced experience with different learning technologies; academic experience in program and curriculum building, such as creating new courses, student outcomes, and course outlines; experience with courses for both biology majors and nonmajors is strongly preferred. Evidence of strong interpersonal communication and management skills; and a demonstrated ability to work with a diverse population.

Applicants must apply electronically, using the online system <https://careers-usu.icims.com/>. Applicants are required to submit a letter of interest, curriculum vitae, teaching portfolio (including statement of teaching philosophy and teaching methodology and examples of teaching materials), transcripts, and the names and contact information (including email addresses) for three references. References will be contacted upon submission of application and asked to upload a letter of reference to a box link. Applications will only be accepted through the online system. For further information or inquiries, please contact Nancy Kay Pierson, Search Manager, [NancyKay.Pierson@usu.edu](mailto:NancyKay.Pierson@usu.edu). The Department of Biology has nearly 600 undergraduate students, over 50 graduate students, more than 45 faculty at 6 campuses across the State, 11 administrative staff members, and well over 100 hourly employees. Biology instructors serve over 4,380 students each year through our general education courses. The Department of Biology maintains a large research enterprise. Biology and USU fosters innovation and support of faculty in their efforts to enhance student learning and engagement in offering support of continued professional association membership, conference/academy attendance, and an Empowering Teaching Excellence program offered by the Provost's Office.

Utah State University (USU) was founded in 1888 and is honored to be Utah's land-grant and space-grant university. USU is a Carnegie



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[mcmaster.ca/~brian/evoldir.html](http://mcmaster.ca/~brian/evoldir.html)

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## UVirginia BiologyDataScience

Tenure-Track Assistant Professor of Biology and Data Science University of Virginia

The University of Virginia invites applications for a tenure-track Assistant Professor position with joint appointment in the Department of Biology and the School of Data Science. We seek applicants whose research programs address fundamental questions at the interface of Biology and Data Science. Of particular interest are researchers aiming to develop innovative computational tools to improve biological understanding in areas potentially including but not limited to: genomics and phenotype prediction; cell state and signaling; biological network architecture and information processing; multiscale modelling; cellular, organismal or population dynamics; biological image acquisition and analysis. Applicants are sought whose work will synergize with existing labs in the Department of Biology and elsewhere, with research emphases ranging from molecules to cells and tissues, and organisms to populations and ecosystems, as well as programs in the new School for Data Science in the areas of data acquisition, engineering, analysis, visualization or dissemination. Applicants employing computational methods with or without experimental approaches will be considered.

A successful candidate is expected to establish a vigorous, independent, and externally funded research program as well as provide instruction and scientific training at the undergraduate and graduate levels. Applicants with a respect for diversity and a passion for making a positive impact on the world in a collaborative, open environment are strongly encouraged to apply. The position will begin on August 25, 2020.

Located within the College of Arts and Sciences, the Department of Biology provides an interdisciplinary and collaborative environment for basic research and teaching that spans multiple levels of biological organization. The newly formed School of Data Science, founded with the largest gift in the university's history, is dedicated to open interdisciplinary research of societal benefit with data science at the core. With the schools of Medicine, Engineering & Applied Sciences, UVA offers a diverse, collegial, interdisciplinary, and collaborative environment.

Qualifications: Applicants must have a Ph.D. in life sciences, computer science, statistics or a related field by the start of their appointment. A successful applicant will also have research accomplishments and plans of outstanding quality and significance at the interface of biology and data science as well as a commitment to excellence in teaching and mentoring. A proven commitment to participate in and further develop a diverse, collegial, interdisciplinary, and collaborative environment needs to be demonstrated.

Application Process: Please apply online at [https://uva.wd1.myworkdayjobs.com/en-US/UVAJobs/job/-Charlottesville-VA/Assistant-Professor-of-Biology-Data-Science\\_R0010887](https://uva.wd1.myworkdayjobs.com/en-US/UVAJobs/job/-Charlottesville-VA/Assistant-Professor-of-Biology-Data-Science_R0010887) and attach a cover letter that succinctly highlights your most significant research accomplishments, experiences, and qualifications; a curriculum vitae; a research statement that describes your vision for your research program at the university ('£ 3 pages); a statement of teaching goals; a diversity statement that describes your past experience working on issues of diversity, equity and inclusion and/or working with diverse populations; and the contact information of three references.

Application Deadline: Review of applications will begin November 3, 2019; candidates who apply by then will be given priority consideration, but the position will remain open until filled.

The University will perform background checks on all new hires prior to employment.

For questions regarding the position, please contact Search Chair Martin Wu, Associate Professor of Biology, at [Biology\\_SDS\\_Search@virginia.edu](mailto:Biology_SDS_Search@virginia.edu).

For questions about the application process, please contact Rich Haverstrom, Faculty Search Advisor, at [rkh6j@virginia.edu](mailto:rkh6j@virginia.edu).

UVA assists faculty spouses and partners seeking employment in the Charlottesville area. To learn more please visit <https://dualcareer.virginia.edu/> For more information about UVA and the Charlottesville community please see <http://www.virginia.edu/life/charlottesville> and <https://embarkcva.com/>.

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



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receive consideration for employment without regard to race, color, creed, religion, national origin, sex, sexual orientation, marital status, pregnancy, genetic information, gender identity or expression, age, disability, or protected veteran status.

Kelley Harris <harriske@uw.edu>

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## UWashington Genomics

Assistant Professor of Genome Sciences, University of Washington

The Department of Genome Sciences at the University of Washington is continuing to recruit outstanding faculty under its chair, Dr. Stanley Fields. Research in the department encompasses genetic, genomic and proteomic analysis of humans and model organisms. The department also has a significant interest in population and evolutionary genetics, complex trait analysis, technology development, and computational biology across all levels.

The department invites applications for a full-time faculty position at the rank of ASSISTANT PROFESSOR, tenure-track. All UW faculty engage in teaching, research, and service. This is a 12 month, multi-year appointment with an anticipated start date of September 2020.

To ensure full consideration, complete applications must be received by November 1, 2019.

### Qualifications

Applicants must hold a Ph.D. and/or M.D. degree, or foreign equivalent.

In order to be eligible for University sponsorship for an H-1B visa, graduates of foreign (non-U.S.) medical schools must show successful completion of all three steps of the U.S. Medical Licensing Exam (USMLE), or foreign equivalent as determined by the Secretary of Health and Human Services.

### Instructions

Candidates should submit their curriculum vitae, statements of research and teaching interests (inclusive of mentoring, outreach, diversity efforts and teaching), and four signed letters of reference to: <https://apply.interfolio.com/65808> For additional information that may be helpful in preparing an application, see the department's web site at <http://www.gs.washington.edu>. Equal Employment Opportunity Statement

University of Washington is an affirmative action and equal opportunity employer. All qualified applicants will

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## UWisconsin Madison Evolutionary Biology

Assistant or Associate Professor of Evolutionary Biology, University of Wisconsin-Madison

The Department of Integrative Biology at the University of Wisconsin-Madison is accepting applications for an Assistant Professor (tenure-track) position, or Associate level for exceptional candidates, beginning August 2020. We seek a candidate to develop an internationally-recognized research program in Evolutionary Biology. We are particularly interested in candidates who can address fundamental questions in evolutionary biology using data-rich genomics, computational, statistical, and/or mathematical approaches. Potential areas of expertise might include, but are not limited to, population genetics, population genomics, molecular evolution, physiological genomics, phylogenomics, functional genomics, computational genomics, conservation genomics, evo-devo, and eco-evolutionary genomics. Exceptional candidates outside these areas will also be considered. The candidate's research program may focus on any taxon or domain of life.

A Ph.D. in biology or related field and postdoc experience in evolutionary biology or related field is required prior to the start of the appointment. Expectations of the successful candidate include excellence in research and graduate training, engagement in collaborative research, establishment of an extramurally funded research program, University and professional service, public outreach, and skilled teaching at undergraduate and graduate levels. Our goal is to hire an outstanding and collaborative individual with broad research interests and promise for intellectual growth.

The position is based in the Department of Integrative Biology, which has 19 regular faculty members and 62 graduate students, drawn from multiple interdepartmental graduate programs on campus. The department brings together faculty and research programs that span a wide range of interests, including behavioral



neuroscience, developmental and cellular neuroscience, cell biology, developmental biology, animal behavior, ecology and evolution. The department offers a stimulating research environment as well as opportunities for collaborative research in other departments. Located at the nexus of four beautiful lakes, Madison, the state capital, consistently ranks among the top American cities for its quality of life. Additional information regarding the Department of Integrative Biology is available at <http://integrativebiology.wisc.edu>. The University of Wisconsin has an active and vibrant research community with ~37 biology departments and several biological research institutes. Faculty members conducting research in Evolutionary Biology across campus are listed here: <http://www.evolution.wisc.edu/>. Interested candidates can apply for Job (PVL100601) here: <https://jobs.hr.wisc.edu/en-us/job/502884/-assistant-or-associate-professor-of-evolutionary-biology>. To ensure consideration, applications should be received by December 1, 2019.

Diversity is a source of strength, creativity, and innovation. UW-Madison aims to fulfill its public mission by creating a welcoming and inclusive community for people from every background. Candidates from under-represented groups are especially encouraged to apply.

Carol Eunmi Lee, Ph.D. Professor Department of Integrative Biology

430 Lincoln Drive, Birge Hall University of Wisconsin Madison, WI 53706 [carollee@wisc.edu](mailto:carollee@wisc.edu)

Carol Eunmi Lee <[carollee@wisc.edu](mailto:carollee@wisc.edu)>

[carollee@wisc.edu](mailto:carollee@wisc.edu)

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## UWisconsin Milwaukee MicrobialGenetics

The Department of Biological Sciences at the University of Wisconsin-Milwaukee (UWM) invites applications for a tenure-track ASSISTANT PROFESSOR position in microbial genetics/genomics to start in Fall 2020. We seek an outstanding candidate with a strong record of research in microbial genetics and pathogenesis. This position is part of a larger departmental strategic hiring initiative in Host-Pathogen Interactions.

Research may include mechanisms of bacterial virulence, antimicrobial resistance, microbe-host or microbe-virus interactions, effects of the host microbiome on disease, and related areas. Laboratory space accommodating

BSL-1 or BSL-2 is available. A Ph.D. degree and at least 2 years postdoctoral experience in microbial genetics or a related area are required. The successful candidate is expected to establish a vigorous, extramurally funded research program, train students (undergraduate, M.S., and Ph.D.) and postdoctoral associates, and contribute to the biology curriculum, including a course in microbial genetics. We welcome applications from members of groups that are typically under-represented in science.

To apply, please go to <http://jobs.uwm.edu/postings/-29473>. A completed application includes a cover letter, curriculum vitae, statement of current and future research (3 page maximum), and teaching philosophy (1 page maximum). Also submit the names and email addresses of 3 references in the Reference Letter section of the employment website. An automated email will be sent to your references with instructions on how to attach the reference letter to your application through a confidential on-line portal. Review of applications will start on Nov 1, 2019. Applications received after this date may also be reviewed. For more information about the UWM Department of Biological Sciences visit <https://uwm.edu/biology/> UWM is a public urban R1 research university with a commitment to academic excellence. UWM is an Equal Opportunity/Affirmative Action Employer.

Emily Latch <[latch@uwm.edu](mailto:latch@uwm.edu)>

Emily K. Latch Associate Professor Dept. of Biological Sciences University of Wisconsin - Milwaukee 3209 N. Maryland Ave. Milwaukee, WI 53211

Email: [latch@uwm.edu](mailto:latch@uwm.edu) Tel: 414-229-4245 Web: <http://www.uwm.edu/~latch> [latch@uwm.edu](mailto:latch@uwm.edu)

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## Vienna PopulationGenetics

Tenure-track group leader position available at the Institute of Population Genetics, Vetmeduni Vienna.

The Institute of Population Genetics at the Vetmeduni Vienna is recruiting a group leader (tenure-track, roughly equivalent to an assistant professorship). The research focus of the Institute of Population Genetics is on understanding the genetics of adaptation. This central question in evolutionary biology is being tackled using up-to-date methods and a variety of approaches, including experimental evolution, quantitative genetics, examination of life history traits, empirical population genetics, bioinformatics and statistics. The workhorse

organism in the institute is *Drosophila*. We do not only host an impressive set of populations evolved to different temperature regimes, but we also maintain one of the largest collections of natural *D. melanogaster* populations.

The successful candidate will have a record of high-quality research in population genetics, preferably with a proven ability to attract extramural funding. While we welcome applications from experimentalists as well as theoreticians, we expect that the future post holder will actively enhance our visibility in *Drosophila* population genetics.

In recent years, Vienna has developed into one of the leading centers in evolutionary biology (<http://www.evolvienna.at>). In addition, the Vienna School of Population Genetics (<http://www.popgen-vienna.at>), attracts an international body of graduate students. Apart from a stimulating scientific environment, Vienna also offers an extraordinarily high quality of life. Affordable housing, excellent public transport, great restaurants, a range of international schools, two operas, two music centers, many theaters and museums in combination with a pleasant climate make Vienna one of the most attractive cities in Europe.

The position is available from March 2020, but the exact starting date is negotiable. The application should be emailed to [christian.schloetterer@vetmeduni.ac.at](mailto:christian.schloetterer@vetmeduni.ac.at) as a single pdf containing CV, list of publications, a statement of research interests, and the names of three references with contact details. While the search will continue until the position is filled, applications should be received by November 30, 2019 to ensure full consideration.

Christian Schlotterer Institut für Populationsgenetik  
Vetmeduni Vienna Veterinärplatz 1 1210 Wien Austria/Europe

phone: +43-1-25077-4300 fax: +43-1-25077-4390  
<http://www.vetmeduni.ac.at/en/population-genetics/>  
Vienna Graduate School of Population Genetics  
<http://www.popgen-vienna.at> Christian Schlotterer  
<[christian.schloetterer@vetmeduni.ac.at](mailto:christian.schloetterer@vetmeduni.ac.at)>

## Vienna Research Associate Evolutionary Modeling

University Assistant (= Research Associate/Senior Postdoc), 6 years in Evolutionary Modeling at the University

of Vienna

The mathematics and biosciences group (MaBS) at the University of Vienna is looking for a strong and highly motivated candidate for a University Assistant position in evolutionary modeling. The research focus is flexible and includes work in population genetics or genomics, quantitative genetics, and evolutionary ecology. See the MaBS homepage ([www.mabs.at](http://www.mabs.at)) for further information on our research interests.

In recent years, Vienna has developed into one of the leading centers in evolutionary biology ([www.evolvienna.at](http://www.evolvienna.at)). In addition to a stimulating scientific environment, Vienna also offers an extraordinarily high quality of life. Affordable housing, excellent public transport, great restaurants, a range of international schools, two operas, two music centers, many theaters and museums in combination with a pleasant climate make Vienna one of the most attractive cities in Europe.

The successful candidate will have a record of high quality research in evolutionary modeling. S/he is expected to develop and maintain an independent research profile and to attract extramural funding. In addition to research, the candidate will contribute to teaching and supervise students. The position will be offered for 6 years and comes with a competitive salary. The starting date is November 2019 or later (negotiable).

Formal requirement is a PhD and a strong background and interest in quantitative evolutionary research (analytical or computational modeling). Prior postdoc experience and the proven ability to attract funding are desirable. The working language is English, German skills are not essential.

Applications should include: # Cover letter # CV with publication list and grants, # summary of past and future research plans, # teaching experience, # names and email addresses of three potential referees.

Full applications (preferably as a single pdf) should be sent via the Job Center to the University of Vienna (<http://jobcenter.univie.ac.at>, email: [jobcenter@univie.ac.at](mailto:jobcenter@univie.ac.at)), with cc to Joachim Hermisson ([joachim.hermisson@univie.ac.at](mailto:joachim.hermisson@univie.ac.at)) # no later than October 29th, 2019 # referenced to the identification number 9914. Informal inquiries should be sent to Joachim Hermisson.

– Joachim Hermisson Professor for Mathematics and Biosciences University of Vienna Department for Mathematics Nordbergstr. 15, 1090 Vienna, Austria and Max F. Perutz Laboratories Dr.-Bohrgasse 9, 1030 Vienna, Austria phone: +43 (0) 1 4277 50648 email: [joachim.hermisson@univie.ac.at](mailto:joachim.hermisson@univie.ac.at) [www.mabs.at](http://www.mabs.at) Joachim Hermisson <[joachim.hermisson@univie.ac.at](mailto:joachim.hermisson@univie.ac.at)>

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## Virginia Commonwealth University Evolutionary Ecology

Tenure-Track Faculty Position in Evolutionary Ecology/Evolutionary Biology

Department of Biology Virginia Commonwealth University Richmond, VA

The Department of Biology at Virginia Commonwealth University invites applications for a tenure-track faculty position in evolutionary ecology/evolutionary biology at the level of Assistant Professor to begin August 2020.

We seek candidates with a research focus in understanding how organisms, populations, or communities respond to rapidly changing environments. This could include investigations of eco-evolutionary feedbacks, urban evolution, ecology and evolution of vector-borne diseases, and evolutionary responses to global change. The preferred candidate will engage in research involving animals, both to provide experiential learning opportunities for undergraduate students as well as fill existing curriculum gaps. Applicants should have a PhD, post-doctoral research experience, and demonstrated success with acquiring or the potential to acquire external funding. The Department of Biology is committed to reflect our highly diverse student population with recruitment and retention of diverse faculty.

Candidates are expected to develop a creative, nationally recognized, and well-funded research program in evolutionary ecology/evolutionary biology and participate in the inclusive mentoring and instruction of undergraduate and graduate students. Successful applicants will have excellent opportunities to establish strong collaborations with other researchers in the Department of Biology, the College of Humanities and Sciences, the School of Life Sciences, and the VCU School of Medicine.

Virginia Commonwealth University, an urban R1 university located in the heart of Richmond, Virginia, has an enrollment of approximately 32,000 undergraduate, graduate, and professional students, including 43% minority, 29% underrepresented minority, and international students representing 101 countries. The University is recognized as one of the best employers for diversity and is committed to the recruitment and success of culturally and academically diverse faculty that reflect our unique campus demographics. The Department of Biology (<https://biology.vcu.edu>) has 42 full-time fac-

ulty members with diverse research interests who teach and mentor approximately 2,000 undergraduate and 45 graduate students. The Department has outstanding facilities and support, including vivaria and access to high-throughput DNA sequencers, high performance computing clusters, the VCU Rice Rivers Center, and a diversity of public lands. In addition to an M.S. program, the Department is served by a doctoral graduate program in Integrative Life Sciences.

Please apply online at [www.vcujobs.com](http://www.vcujobs.com) and be prepared to submit a cover letter, curriculum vitae, three references, and concise statements of: 1) research accomplishments and plans, 2) teaching experience and goals, and 3) commitment to diversity and inclusivity. References will be contacted by email for letters of recommendation. The position is open until filled, though priority consideration will be given to those applicants who apply by December 2, 2019.

Virginia Commonwealth University is an equal opportunity, affirmative action university providing access to education and employment without regard to age, race, color, national or ethnic origin, gender, religion, sexual orientation, veteran's status, political affiliation or disability. Women, minorities and persons with disabilities are encouraged to apply.

Andrew J Eckert <[aekert2@vcu.edu](mailto:aekert2@vcu.edu)>

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## Xelect St Andrews UK Genetics

Senior Scientific Officer in Genetics

Permanent position. Full time. Up to 45,000 p/a

Xelect manages breeding programmes for fish and shrimp species across the Americas, Europe, SE Asia, Africa and Oceania, including for some of the most well-known and progressive companies in the industry. The company also operate an internal R & D programme at the forefront of aquaculture genetics and we are an industrial partner in several major academic research project. We wish to recruit another highly motivated person to join our team and are looking for a suitably qualified person with a strong grounding in quantitative genetics.

Candidates are expected to have a relevant PhD or advanced MSc in quantitative genetics and animal breeding and some work experience. Knowledge of aquaculture would be a distinct advantage, but we would also welcome applications from candidates with a strong back-

ground in any field of animal or plant genetics and breeding. The salary on offer will depend on experience up to a maximum of 45,000 per annum. Additional benefits include 28 days paid holiday/year and involvement in the company's pension and share option incentive schemes. More information about the company, including more detailed further particulars for the position can be found at [www.xelect.co.uk](http://www.xelect.co.uk). Applications should comprise a cover letter, curriculum vitae and the names and contact details of 3 referees and sent by e-mail to

Ian Johnston ([ian.johnston@xelect.co.uk](mailto:ian.johnston@xelect.co.uk)). The closing date is 21st October 2019.

Informal enquires can be made to Professor Ian A. Johnston FRSE, Chief Executive Officer +44(0)1334 845357, e-mail [ian.johnston@xelect.co.uk](mailto:ian.johnston@xelect.co.uk) or Dr Tom Ashton, Operations Director +44 (0)1334 845204, e-mail [tom.ashton@xelect.co.uk](mailto:tom.ashton@xelect.co.uk).

FURTHER PARTICULARS <https://xelect.co.uk/further-particulars/> Marie Smedley <[marie.smedley@xelect.co.uk](mailto:marie.smedley@xelect.co.uk)>

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## Other

ASN SSE SSB Inclusiveness Award .....	91	Fellowship TeachingScienceAbroad .....	97
BergenNorway FundForSystematicsWork .....	91	GeneticsGenomics Scholars .....	97
Berlin Fellowships .....	92	Paraguay TropicalEcolResIntern .....	98
Call WorkingGroups Leipzig .....	92	RNASeq vs TagSeq answers .....	99
ChestFreezer Recommendations .....	93	SMBE conference CallForProposalsToHost2023 ...	100
Controlled Image Vocabularies .....	93	TaxonomyPublications Survey .....	100
DAMBE Update .....	94	Taxonomy survey .....	101
eDNA Metabarcoding txt .....	95	UIowa REU Evolution .....	101
Epidemiology Modelling Challenge .....	95	UndergraduateTeachers survey .....	101
Epistasis Species Assemblages .....	96		

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### ASN SSE SSB Inclusiveness Award

The American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists announce the call for nominations for the 1st annual \*ASN/SSE/SSB Inclusiveness, Diversity, Equity, and Access (IDEA) Award. \*The IDEA Award will be given to a person at any career stage who has strengthened the ecology and evolutionary biology community by promoting inclusiveness and diversity in our fields.

The award can also be presented to a group. The recipient will receive a plaque at the annual meeting of ASN/SSB/SSE and a \$1000 honorarium.

\*\*\*Eligibility Note: No contemporary officer, editor, member of diversity committee, or meeting organizer of the three societies is eligible for the award.\*\*\*

Nomination packages should include:

- 1) A single letter including biographical information (name, title, organization) of the person or group being nominated, along with a short description (300 words or less) of the activities supporting the nomination. The letter must also include a section on the nature of impact

the person or group has had on inclusivity, diversity, and equity in the field.

2) A brief biosketch or list of activities (maximum 3 pages) for the person/group nominated.

3) Self-nominations are welcome and should be accompanied by a letter of support for the nomination from someone familiar with the activities of the nominee.

Nominations should be submitted by \*January 15, 2020\* by going to the award nomination form: <http://bit.ly/evoidea> – \*Kati Moore\* \*Communications Manager\* \*Society for the Study of Evolution\* [communications@evolutionsociety.org](mailto:communications@evolutionsociety.org) [www.evolutionsociety.org](http://www.evolutionsociety.org) SSE Communications <[communications@evolutionsociety.org](mailto:communications@evolutionsociety.org)>

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### BergenNorway FundForSystematicsWork

#### Schander Memorial Fund

The main focus of the Schander Memorial Fund lies in encouraging scientific cooperation in marine biology by providing financial support for fieldwork (collecting of material for taxonomic and/or biodiversity work) and taxonomic studies in museum collections.

Visiting marine taxonomists and systematists can apply for funding for travel and accommodation in connection to short term visits at the Marine Biological Station in Espegrend and at the University Museum of Bergen Norway. Likewise, Master and PhD students in marine biology at University of Bergen can apply for support for short-term projects in cooperation with other institutions or support for conference participation where they will present their own results. Projects including fieldwork or work in scientific collections will be prioritized.

Selection will be done by the five-member funding board of national and international scientists and family members.

There are up to 3 stipends of 10.000,- NOK each available.

Please see <https://www.uib.no/fg/mb/76538/christoffer-schander-memorial-fund> to apply. Questions can be addressed to Dr. Karin Pittman, Department of Biological Sciences, University of Bergen, [karin.pittman@uib.no](mailto:karin.pittman@uib.no).

Kenneth M. Halanych Schneller Chair, Alumni Profes-

sor Curator of Marine Invertebrates Biological Sciences Department Life Sciences Bld. 101 Auburn University Auburn, AL 36849

<http://metazoan.auburn.edu/halanych/lab/index.html>

Phone: (334)-844-3222 e-mail: [ken@auburn.edu](mailto:ken@auburn.edu)

Editor-In-Chief The Biological Bulletin <http://www.journals.uchicago.edu/toc/bbl/current> Kenneth Halanych <[ken@auburn.edu](mailto:ken@auburn.edu)>

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### Berlin Fellowships

GAIN TIME TO THINK! 2020/21 COLLEGE FOR LIFE SCIENCES FELLOWSHIPS DEADLINE: NOVEMBER 24,2019 CALL FOR APPLICATIONS APPLY ONLINE HERE: [www.wiko-berlin.de/cfs](http://www.wiko-berlin.de/cfs)

The College for Life Sciences is a junior program of the Wissenschaftskolleg zu Berlin - Institute for Advanced Study. It offers excellent early career researchers in the life sciences and medicine an opportunity to take a break from the lab and clinic. Fellows will gain time to work and develop their own projects and immerse themselves in the intellectually and culturally diverse environment of the Wissenschaftskolleg.

Each year the Wissenschaftskolleg welcomes around 40 internationally recognized senior as well as promising junior scholars in all fields of knowledge, including the humanities, the social sciences and the arts. Fellows of the College for Life Sciences are invited to become part of this “learning community”. Our goal is to promote a kind of science that transcends disciplinary boundaries and goes beyond established issues and approaches. As we do not provide lab space, it is not “just another fellowship”, but the opportunity to step back from your routines and reflect your institutional and intellectual “settings”.

Through the College for Life Sciences we promote scientists at the beginning of their career, i.e., postdocs, junior group leaders, lecturers and assistant, associate and junior professors.

The fellowships are intended for residencies of 3-6 months during the academic year 2020/21, i.e., September 2020 June 2021.

BENEFITS OF THE FELLOWSHIP - Three to six months’ residency at the Wissenschaftskolleg in Berlin - A full stipend based on your previous salary - Studio accommodation on campus - Freedom to pursue a



project of your choice - Insight into new areas of knowledge and research cultures - Integration into a unique international community of Fellows - Access to Berlin's excellent scholarly and scientific community - Access to the Wissenschaftskolleg's outstanding library and IT services

For more details please visit: [www.wiko-berlin.de/cfls](http://www.wiko-berlin.de/cfls) APPLICATION AND REQUIREMENTS Please apply by November 24, 2019 with a project outline (about 1000 words), a letter stating your motivation for wishing to obtain a fellowship (about 500 words), your complete curriculum vitae, and a list of your publications here: <https://cfls-application.wiko-berlin.de/> You are completely free to choose the project that you will pursue at the Wissenschaftskolleg; we impose no thematic pre-conditions whatsoever.

You must have obtained your doctorate by the start of your fellowship, and we also require that you have at least one lead-author publication in a peer-reviewed journal. There are no restrictions regarding your discipline of origin in the life sciences, your nationality, or your age etc. Applications from scientists working at institutions in Berlin cannot be taken into consideration. If you have been a principal investigator for longer than five years, though, you are advised to apply for a regular fellowship at the Wissenschaftskolleg. We would be grateful if you could post this announcement at your institution and circulate it among colleagues and scholars whom you think would be qualified and interested in applying for this program.

Dr. Ulrike Pannasch Wissenschaftliche Koordinatorin Academic Coordinator College for Life Sciences [ulrike.pannasch@wiko-berlin.de](mailto:ulrike.pannasch@wiko-berlin.de)

WISSENSCHAFTSKOLLEG ZU BERLIN INSTITUTE FOR ADVANCED STUDY Wallotstraße 19 14193 Berlin Tel.: +49 30 89 00 1 - 255 [www.wiko-berlin.de/cfls](http://www.wiko-berlin.de/cfls)

Ulrike Pannasch <[paul@wiko-berlin.de](mailto:paul@wiko-berlin.de)>

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## Call WorkingGroups Leipzig

[A new sDiv call for working groups, individual postdocs and sabbaticals]

Dear colleagues,

sDiv has opened a new call for Working Groups, Individual Postdocs and Sabbaticals!

Deadlines:

Pre-proposal 11 December 2019

Full proposal 31 March 2020

For more information check: [www.idiv.de/sdiv/calls](http://www.idiv.de/sdiv/calls) Please spread the word & apply :) Find the one-page teaser for this call to distribute among your networks and beyond.

[https://www.idiv.de/fileadmin/content/Files\\_sDiv/-sDiv\\_call\\_documents/8th\\_sDiv\\_Call\\_one\\_pager.pdf](https://www.idiv.de/fileadmin/content/Files_sDiv/-sDiv_call_documents/8th_sDiv_Call_one_pager.pdf)

Thanks a lot!

Thanks again for your interest in iDiv's synthesis centre and I hope to see you again here in Leipzig.

With my best regards from sunny Leipzig,

sMarten Winter

Dr. Marten Winter Scientific Coordinator Synthesis Centre sDiv / Wissenschaftlicher Koordinator Synthesezentrum sDiv German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig Phone 49(0)341-97-33129 Fax 49(0)341-97-39358 Email [marten.winter@idiv.de](mailto:marten.winter@idiv.de)

Homepage [https://www.idiv.de/en/groups\\_and\\_people/-employees/details/64.html](https://www.idiv.de/en/groups_and_people/-employees/details/64.html) German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig

Deutscher Platz 5e

04103 Leipzig

Germany

iDiv is a research centre of the DFG ??? Deutsche Forschungsgemeinschaft

iDiv ist eine zentrale Einrichtung der Universität Leipzig im Sinne des ?? 92 Abs. 1 S??chsHSFG und wird zusammen mit der Martin-Luther-Universität Halle-Wittenberg und der Friedrich-Schiller-Universität Jena betrieben sowie in Kooperation mit dem Helmholtz-Zentrum für Umweltforschung GmbH ??? UFZ. Beteiligte Kooperationspartner sind die folgenden an der Universität Leipzig: das Helmholtz-Zentrum für Umweltforschung GmbH - UFZ, das Max-Planck-Institut für Biogeochemie (MPI BGC), das Max-Planck-Institut für chemische Ökologie (MPI CE), das Max-Planck-Institut für evolutionäre Anthropologie (MPI EVA), das Leibniz-Institut Deutsche Sammlung von Mikroorganismen und Zellkulturen (DSMZ), das Leibniz-Institut für Pflanzenbiochemie (IPB), das Leibniz-Institut für Pflanzen-genetik und Kulturpflanzenforschung (IPK) und das Leibniz-Institut Senckenberg Museum für Naturkunde Göttingen (SMNG). USt-IdNr. DE 141510383

“Winter, Marten” <[marten.winter@idiv.de](mailto:marten.winter@idiv.de)>

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## ChestFreezer Recommendations

Dear List:

We are in the market for a couple of new, chest-style -80 freezers but have recently had bad luck with reliability of these. Can you recommend makes and models for freezers you have found to be reliable?

Thanks, Steve

Steve Kimble

Clinical Assistant Professor, Towson University

skimble@towson.edu

<https://www.towson.edu/fcsm/departments/biology/-facultystaff/skimble.html> "skimble@towson.edu"  
<skimble@towson.edu>

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## Controlled Image Vocabularies

The Views Controlled Vocabularies Task Group has been tasked by the Audubon Core Maintenance Group to develop controlled vocabularies for the terms ac:subjectPart and ac:subjectOrientation, to be used to describe the part(s) and orientation of an organism in an image respectively.

In order to determine the requirements for the controlled vocabularies, the Task Group is collecting use cases from the community. If you have used or would like to use either of these two properties of a media item that describe what is being viewed and how, we would love to have your input. To submit one or more use cases, use the form at <https://forms.gle/R8b329g5y12ybT347>. For additional information and to see use case examples, visit this page at the Task Group Github site: <https://github.com/tdwg/ac/blob/master/views/use-case-examples.md>.

If you have questions, please email Steve Baskauf at [steve.baskauf@vanderbilt.edu](mailto:steve.baskauf@vanderbilt.edu) or any of the other core members listed on the Task Group home page: <https://github.com/tdwg/ac/tree/master/views>. Use cases will be accepted through 2019-11-01.

Matthew Nielsen on behalf of the Views Controlled

Vocabularies Task Group

Matthew Nielsen <[matthew.nielsen@zoologi.su.se](mailto:matthew.nielsen@zoologi.su.se)>

Matthew Nielsen <[matthew.nielsen@zoologi.su.se](mailto:matthew.nielsen@zoologi.su.se)>

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## DAMBE Update

Dear Colleagues,

I have uploaded a new version of DAMBE (7.2) to <http://dambe.bio.uottawa.ca/DAMBE/dambe.aspx> 1. Almost all alignment functions are now done with the included MAFFT and MUSCLE (with authors' permission), except for the pairwise alignment in the PhyPA function (Phylogenetics from pairwise alignment, Xia 2016, MPE) which includes codon-based alignment not available in MAFFT and MUSCLE. However, DAMBE allows you to do quasi-codon-based alignment in MAFFT/MUSCLE. After you open a set of codon sequences, click 'Alignment | MAFFT' or 'Alignment | MUSCLE' and choose 'Align as codon seq.' (default if the input sequences are protein-coding sequences). This function is in fact available and described in detail in Xia (2000. Data analysis in molecular biology and evolution. Kluwer). It is behind the scene in three steps: 1) translate sequences into AA sequences, 2) align AA sequences, 3) map codon sequences to aligned AA sequences. DAMBE reminds users to cite the original MAFFT/MUSCLE references.

2. If you have 1000 files, each with a set of homologous sequences, you call click all the files and DAMBE will align them one file at a time with either MAFFT or MUSCLE. Most functions in DAMBE has a multi-file option.

3. For evaluate the quality of multiple sequence alignment (MSA) from various methods including manual alignment/refinement, a typical measure is the summation of all pairwise alignment scores (without counting shared gaps). This function you can access by clicking 'Alignment | Evaluate a multiple alignment'. If you have aligned 1000 files with both MAFFT and MUSCLE and wish to see which one generates better MSA, you can use this function to generation 1000 multiple alignment scores from the 1000 files aligned by MAFFT and another 1000 multiple alignment scores from the 1000 files aligned by MUSCLE, and then choose MSA with higher scores.

4. After aligning your 1000 files, DAMBE can assemble them into a supermatrix with a few clicks. For example,

if you are interested in the phylogeny of 100 species, and some of your 1000 files may contain only a subset of these 100 species. The common practice is to concatenate all these 1000 files into a supermatrix.

5. I have added a new function for choosing the best outgroup for phylogenetic analysis. It is based on three criteria: distance-based, parsimony-based and PWM-based (position weight matrix-based). The best outgroup should increase the resolution of the deep phylogeny (the deep part of the phylogeny)

6. I have replaced most of the internal likelihood-based phylogenetic methods by the included PhyML (with author's permission). The phylogenetic tree is graphically shown. You may click 'Tree | Re-root tree' to re-root the tree. The nodes are then numbered. You click any numbered node to re-root the tree.

7. This replacement with PhyML also affects an old ProtML function accessed by clicking 'Phylogenetics | Maximum likelihood | ProtML for highly diverged sequences'. What the function does is simply recode the 20 amino acids into four groups (LargePolar, SmallPolar, LargeNonpolar, SmallNonpolar). This allows the nucleotide-based phylogenetic methods to be applied to amino acids. This function has been in DAMBE for a long time, but I see its value only very recently when I dealt with truly highly diverged protein sequences. It helps to resolve relationship among deep nodes, but the shallow part of the resulting phylogeny is poor as one would expect given that many phylogenetic signals become ambiguous after the recoding. It is somewhat equivalent to recoding nucleotide sequences to two categories (purine and pyrimidine). It does seem to help with the deep part of the tree. This ProtML function simply recoding the AA sequences and then let PhyML to do the "nucleotide"-based phylogenetic analysis. You will see that the Polar-nonPolar replacement rate is typically lower than the Large-Small replacement rate (equivalent to transversion and transition).

8. Several people asked about the function of degenerating codon sequences to avoid composition bias and other phylogenetic signal bias. For example, if homologous sequences A, B, C have UUA, CUU, and UUU at the same site. The first two codons are Leu codons, but the third is a Phe codon. Thus, for this site, sequences A and B should be most similar to each other, but the two codons differ by one transition and one transversion. In contrast, the second and third codons, albeit nonsynonymous, differ by only a single transition. After codon degeneration, the three codons become YUN, YUN and UUY, so the first two synonymous codons are identical and both differ somewhat from the third nonsynonymous codon. Another degeneration protocol

is to degenerate the three codons to CUN, YUR, and UUY which has some advantage over the

— / —

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

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## eDNA Metabarcoding txt

Call for contributions to a Special Issue in the journal DIVERSITY entitled 'Environmental DNA and Metabarcoding in Marine Systems'

[https://www.mdpi.com/journal/diversity/special\\_issues/environmental\\_DNA\\_marine#editors](https://www.mdpi.com/journal/diversity/special_issues/environmental_DNA_marine#editors)

Michelle R. Gaither, Joseph DiBattista, Matthieu Leray, and Sophie von der Heyden are leading a special issue titled 'Environmental DNA and Metabarcoding in Marine Systems'

This SI is an opportunity to highlight work in this rapidly expanding field. Our focus on marine systems is designed to bring together a suite of papers on the topic that will garner attention. The deadline for submission is June 30th, 2020 but early submissions are encouraged and will be published as they come.

If you are interested in contributing or if you have ideas for possible projects and collaborations please reach out and we would be happy to discuss.

DIVERSITY (ISSN 1424-2818) is an open access journal. Publishing fees are 1400 CHF which at the current exchange rates is about \$1400.

Special Issue Abstract: Methods traditionally used for biodiversity assessments are increasingly being supplemented by DNA-based approaches. Sequencing of environmental DNA (eDNA) or of DNA from mixed bulk samples such as plankton tows, benthic communities, and gut contents is rapidly growing in popularity as a tool for ecological studies and community assessments. Using these tools, it is increasingly possible to assess and track community-level biodiversity patterns from a single sample, enabling rapid, cost-effective comparisons of biodiversity across trophic levels, in contrasting habitats, and over time. While metabarcoding has predominantly been used to track species occurrences, a number of recent studies have demonstrated a correlation between species biomass (or density) and DNA

concentration, suggesting that these approaches may, in the future, be developed to reliably quantify species abundance. The purpose of this Special Issue is to explore the uses of eDNA and metabarcoding in marine systems. We welcome articles that both demonstrate, as well as challenge, the utility of this emerging tool. We strongly encourage methodological papers that empirically test protocols and provide new resources for the larger community. We also look forward to receiving articles that use metabarcoding to address questions in ecology, biogeography and conservation in novel ways.

Please feel free to contact Michelle R. Gaither (michelle.gaither@ucf.edu) for more information.

Michelle R. Gaither Assistant Professor University of Central Florida Genomics and Bioinformatics Cluster Department of Biology 4110 Libra Drive, Orlando, FL 32816

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## Epidemiology Modelling Challenge

Dear colleagues working in epidemiology & modelling,

We are pleased to announce the first \*open modelling challenge on African Swine Fever (ASF)\*\*!\* We believe you might be interested.

The Challenge's objective is to create a unique and stimulating environment to enhance the ability of modellers to advise policy makers in a timely manner. More specifically, it aims at improving the readiness of modelling teams when facing emerging threats such as ASF and at promoting international collaborations.

This challenge will officially start in March 2020, at the next SVEPM meeting (<https://svepm2020.ie/>). \*Applications will open the 1st of Nov. 2019\* (free) and will be closed the 30th of January 2020. Details on rules and how to participate can be found here: [\\*https://www.inra.fr/asfchallenge/\\*](https://www.inra.fr/asfchallenge/). You can also follow the challenge updates on Twitter: @AsfMod < <https://twitter.com/AsfMod> >.

During the challenge, The Coordinators will generate synthetic data mimicking an ASF-like epidemic at the interface between pig farms and wild boars in a typical European context. On a monthly basis, these data will be given to the challenging modelling teams (The Players) while the epidemic develops. Players objectives is to reproduce the observed epidemic assuming a set of intervention strategies, predict its expansion for the next four weeks and prioritize a finite number of alternative

interventions. Any kind of model can be used. Note that previous modelling challenges have demonstrated that, in some situations, simple statistical models can be more useful than complex mechanistic models!

Above everything, this challenge is expected be fun and provide an inspiring platform to exchange knowledge and expertise on animal health modelling at the interface between livestock and wildlife. It will also be a nice opportunity to publish a special issue in a high-impact journal on our collective experience and results obtained.

Coordinators are P. Ezanno (INRA, Oniris, Nantes, France), S. Picault (INRA, Oniris, Nantes, France), and T. Vergne (INRA, ENVIT, Toulouse, France), greatly supported by a group of experts including E. Gilot-Fromont (VetAgroSup, Lyon, France), E. Baubet, S. Rossi & E. Marboutin (ONCFS, France), and C. Belloc (Oniris, Nantes, France), who have expertise on ASF epidemiology, ASF regulated control in livestock, and ASF regulated control in wildlife.

We are counting on you!

The Coordinators of the ASF modelling challenge\* \*

\*asfchallenge@inra.fr \*\*\*<https://www.inra.fr/asfchallenge/> \*\*< [@AsfMod](https://twitter.com/epidec_team) < <https://twitter.com/AsfMod> >\*

LOGO\_ASF\_Challenge

Timothee VERGNE <t.vergne@envt.fr>

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## Epistasis Species Assemblages

dear and reputable members of the evolDir,

i would like to kindly ask you for indications about publications and informal precedents pertinent to the possibility that the non-narrow-sense phenotypic variance may be exploited by NS and shape ecology and evolution in equilibrium and non-equilibrium situations. This may be more likely when this variance is large, but competitive exclusion, e.g., can be decided by subtle differences.

m.r.rose's 1980s lab experiments confirmed that at equilibrium the narrow-sense variance in fitness is quickly exhausted and only the non-narrow-sense "epistatic" one remains in quantities (plus developmental noise).

The distribution of non-narrow-heritable phenotypic variation can be made adaptively 1-tailed by modi-



fiers promoted through evolution by natural selection (EbNS).

As a side effect the modified distribution would also boost the demographic persistence and competitive ability of eukaryotic species.

But when say a competitive exclusion contest is won by a species' top performers even the non-modified distribution may be consequential.

The distribution of non-narrow-heritable traits can be made adaptive also by reformulating the epistatic genetic variation underlying the distribution.

Modifiers may suppress (canalize) the non-favorable tail of the distribution and others may augment the favorable tail. A tail-suppression modifier would invade if it increases *ceteris paribus* the viability and/or fecundity of individuals whose non-narrow-heritable genotypes otherwise result in inferior phenotypes.

Strangely perhaps, the modifiers would only be favorable if they land in individuals with the right epistatic endowment and would be fully straightjacketed to ("conditional to") their species' syndromes of epistatic variation, possibly to the point of being deleterious if crossed into the syndromes of other species.

Paradoxically, once evolved the 1-tailedness would let a random set of "spiteful" individuals with enhanced phenotypes be generated each generation that deny energy and resources to competing con-specifics and other species but whose "fitness with EbNS consequences" would be of no interest EbNS-wise because their phenotypes are not narrow-heritable.

Additionally, the enhanced individuals are likely to produce more progeny maternally possibly better supplied, reducing so the species' probability of extinction by demographic stochasticity, increasing its reproductive capacity, etc.

All in all, the enhanced individuals would put inter-specific competitors at a disadvantage as a superior asexual competitor would.

Furthermore, when species differ in their epistatic distributions these differences are narrow-heritable since they "breed true" as species persist through time, across generations or through overlapping generations.

NS can let species with adaptive distributions become over-represented within species assemblages, specially when inter-specific competition, displacements of species into refugia, and competitive exclusion are chronic, e.g., when new species relentlessly invade species assemblages.

It may be illuminating to distinguish between distributions that increase in frequency because the individuals

constituting them appropriate individually or as groups energy+resources that would be otherwise go to other individuals or groups, intra- and/or inter-specifically. This may suggest ways to start bridging the gaps between focussing on the fates of genes and gene coalitions vs.the trophic causation of events.

Adaptation to say changing environments may often include reshaping the distributions of non-narrow heritable phenotypes by re-orchestrating the modifiers that repress and augment the tails of these distributions and reformulating their underlying epistatic variation.

Even the steady-state population genetics of eukaryotic species in general (polymorphism maintenance?) and their genetic-load dynamics in particular, may be a lot about re-constituting each generation each species' syndrome of non-narrow-heritable phenotypic variation, to counter its disruption by mutation, genetic drift, and selection.

It would be surprising if EbNS is actually unable to exploit the substantial amounts of non-narrow-heritable phenotypic variation that are typical of eukaryotic species and must differ quanti- and quali-tatively between species.

Thanks a lot in advance for your indications about relevant literature and informal communications as well as for any feedback you may wish to share.

And of course, everything i receive will be shared back with evoldir unless you request otherwise.

best

marcos

marcos.antezana@gmail.com

marcos antezana <marcos.antezana@gmail.com>

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## Fellowship TeachingScienceAbroad

Dear EvolDir colleagues,

We are a small group of scientists running a non-profit that sends recent PhD graduates to rural locations in the Philippines and India. There, our fellows teach science, train teachers, and help develop science curriculum, in partnership with our host organizations.

Other than building science capacity at host locations, we also aim to offer our fellows a life-changing experience. They get to spend time in beautiful locations, embedded in a different culture, making a difference



where it matters, while also learning from the expert educators at the partner organizations that host them.

If you are a PI, we would be truly grateful if you could forward the ad below to your recently or soon-to-be minted PhDs. If you're a recent PhD, please see our ad below.

Also, if you know of any institutions worldwide that may share our goals, we would sincerely appreciate it if you could point us their way.

Please find more details about us at <https://science-corps.org> Would you like to spend up to 6 months making a difference by developing science curriculum and teaching science abroad?

We offer fully paid internships to upcoming and recent PhD graduates (up to 4 years after graduation) to help build science capacity at one of our two host locations: a small city on the beautiful island of Bohol in the Philippines, and an idyllic village up in the Indian Himalayas.

We are presently interested in recruiting immediately for both our sites, for fellowships starting January 2020 or soon thereafter. The deadline for this application round is the 31st October, but we encourage you to contact us if you would like to be considered for a later appointment.

To find out more about us and apply, please go to <https://science-corps.org> Stephen E. Harris, Ph.D. Assistant Professor of Biology, Purchase College SUNY < <https://www.purchase.edu/live/profiles/1759-stephen-harris> > Cofounder & Director, Science-Corps < <http://www.science-corps.org/> > (614) 915-4686 [stephen.harris@purchase.edu](mailto:stephen.harris@purchase.edu)

[harris917@gmail.com](mailto:harris917@gmail.com)

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## GeneticsGenomics Scholars

The Genetics & Genomics Initiative is recruiting the first cohort of students for the Genetics & Genomics (GG) Scholars program (deadline: January 15th, 2020). The GG Scholars program prepares future scientists for cutting edge, interdisciplinary research across the life sciences and is built on the philosophy that the exploration of genes and genomes informs all fields of biology. The GG Scholars program is open to current and incoming PhD students. Throughout PhD training, GG Scholars are provided with an array of opportunities for development as scientists, including a world-classGGI

Seminar Series, interactions withGGI Research Interest Groups, and a network of partnerships at the University and beyond to support careers in research, education, outreach, policy, and industry.

Learn more about the program by visiting our website here(<https://ggi.ncsu.edu/graduate-program/>) or in the attached flyer. There are 16 differentaffiliated PhD programs to the GG Scholars that students will complete their PhDs in. There are several pathways toapply to the GG Scholars program and new students will join this program either through an affiliated program or to the GG Scholars program itself. More details about the application process, links to the application, and application materials can be found on the web site and below.

Please share this program with anyone who you think might benefit from an umbrella graduate training program in Genetics and Genomics. If you have any questions please direct them to Dr. Martha Burford Reiskind ([mbreiski@ncsu.edu](mailto:mbreiski@ncsu.edu)) or the program directly ([gg\\_scholars@ncsu.edu](mailto:gg_scholars@ncsu.edu))

I have also attached a flyer.

Overview of the application process to the GG Scholars program

Martha Burford Reiskind, PhD Research Assistant Professor Department of Biological Sciences Director of the Genetics & Genomics Scholars Graduate program North Carolina State University Raleigh, NC 27695

Phone: 919.515.3495

Email: [mbreiskiatncsu.edu](mailto:mbreiskiatncsu.edu) or [martha\\_reiskindatncsu.edu](mailto:martha_reiskindatncsu.edu)  
Lab website:<http://burfordreiskind.com/> Twitter: @MobReiskind

Genetics & Genomics Scholars Contacts Website:<https://ggi.ncsu.edu/graduate-program/> Twitter: @NC-StateGGIGrad

Martha Burford Reiskind <[mbreiski@ncsu.edu](mailto:mbreiski@ncsu.edu)>

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## Paraguay TropicalEcolResIntern

\*Tropical Ecology Research Intern\*

Organization: Para La Tierra ([www.paralatierra.org](http://www.paralatierra.org))

Location: Pilar, Paraguay

Time Frame: Rolling Applications

Para La Tierra is searching for talented and hardwork-

ing research interns to join our team in Paraguay for 3 to 6 months. Our internship program provides young biologists an opportunity to step out of the classroom and into the field, gaining hands-on experience running a research project of their own design. Before arriving, our interns are challenged to come up with a research topic, review the relevant literature, and create a methodology with the support of our intern-supervisor. Once in-country, interns are trained in the field techniques required for their project. Whether its mist-netting for birds in the early hours of the morning, fishing at mid-day or staying out late hunting for frogs, PLT will make sure that our interns are confident in the methodology needed to move their research forward. Towards the end of the stay, all our interns give a final presentation in which they share the results of their study with the rest of the research team. The internship program is designed to give young scientists the opportunity to take control of every step of a scientific project. From conception to completion, our interns are in the driver seat.

\*When was the last time that your professor gave you the option to choose what you wanted to study? When was the last time your boss told you to follow your own passion? \*

At Para La Tierra, we specialize in training young biologists in the skills they need to enter further education or the job market. Based in Paraguay, the 'heart of South America,' we are the country's only year-round research station. Over the past 9 years, we have published over 60 peer-reviewed articles and discovered a few new species for science. Along the way, over 250 interns have helped contribute to the better understanding of Paraguay's understudied habitats.

Our research base is located in the city of Pilar, a beautiful location in the south of Paraguay, and the gateway to the Ñeembucú Wetland Complex (NWC). The NWC is composed of a mosaic of habitats, including grasslands, marches and humid Chaco. Deep forests lining the rivers and streams running through the area are bursting with wildlife, while river monsters the size of small cars lurk in the murky waters.

\*Come discover for yourself what Paraguay has to offer.\*

Our interns finish the program taking away a long list of newly learned skills, a professional reference, and one heck of an experience to share at their next interview. But they also leave behind a great deal. All of our intern projects are directly involved in conserving this threatened habitat. The scientific investigations of the area help raise awareness of the ecological importance of Ñeembucú at both the national and international levels. The most successful projects are published in scientific

journals, further raising the profile of Paraguay, and many interns make their way onto the author line for the first time in their early careers through their work with Para La Tierra.

The application period is rolling and there are no start or end dates, so the trip can be organized to suit the project and the person. Interns must be available to stay for a minimum of three months.

Applicants must be over 18 years old and have or be working towards a degree in a biology related subject. Conversational English is required. To apply please email your CV to [paralatierra.py@gmail.com](mailto:paralatierra.py@gmail.com).

\*Costs\* - Because the best things in life aren't free.

\$925 per month for the 1st 2 months and \$875 for each subsequent month.

Para La Tierra charges interns to cover costs of room and board. The price includes all living costs during their stay with us. Interns receive three meals a day, a bed in shared accommodation with hot showers and access to WiFi. The fee also covers the use of PLT's scientific equipment, minor administrative costs associated with the stay, and a small contribution to Para La Tierra's conservation and education projects.

Weekly basis pro rata payments are accepted in special cases. There is a 25% discount for South American nationals.

Joseph Sarvary <[joseph.sarvary@gmail.com](mailto:joseph.sarvary@gmail.com)>

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## RNASeq vs TagSeq answers

Hello,

We have received some very interesting responses to our problem regarding RNA-Seq vs. Tag-Seq. Just in case someone might be interested, here are all responses. Thanks to everyone for all their help,

Lucia

Original question Hello all,

My name is Lucia and I am a Biology PhD student from University of Buenos Aires, Argentina. For my thesis I am exploring the changes the bacteria *Wolbachia pipientis* induces in the weevil *Pantomorus postfasciatus* in order to make infected females parthenogenetic. We know there is a bacterial density threshold necessary to cause such a radical change in the weevil's reproductive system and one of my objectives is to identify differ-

entially expressed genes in ovarian tissue from sexual females, infected females and “cured” females (females treated with antibiotics to reduce the bacterial density below the threshold) in order to shed some light on how Wolbachia affects the reproductive system of infected weevils.

Two paths lay ahead of me: standard RNASeq or TagSeq. From what I have been reading, TagSeq is a low-cost but still reliable alternative (Meyer et. al., 2011 Vdoi: 10.1111/j.1365-294X.2011.05205.xV; Lohman et. al., 2016V doi: 10.1111/1755-0998.12529V; and Matz, 2018Vdoi: 10.1016/j.tig.2017.11.002V), the problem is that I do not know anyone who has personally used it so I am cautious.

On the other hand, there are two main issues to take into consideration upon making this decision. Firstly, the weevils cannot be bred in laboratory conditions and are quite hard to find in the wild, therefore, the amount of RNA that will be available is still unknown and I will need to make at least 3 replicates. Also, funding is incredible low: in a year the price of an American dollar has gone from 23 Argentinian pesos to 60 which means our ability to pay (in US dollars) for the libraries and sequencing has plummeted and that situation is not likely to change in the near future.

From this transpires the fact that we will to maximize the RNA extracted per ovary (on that topic I have found this protocol based on Matz (2002) and would be very grateful for your thoughts about it: <http://evrogen.com/technologies/RNA-isolation.shtml>), but the minimum amount of RNA per sample will also be important in choosing which method to use: for RNAseq we will need at least 500 ng of RNA per sample while for TagSeq protocols, some companies can go as low as needing 10 ng of RNA per sample.

What do you think about the two methods? Is one truly better or worthier than the other for detecting differential gene expression? What would your approach be if you were in my shoes?

Thank you all in advance! I am willing to post all replies...

Lucia

Lucia Fernandez Goya PhD Candidate Universidad de Buenos Aires Buenos Aires, Argentina [luf.goya@gmail.com](mailto:luf.goya@gmail.com)

Responses Hi Lucia, We did tag-seq a bunch of years ago when it emerged with the first Illumina sequencing platforms. We found a lot (and I mean a lot) of “apparent” anti-sense transcripts. Now, yes, there probably is more anti-sense transcription that we might think

(I know the human cancer geneticists got interested in it; not sure if still are), but not this much. Illumina stopped supporting it, and I wonder if there were issues that they never admitted to. If you can, I would use RNA-seq. I hope this is helpful. Best, Dave

Hi Lucia, It sounds an interesting project that you have. The following page is very helpful in understanding the pros and cons of TAG seq: <https://dnatech.genomecenter.ucdavis.edu/faqs/-when-do-you-recommend-3-tag-rna-seq/> In your case, there is no genome available for even a species in the same genus, which will be problematic. Also, you may be interested in splice variants, but the first issue is the biggest reason that TAG seq may not be the best for you. I hope the funding/economic situation gets better there. I was planning to come to Argentina for sabbatical Spring 2021, to Bariloche, but I am waiting to see given the current situation. Good luck with your project. All the best, Ben

Hi Lucia, This is paper we have on BioRxiv regarding our approach to do RNAseq for very cheap: <https://www.biorxiv.org/content/10.1101/585810v1> .There’s also a pipeline to process the data, and a protocol to extract your RNA that works for very small input material (e.g. single fly head). <https://lufpa.github.io/TM3Seq-Pipeline/> I developed it for my experiments where I have to sequence thousands of Drosophila melanogaster heads (tiny tiny heads) and get RNA and DNA from single heads. Take a look at it, it might help you. I’m also happy to answer any questions you might have. Cheers, Luisa

Hi Lucia,

— / —

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

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## SMBE conference CallForProposalsToHost2023

Dear SMBE Members:

Want to meet like-minded colleagues from all over the world?

Wish you could have an international conference in your field closer to home?

SMBE is looking for a local host for its 2023 international meeting. Informal expressions of interest should be from a prospective local organizing committee of scientists headed by an SMBE member, and should reach SMBE President-Elect Marta Wayne by 30 November 2019. Full proposals will need to be submitted using the SMBE template by 30 April 2020. Please email your proposal to [Smbe.contact@gmail.com](mailto:Smbe.contact@gmail.com).

For details of meeting organization, please see the SMBE Conference Guidelines (and specifically Appendix 2 which outlines the format of proposals).

The primary role of the local organizing committee will be to plan the scientific programme. All other aspects of the organization will be done in association with SMBE representatives and a professional conference organizer appointed by SMBE.

SMBE rotates its meetings geographically to encourage international participation. For 2023, we are particularly requesting proposals from North and South America. The next three years' meetings will be in Quebec, Canada (2020), Auckland, NZ (2021) and Ferrera, Italy (2022).

Please note that SMBE is not interested in proposals from professional conference organizers.

Looking forward to hearing from you.

Sincerely,

Marta Wayne President-Elect, SMBE

[Smbe.contact@gmail.com](mailto:Smbe.contact@gmail.com)

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

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## Taxonomy Publications Survey

Dear listers,

Firstly, I'm sorry for sending this again and for cross-posting (in case someone subscribes to more than one list).

We'd like to thank all the taxonomists out there who answered our survey and to remind those who might be interested to answer it, that they still have time. We'll still be receiving answers for the next two weeks, \*closing on November 3rd\*.

You can\* find the survey here\*:  
[https://docs.google.com/forms/d/e/-](https://docs.google.com/forms/d/e/-1FAIpQLSdC9BQk9vjsTccztL8sXmeGJUWi20F5XUKnHDWjbc4BXIviewform)

[1FAIpQLSdC9BQk9vjsTccztL8sXmeGJUWi20F5XUKnHDWjbc4BXIviewform](https://docs.google.com/forms/d/e/-1FAIpQLSdC9BQk9vjsTccztL8sXmeGJUWi20F5XUKnHDWjbc4BXIviewform) It is entirely anonymous and should take no more than \*5 minutes \*of your time.

Just to \*recap\*, we are investigating the publication culture in taxonomy across all taxa. If you work with Taxonomy / Systematics, we kindly invite you to help us. Also, please spread the word and invite your fellow taxonomists who you think would like to help us too.

Thank you very much. Best regards, Salvador, Cavallari & Tomotani.

[salvador.rodrego.b@gmail.com](mailto:salvador.rodrego.b@gmail.com)

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## Taxonomy survey

Dear listers,

We are a group of researchers investigating the publication culture in taxonomy across all taxa.

If you work with Taxonomy / Systematics, we kindly invite you to help us by filling a short survey. It should take no more than 5 minutes of your time.

You can find the survey here:

<https://docs.google.com/forms/d/e/-1FAIpQLSdC9BQk9vjsTccztL8sXmeGJUWi20F5XUKnHDWjbc4BXIviewform> It is entirely anonymous and the data gathered will be used for a publication on an academic journal.

Thank you very much for your cooperation and feel free to share the survey with your colleagues.

Kind regards, Salvador, Cavallari & Tomotani.

\*Rodrigo B. Salvador, PhD\* Museum of New Zealand Te Papa Tongarewa \*Twitter: [@Kraken\\_Scholar](https://twitter.com/Kraken_Scholar) <[https://twitter.com/Kraken\\_Scholar](https://twitter.com/Kraken_Scholar)> | \*Website: [\\* < https://rodrigosalvador.wordpress.com/ >](https://rodrigosalvador.wordpress.com/) Editor of the \*Journal of Geek Studies\*: <<https://jgeekstudies.org/>>

[salvador.rodrego.b@gmail.com](mailto:salvador.rodrego.b@gmail.com)

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## UIowa REU Evolution

Please share with undergraduates who would stand to benefit from research experiences in areas related to evolution, including anthropology and paleontology. Students from underrepresented minority groups and/or who have limited research opportunities at their home institution are especially encouraged to apply.

The University of Iowa is offering ten NSF-funded Research Experiences for Undergraduates (REU) opportunities during the summer of 2020. Research projects span a range of topics, including evolution of behavior, origin of species, cancer evolution, evolution of sex, Evo-Devo, and paleontology. REU students work on one project, but through interactions with their cohort ultimately receive a broad exposure to evolutionary science. As part of the program, students: receive training in research best practices, participate in career workshops, create a digital exhibit based on their research for the University of Iowa Natural History Museum, and make

formal research presentations based on their work. Free housing, a meal allowance, a \$6000 stipend, and a travel allowance will be provided to all participants.

The REU program website and application form can be found here: <https://biology.uiowa.edu/reu> If you have questions, contact Andrew Forbes ([andrew-forbes@uiowa.edu](mailto:andrew-forbes@uiowa.edu)) or Maurine Neiman ([maurine-neiman@uiowa.edu](mailto:maurine-neiman@uiowa.edu)).

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## Undergraduate Teachers survey

My colleagues and I are conducting a study on the perceptions of the importance of data science in undergraduate biology curricula. We welcome the EvolDir community to complete a short survey, found at the link below:

[https://kenyon.col.qualtrics.com/jfe/form/-SV\\_6xLf8OlusMfDBmR](https://kenyon.col.qualtrics.com/jfe/form/-SV_6xLf8OlusMfDBmR)

“Crispo, Erika”

<[ecrispo@pace.edu](mailto:ecrispo@pace.edu)>

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## PostDocs

AarhusU Bioinformatics .....	102	Eawag EvolutionaryEcosystemsEcology .....	109
AMNH NewYork EvolutionaryBiology .....	103	FreieUniversitt ViralEvolution .....	110
Basel Switzerland PathogenEvolution .....	103	FUBerlin HumanEvolution .....	111
BigelowLabs ProtistCellBiology .....	104	GEOMAR Germany MarineComparativeGenomics	111
cE3c Portugal Evolution .....	105	IISER-TVM Kerala India EvolEcol .....	112
CIBIO Portugal HumanEvolutionaryGenetics ...	105	KansasStateU DroughtAdaptationGenetics .....	112
CIB Madrid Bioinformatics .....	106	KBS MichiganStateU GenomicMechanismsOfAdapta-	113
ClemsonU OralMicrobeEvolution .....	106	tion .....	113
ColumbiaU TuberculosisEvolution .....	107	Lisbon MadagascarEndangeredSpecies .....	113
ConcordiaU PDFandPhD FishGenomics .....	107	LMU Munich ButterflyEvolution .....	114
CzechRepublic PhylogenomicsOfParasites .....	108	MaxPlanck Evolbio ModellingReciprocity .....	114



MaxPlanckInstitute EvolutionaryGenomics .....	115	Toulouse HumanEvolution .....	132
MaxPlanck Symbiosis .....	116	TrentU ComparativeGenomics .....	133
MBL WoodsHole EvolutionBacteria .....	117	UAlaska Anchorage SquirrelHostMicrobe .....	133
MIZ Gdansk DolphinEvolutionaryGenomics .....	117	UArizona VertebrateAlgaSymbiosis .....	134
MonashU Melbourne MosquitoEvolution .....	118	UBasel VertebrateSingleCellGenomics .....	135
MonashU WorldMosquitoEvolution .....	119	UBritishColumbia Biodiversity .....	135
NewYorkU PlantPopulationGenomics .....	119	UExeter HostParasiteInteractions .....	136
Norwich UK GenomicsBioinformatics .....	119	UFlorida Gainesville PDForPhD FungalSystematics	137
PasteurInst EvolutionAntibioticResistance .....	120	UGeorgia PlantPopulationBiology .....	137
Pittsburgh PlantEvolution .....	121	ULausanne QuantTraitVariation .....	138
PurdueU GeneticSurveillance PopulationModeling	121	ULiverpool EvolGenMelanism .....	138
Roscoff France DeepSeaMolluscEvolution .....	122	UmeaU Bioinformatics ClimateChangeBiodiversity	139
RoyalHollowayU London EvolutionaryTheory ....	123	UMinnesota CropPlantGenomics .....	139
RoyalMuseum CentralAfrica FruitFlyEvolution ...	123	UMinnesota MaizeGenomics .....	139
SanFranciscoStateU ViralEvolution .....	125	UNebraska PopulationBiology .....	140
SGN Frankfurt ComparativeGenomicsTEs .....	126	UPennsylvania EvolutionCellDifferentiation .....	140
SLU Uppsala PlantGenomics .....	127	UppsalaU EvolutionaryGeneticsPlasticity .....	141
SouthAfrica StripedMouseReproductiveCompetition	127	USunshineCoast UrbanAdaptation .....	142
StAndrews EvolutionaryQG .....	128	UWestFlorida MolecularEvolution .....	142
StLouis PlantEvolution .....	129	UWiconsin Madison ComputBiology .....	143
StockholmU MicrobialPopGenetics .....	129	UZagreb VirusEvolution .....	143
StockholmU UppsalaU MarineEndosymbiosis ....	129	VirginiaTech MetabolicEvolution .....	143
Tampa FL CancerEvolution .....	130	WashingtonU Biodiversity .....	144
TempleU ModelingInvasiveSpecies .....	131	WoodsHole MarineEvolution .....	144

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## AarhusU Bioinformatics

Postdoc in Bioinformatics

We seek a motivated and independent candidate for a 2-year postdoc position in bioinformatics available at the Department of Molecular Medicine (MOMA), Aarhus University. The position is available from January 1st, 2020 or as soon as possible thereafter.

The postdoc will work on an exciting project concerning the evolution of germline mutation processes in humans. This can include comparisons with datasets of human somatic mutations or germline mutations from other species. Depending on your interests, focus can be on methods development, large-scale data analysis, or both.

For details and application see <https://tinyurl.com/-yy2el3hb> Application deadline is October 31.

“besenbacher@clin.au.dk” <besenbacher@clin.au.dk>

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## AMNH NewYork EvolutionaryBiology

American Museum of Natural History RGGS Postdoctoral Fellowships

The Postdoctoral Research Fellowship Program at the American Museum of Natural History provides training to postdoctoral investigators to carry out a specific project within a limited time period. The project must fit into one or more of the Museum’s areas of interest: Anthropology, Invertebrate Zoology, Paleontology, Physical Sciences (Astrophysics and Earth & Planetary Sciences), and Vertebrate Zoology. This Fellowship Program is designed to advance the training of the participant by having him/her pursue a project in association with Museum professionals in the Museum setting.

Postdoctoral Fellows are expected to conduct their work at the Museum. Applicants are encouraged to contact potential curatorial sponsor(s) prior to applying. Appointments are typically made for two years. In addition

to a competitive salary and benefits, limited relocation, research and publication support is provided. Newly graduated or soon-to-graduate PhDs may apply. Fellows must have received their degrees or deposited their dissertations before they can begin their appointments. There are no citizenship or geographic requirements to apply.

Four Types of Postdoctoral Fellowships Are Available:

1. RGGS Postdoctoral Fellowships: Application November 15, 2019  
 2. Gerstner Scholars in Bioinformatics and Computational Biology: Application Due December 5, 2019  
 3. Frank M. Chapman Memorial Fund Research Fellowship - Ornithology  
 4. AMNH-Bard Research Fellowship in Museum Anthropology

For more info and to apply, please visit: <https://www.amnh.org/our-research/richard-gilder-graduate-school/academics-and-research/fellowship-and-grant-opportunities/postdoctoral-research-fellowship-program>  
 Anna Manuel <amanuel@amnh.org>

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## Basel Switzerland PathogenEvolution

A postdoctoral position is available in the research group of Richard Neher at the Biozentrum of the University of Basel. Our group works on evolution of pathogenic viruses and bacteria with a focus on seasonal influenza virus, enteroviruses, and drug resistance evolution in bacteria. Research in our group combines population genetics, phylogenetics, mathematical models, and next-generation sequencing to understand the complex dynamics of host-pathogen interactions. We have pioneered different analysis and visualization tools. We are, for example, a co-developers of the platform nextstrain.org used to track and visualize viral and bacterial evolution.

Possible projects include (i) impact of reassortment/recombination on viral evolution, (ii) evolution of gene content and gene order of bacterial chromosomes or plasmids or (iii) bacterial drug resistance evolution in collaboration with experimental colleagues, or (iv) development of analysis and visualization tools for genomic epidemiology. The scope of the projects is flexible, can be tailored to the applicants interest and skills, and we are open to exciting new ideas.

# What we offer You would have the opportunity to pursue original research in a small, interactive, and

interdisciplinary group that tackles diverse problems in computational biology. We are internationally well connected and collaborate with several other research groups in Basel and in different parts of the world. We have access to state of the art computing facilities, web lab space, and sufficient funding for conference travel and research expenses. Salaries are competitive.

# Whom we are looking for We are looking for a creative and collaborative person with a genuine interest in evolution and with either a

- a degree in physics, applied math, bioinformatics, computer science and strong interest in biology, or - a life science degree and strong quantitative skills

Depending on the project, the following skills will help getting started:

\* experience with next-generation sequencing data  
 \* experience with population genetic models, epidemiological models, or phylogenetic inference  
 \* data visualization and experience with javascript/d3

If you are excited about this opportunity but unsure whether your profile matches what we are looking for, please get in touch.

# Application Please send your cover letter, statement of research interests (max one page), CV, publication list, and contact information of three references as one pdf file to richard.neher@unibas.ch. Please state clearly in your cover letter what your main interests are and how you think it resonates with the work of our group. Reviewing of application will start on Dec 1st and continue until the position is filled.

# Living and working in Basel Quality of life in Basel is one of the highest worldwide. Basel is a very international city and a center of art, music, and research. The city is less than 5km from both France and Germany and an hour and a half from the Swiss Alps.

The Biozentrum of the University of Basel is one of the leading institutes worldwide for molecular and biomedical basic research. It is home to more than 30 research groups with scientists from over 40 countries. Research at the Biozentrum focuses on the areas of Cell Growth & Development, Infection Biology, Neurobiology, Structural Biology & Biophysics and Computational & Systems Biology. With its more than 500 employees, the Biozentrum is the largest department at the University of Basels Faculty of Science. Several other academic institutions are also in the city, including the Friedrich Miescher Institute, the ETH Zurich Biosystems Science and Engineering Department, and the Swiss Tropical Health Institute.

- Richard Neher Biozentrum University of Basel tel: +41

61-20-75834 web: <https://neherlab.org> Richard Neher  
<richard.neher@unibas.ch>

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## BigelowLabs ProtistCellBiology

Bigelow Laboratory for Ocean Sciences is seeking a qualified and highly motivated individual for a postdoctoral research scientist position in the laboratory of Dr. John A. Burns.

**\*Position Details\*** Research will be focused on cell and molecular biology in marine and freshwater protists. Current projects include: 1) Biomineralization and symbioses in the eukaryotic supergroup Rhizaria, including testate amoebae and Radiolaria; 2) Nutritional and immune aspects of a salamander-alga endosymbiosis; and 3) Imaging of phagotrophy related processes and genes across eukaryote diversity. Desired skills include any combination of the following wet-lab skills: animal cell or protist cell culture; experience designing and performing qPCR assays; fluorescence microscopy including live cell time course imaging and immunofluorescence imaging; experience with transgenics in model or non-model organisms including plasmid design and construction, and transfection and/or experience with CRISPR/CAS transformation; experience preparing and handling RNA for qRT-PCR or whole transcriptome analysis; experience preparing and running protein gels and western blots.

There will be opportunities for international collaboration and travel, pursuit of independent funding, and for training in bioinformatics for transcriptomic and comparative genomic analyses if desired. The exact postdoctoral project will depend on personal interest, incoming skills, and desired skills.

**\*Requirements\*** Research will be conducted primarily at Bigelow Laboratory for Ocean Sciences in East Boothbay, Maine. The position is offered for a period of two years. The position has an expected start date by January 1, 2020, but this may be negotiated. Salary will be commensurate with prior experience.

Candidates must have a PhD degree in a relevant field. Excellent written and verbal communication skills and ability to work harmoniously in a collaborative research team are crucial. All offers of employment are contingent upon positive results of a background check.

Due to the rural location of the institute, it is recommended that the candidate be comfortable driving and

have a driver's license (an international driver's license is ok).

**\*Apply\*** Please apply at <https://bigelow.freshteam.com/jobs/WORF10zkiwwY/-postdoctoral-researcher>. You will be asked to supply: Cover letter, Curriculum vitae, and Contact information for three references. In the cover letter, please address: 1) One of the three indicated projects and how your skills will advance research in that area in two or more paragraphs and 2) How research at Bigelow Laboratory would relate to career goals. Please keep the cover letter to a maximum of 2 full pages.

Review of applicants will begin immediately and proceed until the position is filled.

**\*About Midcoast Maine\*** Bigelow Laboratory's state-of-the-art oceanfront campus in East Boothbay is located in scenic Midcoast Maine, perfectly situated to provide access to the very best Maine has to offer. Within a reasonable commuting distance of most major Maine cities, this mid-coast peninsula offers the perfect balance between small town coastal charm and urban accessibility. Our peninsula is home to fishermen and sea captains, marine biologists, nature lovers, botanists and gardeners, artists, merchants, and entrepreneurs. Many non-profit organizations call this region home and work hard to further their missions in support of the arts, seamanship and marine education, conservation, historic preservation, and more. Learn more about the Boothbay Harbor Region here < <https://www.boothbayharbor.com/-relocation/> > .

**\*Bigelow Laboratory for Ocean Sciences is an Equal Opportunity/Affirmative Action Employer.\***

– Dr. John A. Burns Senior Research Scientist Bigelow Laboratory for Ocean Sciences

\*60 Bigelow Drive East Boothbay, Maine 04544  
Main Office Tel: (207) 315-2567; Fax: (207) 315-2329  
Office Phone \*\*207-315-2567 \* \*ext. 304\*  
e-mail [jburns@bigelow.org](mailto:jburns@bigelow.org)

[jburns@bigelow.org](mailto:jburns@bigelow.org)

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## cE3c Portugal Evolution

A 2-year post-doctoral position is available at cE3c, Centre for Ecology, Evolution and Environmental Changes (<http://ce3c.ciencias.ulisboa.pt/>), at the laboratory of Sara Magalhães, within an ERC consolidator grant. The

grant may be extended for an extra year. The candidate is expected to work on ecological and evolutionary implications of the interaction between spider mites and plant defences. We are seeking a candidate that is highly motivated, enjoys working in a group, knows (or will quickly learn) how to independently plan his/her experiments, respects the lab tidiness and appreciates placing his/her research in a general context. To find out more about our research group please visit our website at <https://mitesquad.weebly.com/> Applicants should send their CV to [snmagalhaes@fc.ul.pt](mailto:snmagalhaes@fc.ul.pt). Check <https://ciencias.ulisboa.pt/pt/concursos> for the application and selection procedure. Starting date: flexible (early-middle 2020).

Place: Faculdade de Ciências da Universidade de Lisboa.

Project title: Competition under niche construction (COMPCON)

Funding: ERC Consolidator Grant, 2017-2022.

Sara Magalhães, Assistant Professor, <https://mitesquad.weebly.com/> Centre for Ecology, Evolution and Environmental Changes <http://ce3c.ciencias.ulisboa.pt/> Faculdade de Ciências da Universidade de Lisboa <http://www.fc.ul.pt/> Campo Grande Lisboa researcher ID: <http://www.researcherid.com/rid/B-9673-2012> Sara Magalhaes <[snmagalhaes@fc.ul.pt](mailto:snmagalhaes@fc.ul.pt)>

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## CIBIO Portugal Human Evolutionary Genetics

The Human Evolutionary Genetics group at CIBIO is currently accepting applications to fill two 15 months contracts for PhD researchers to work on the analysis of genomic/linguistic data and on computational modelling aiming at the development of evolutionary and demographic models to infer the demographic history of the Khoe-Kwadi language dispersal, at CIBIO-ICETA-Research Centre in Biodiversity and Genetic Resources, Porto, Portugal.

Preferred candidates must possess a PhD a relevant discipline (e.g. population genetics, computational biology, quantitative linguistics, statistics, bioinformatics, evolutionary genetics), and

- I. Solid background in computational / statistical skills
- II. Previous experience in the field of human evolutionary history and population genetics or linguistics

Please see more details using the link:

<https://cibio.up.pt/open-positions-careers/details/-iceta-2019-93> The applications are formalized at the electronic address [http://www.cibio.pt/?page\\_id=970](http://www.cibio.pt/?page_id=970) with following documents in a digital form, in PDF format:

- i) Curriculum vitae; ii) Motivational Letter; iii) Qualifications Certificate; iv) Other relevant documentation

\*Deadline for application submission is October 30th, 2019.

Jorge Rocha, Principal Researcher

CIBIO - Research Centre in Biodiversity and Genetic Resources Campus Agrario de Vairao, Rua Padre Armando Quintas 4485-661 Vairao, Portugal

Magda Gayà <[magdagaya@gmail.com](mailto:magdagaya@gmail.com)>

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## CIB Madrid Bioinformatics

Postdoc position available in the laboratory Plastic Entropy: biological solutions for global challenges, at the CIB, Madrid, Spain, a multidisciplinary institute with diverse departments and expertise spanning a variety of fields, e.g. molecular and cell biology, structural biology, microbial and system biology, to mention some. The CIB is in the heart of Madrid, in the University Complutense Campus and counts on a vibrant student community. <https://www.cib.csic.es/> The position is addressed to candidates with bioinformatics skills, for computational genome and big data analyses, with an evolutionary interest. The laboratory is focused on biodegradation of synthetic polymers via biological solutions. Our specific interest is centred in the capability of the wax worm (larva of *Galleria mellonella*) to biodegrade polyethylene, one of the most used and most resilient plastic material nowadays For further info <https://doi.org/10.1016/j.cub.2017.02.060> The understanding of the molecular machinery deployed to achieve the biodegradation result requires a multidisciplinary approach, with diverse complementary expertise, and a deep understanding of the insect genome functionality. The knowledge of the evolution of the metabolic pathways that characterize this particular insect is key in the comprehension of the insect behaviour, with its capability of plastic biodegradation. Candidates with a strong background in genome and big data analyses, and high motivation in biotechnology and environmental-oriented projects, please send the CV to Dr. Federica



Bertocchini at: federica.bertocchini@csic.es  
federica bertocchini <federicon@hotmai.com>

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## ClemsonU OralMicrobeEvolution

Clemson.OralMicrobeEvolution

Vincent Richards' lab in the Department of Biological Sciences at Clemson University is accepting applications for a post-doctoral position.

The overarching research theme will focus on the dental microbiome and the relationship between the bacterial and fungal components of this community. Specific questions include how these taxa respond and adapt to this dynamic environment. Operating over numerous time scales, multiple host factors such as diet, health, disease, and host genotype can impact the oral environment and hence are strong evolutionary forces that can shape and select for changes within the community. We are particularly interested in the interplay and co-evolution of bacterial and fungal components of the community and how these processes are impacted by immunosuppression. Multiple omic approaches such as comparative genomics, metagenomics, and metatranscriptomics will be coupled with network analyses to address these questions.

Similar projects focusing on the oral microbiome in general are possible and the postdoc will be free to explore and lead such projects. The postdoc will take a senior position within the laboratory and contribute to the mentoring of graduate and undergraduate research. The candidate should have a strong publication record and a background in microbial community dynamics. Ideally, the candidate should have experience analyzing next-generation sequence data and be versed in Linux/bash. Although desirable, experience with metatranscriptomics and network analyses are not required. The successful applicant will be trained in multiple bioinformatic approaches.

The position is available immediately and review of applications will continue until the position is filled. Up to four years of support are available (with the possibility for extension). The salary is \$50,000/year plus benefits. Applicants should contact Vincent Richards directly at [vpricha@clemson.edu](mailto:vpricha@clemson.edu). Please provide a cover letter (describing research interests, experience, and career goals), a CV that includes links to authored publications, and contact information for three references.

Clemson University is ranked 27th among national public universities and 70th among all national universities by U.S. News & World Report and is located on Lake Hartwell near the Blue Ridge Mountains in beautiful Upstate South Carolina.

Vincent P. Richards, PhD Assistant Professor Department of Biological Sciences Clemson University Clemson, SC 29634 Email: [vpricha@clemson.edu](mailto:vpricha@clemson.edu) Lab website: <http://www.vprichards-lab.com> Vincent Paul Richards <[vpricha@clemson.edu](mailto:vpricha@clemson.edu)>

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## ColumbiaU TuberculosisEvolution

The Department of Epidemiology at Columbia University Mailman School of Public Health in New York City invites applications for a Postdoctoral Research Scientist with interest in infectious disease, genomic epidemiology and evolution. We are recruiting multiple postdoctoral fellows to join a multidisciplinary research group on genomic epidemiology and biology of tuberculosis (TB), Mycobacterium abscessus infections, and antibiotic-resistant Gram-negative bacterial pathogens. Our research questions sit on interface between epidemiology, clinical and pathogen biology to advance understanding, translate knowledge, and ultimately achieve population-level impact on infectious disease epidemics globally. Specific ongoing projects include genome-level phylodynamics of drug-resistant epidemics of TB and other bacterial pathogens, phylogenomic and spatial studies of TB transmission, integration of genomic data for public health disease control priorities, emergent drug resistance on treatment, and molecular genetics of dual beta-lactam activity against *M. abscessus*. The postdoctoral fellow will also have the opportunity to develop an independent, relevant research program.

Collaborators include multiple academic and governmental groups, and active collaborations in South Africa, US, China, Moldova, Brazil, and India. Travel opportunities exist to visit collaborators, study sites, present results at conferences and workshops, and to develop new collaborations. Active funding is primarily through the NIH and the Bill & Melinda Gates Foundation, and other private foundations. This is an excellent opportunity for researchers interested in utilizing novel multidisciplinary methods along with genomic approaches to the epidemiology of infectious diseases, particularly within a global health context.

Applications are invited from doctoral (PhD or simi-



lar) degree holders for a full-time fellowship for 2 year at the outset, with the option to extend. Multidisciplinary candidates that are enthusiastic, creative and motivated with expertise in infectious disease epidemiology, evolutionary genetics, bioinformatics, microbiology, or molecular genetics should apply.

The salary range will depend on qualifications and research experience, includes a full health and benefits package, and potential access to university housing in northern Manhattan. Dedicated and intensive career development work is a prominent component of the position, and potential funding exists for coursework and travel to global collaborating sites.

Eligibility: - Doctorate in one of the following areas: infectious disease epidemiology, microbial population genetics, microbiology and molecular biology skills with a strong bioinformatics component, or a similar discipline - Strong writing and analytical skills, and publication record commensurate with experience - Strong interest in some of the following: infectious disease epidemiology and genomics, evolutionary genetics, bioinformatics, statistical inference, public health - Ability to conduct self-directed research from hypothesis-generating to testing - Ability to interpret and query results and follow independent lines of inquiry that arise - Ability to work with project partners in epidemiology, public health, biology, and statistics, depending on the specific project - Knowledge of one of more common programming languages

Required Applicant Documents: Cover Letter, CV, 2 reference letters, 1 writing sample/publication, and 1-page research statement; all documents in one PDF file; reference letters to be sent directly by referees. To inquire, please email Dr. Barun Mathema (bm2055@cumc.columbia.edu).

koloko@amnh.org

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## ConcordiaU PDFandPhD FishGenomics

One fully-funded 3-year postdoc and two fully-funded PhD positions are available in Dr. Dylan Fraser's laboratory within the Department of Biology, Concordia University, Montreal, Quebec, Canada ([www.dylanfraser.com](http://www.dylanfraser.com)). These positions are associated with a largescale applied research project funded by Genome Canada and Genome Quebec entitled FISHERS: Fostering Indigenous Small-scale fisheries

for Health, Economy and food Security. FISHERS applies genomics tools to sustainable fisheries management and climate change adaptation for Indigenous communities across northern Canada. The postdoc and PhDs will conduct research on Walleye, Lake trout and/or Brook Trout in collaboration with Cree and Den?? communities in northern Canada with co-supervision from Dr. Louis Bernatchez (Laval U.: [www2.bio.ulaval.ca/louisbernatchez/presentation.htm](http://www2.bio.ulaval.ca/louisbernatchez/presentation.htm)), and Dr. Louise Chavarie (University of Glasgow, Scotland; <https://louisechavarie.weebly.com/>) for Lake Trout research. Potential projects include: (i) population structure, local adaptation, genotype-phenotype associations and genotype-climate associations in key northern fisheries; (ii) mixed-stock harvest dynamics and population spatial ecology, and (iii) genomic consequences of size-selective harvesting (Walleye); these represent core research foci of FISHERS but the postdoc and PhD students are encouraged to explore independent lines of inquiry.

Experience required: previous research experience with molecular techniques, population genomics/genetics, bioinformatics, statistics, and assisting with field sample collections. Experience working with fishes is an asset but is not essential.

Start date: January or May 2020. Salary: Postdoc \$50,000 CDN per year for three years, plus benefits; PhD positions \$24,000 CDN per year for four years. Location: Loyola Campus, Concordia University, Montreal.

Concordia U. is an emerging, integrative university, Montreal is an amazing culturally-diverse city (ranked one of the best places in the world to attend university by students themselves), and there are plenty of fantastic things to see and do in and outside of the city! Montreal is also one of the most economically affordable large cities in North America.

Submission process. All documents must be submitted to Dylan Fraser ([dylan.fraser@concordia.ca](mailto:dylan.fraser@concordia.ca)):

One to two (1-2) page cover letter demonstrating fit with one of the positions described above

Current curriculum vitae demonstrating relevant research experience and background

Names/contact information for two references

You can learn more about our lab's research at: [www.dylanfraser.com](http://www.dylanfraser.com) .Please share this announcement with others that might be interested. If you require any additional information, please feel free to contact me.

Louise Chavarie

Weston Post-doctoral fellow University of British

Columbia Biodiversity Research Centre and Zoology Department <http://louisechavarie.weebly.com/> Louise Chavarie <chavarie@ualberta.ca>

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## Czech Republic PhylogenomicsOfParasites

\*Two-year postdoc position: Phylogenomics & population genomics\*

Laboratory of Molecular Ecology and Evolution (Biology Centre, Czech Academy of Sciences and University of South Bohemia, Czechia) has funding

for a Junior Researcher (postdoc) in the fields of phylogenomics & population genomics.

We are looking for an independent junior researcher with interest in evolutionary biology and strong background in bioinformatics and analyses of phylogenetic and population genetic data. Knowledge of Linux/unix and experience with scripting & programming languages (Python, R) and phylogenetic inference using WG data is necessary. Experience with population genomic and genome assembly and annotation pipelines is beneficial. A good publication record is important. The applicant should be able to coordinate a team of 2-3 students and have well-developed communication skills.

\*Job description:\*

This research position will include (mainly drylab) work on two grant funded projects:

1)Phylogenomics (and species diversity survey) of Dicyemida, an enigmatic group of parasites from cephalopods.

2)Population genomics of adaptation in parasites. The project studies an interaction between host specificity, genomic differentiation and adaptation in a freshwater parasite (*Ligula intestinalis*).

On the 1st project, the postdoc will be responsible for designing the research strategy (amplicon sequencing design for species diversity survey, selection of tools for extracting data from wg datasets) and for analyses of obtained data (transcriptome assemblies, amplicon assemblies, mining and filtering genes into matrices, phylogenetic reconstruction). On the 2nd project, the postdoc will provide an assistance with analyses of population level NGS data (whole genome re-sequencing data, RADseq, SNP calling, demographic inference, analysis of selection, etc.).

The postdoc will co-supervise one phd student and will be free to supervise undergrad students if desired (a valuable experience). There is an opportunity to take part in teaching, in field collecting trips and in other popgen projects running in the laboratory (incl. publication output).

\*We offer:\*

We are a relatively young but quickly developing laboratory with interests in evolutionary and ecological interactions between organisms and their environment. We use genetic (increasingly more genomic) data to answer the questions (e.g. <https://youtu.be/xvHSjEi0c44?t=7051>).

We have advanced computing resources available both in-house (> 300 nodes) and via a connection to the national grid (> 20,000 CPUs). The lab collaborates with institutions/labs abroad (e.g. University of Alabama [Kocot lab], University of Illinois [Catchen lab], University of Saskatchewan & Cornell [J.A.Andres]) and we co-organise the biennial Workshop on Population and Speciation Genomics ( <http://evomics.org/2020-workshop-on-genomics-cesky-krumlov-czech-republic/>).

Biology Centre is a dynamic institution with strong international community of junior researchers and an “HR Excellence in Research” awarded institution. It is located in the centre of a university campus. English is the working language at the institution. The city of Ceske Budejovice is a charming historical city, has great outdoors nearby and it is located within easy reach of the capital, Prague, and several cities abroad (Vienna, Linz, Passau).

Funding is guaranteed for 1 year, with extension for another year, based on performance. Salary is 30% above the Czech average income, it is sufficient to cover all necessary living costs with a margin (Czechia is a developed, yet relatively cheap country to live in). Biology Centre offers multiple employee benefits (fully covered health insurance, subsidised lunches, cultural/health programmes, etc.).

In case of questions, enquire using the contact info below.

\*Applications:\*

Applications should be prepared as a single pdf containing:

a CV (with publication list)

a detailed statement of research interests

names and contact information for 3 references.

Applications are welcome before 15 November 2019, sent by email to Associate Prof. Jan Átefka at [jan.stefka@gmail.com](mailto:jan.stefka@gmail.com). Prospective candidates will be

interviewed in early December.

The position can be filled starting 1 January 2020, but will remain open until a suitable candidate has been found.

Jan Âtefka, PhD

Laboratory of Molecular Ecology and Evolution

Institute of Parasitology, Biology Centre, Czech Academy of Sciences

Branisovska 31, Ceske Budejovice, CZECHIA

<https://www.paru.cas.cz/en/> <http://jstefka.info> Jan Stefka <jan.stefka@gmail.com>

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## Eawag Evolutionary Ecosystems Ecology

Eawag, the Swiss Federal Institute of Aquatic Science and Technology, is a Swiss-based and internationally networked aquatic research institute within the ETH Domain (Swiss Federal Institute of Science and Technology). It is committed to the ecologically, economically and socially responsible management of water resources and aquatic ecosystems.

The Department of Fish Ecology and Evolution (FishEc) located in Kastanienbaum (Lucerne) has a vacancy for a Postdoctoral Researcher in Evolutionary Ecosystems Ecology. Applications are sought from individuals with research experience in ecology and evolution. Applicants should have an earned doctorate (or expect to finish their PhD early 2020) in a relevant field of biology, ecology, or environmental science and a strong interest in fish evolutionary ecology, life history, population structure and food webs. Skills in stage-structured and/or ecosystem modelling is especially beneficial for the position.

The postdoctoral researcher will be associated with the Eawag-funded project “Drivers of biomass distributions in aquatic food webs along anthropogenic gradients”. With this project, we will investigate the correlates and drivers of biomass distribution in contrasting food webs that can be arranged along gradients of energy availability, biotic richness and disturbance. We will specifically focus on the role of nutrients, community structure and evolutionary processes, such as evolution of alternative migratory forms, ecotype formation and adaptive radiation and investigate effects of anthropogenic influence on biomass distribution via its effects on evolutionary

diversity. Specifically, we will focus on lake- and stream food webs in Southern Greenland and The European Alps, with additional work on systems in Scandinavia and East Africa. The position includes a field trip to Southern Greenland in the summer 2020.

This is a 24 months postdoctoral position. The position will be hosted by the River Fish Ecology group (<http://www.eawag.ch/en/department/fishec/-main-focus/river-fish-ecology/>) and the FishEc Department (<http://www.eawag.ch/en/department/fishec/>). The project includes collaboration between research groups of Jakob Brodersen, Ole Seehausen, Carlos Melian and Blake Matthews. We aim to do fundamental research on fish ecology and diversity in order to answer current and future applied questions regarding conservation of fish diversity in Swiss lake/river systems. We are aiming at hiring people with complementary skills, who are able to collaborate and take advantage of synergies between research disciplines to produce novel synthesis. Excellent communication and writing skills in English and ability to work in a team are essential.

The work place is at Eawag’s Center for Ecology, Evolution and Biogeochemistry (CEEB) in Kastanienbaum, Lucerne, which besides the Fish Ecology and Evolution Department hosts research groups from the Department Surface Waters - Research & Management and offers a beautiful workplace at the shores of Lake Lucerne, a friendly international working climate and a strong cross-disciplinary research environment. Both departments within CEEB share a common interest in understanding the principles of the functioning of aquatic ecosystems and their susceptibility and adaptability to changing environments, and a common concern for sustainable management of ecosystems and biodiversity. Each department on its own aims at contributing cutting edge science to the development of theory in ecology, evolution and environmental sciences. Building on the synergies that emerge between these fields, the CEEB aspires to contribute to a future synthesis of evolutionary biology and ecosystem science.

Eawag offers a unique research and working environment and is committed to promoting equal opportunities for women and men, independent of ethnicity, and to support the compatibility of family and work. Applications from women and other minorities in ecology are especially welcome. For more information about Eawag and our work conditions please consult [www.eawag.ch](http://www.eawag.ch) and [www.eawag.ch/en/aboutus/working/employment](http://www.eawag.ch/en/aboutus/working/employment).

Applications must be submitted by November 15th 2019 and should include an application letter describing your interests and their relevance to this position, a CV and list of publications, and the names and con-

tact information for three references. The position should optimally start in the beginning of 2020. For further information, please contact Jakob Brodersen (jakob.brodersen@eawag.ch; +41 58 765 22 04).

We look forward to receiving your application through this webpage, any other way of applying will not be considered.

<https://apply.refline.ch/673277/0742/pub/1/-index.html>

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## FreieUniversitt ViraleEvolution

\*\* Postdoc position on the evolution of virus virulence \*\*

A 3-year postdoctoral position (TVL-13) is available with immediate effect at the Institute of Virology of the Department of Veterinary Medicine (Prof. Klaus Osterrieder) and at the Institute of Biology (Prof. Dino McMahon) of the Freie Universität Berlin. The position is part of a research project funded by the Volkswagen Foundation to investigate the evolution of virus virulence under the influence of vaccination.

Responsibilities: Leading and collaborating the research involved in the above-mentioned project.

Prerequisites for an application are a doctoral degree in veterinary medicine or natural sciences (biology, chemistry, biochemistry, etc.) with above-average grades and an interest in independent scientific work.

Knowledge of virology, high-throughput sequencing, analysis of NGS data (bioinformatics) and evolutionary analysis is desired. In addition, we expect a very good command of English.

For informal enquiries about the position, please get in touch with Klaus Osterrieder (no.34@fu-berlin.de) or Dino McMahon (dino.mcmahon@fu-berlin.de).

Deadline for applications: 23rd November 2019

Application documents (CV, 1 page research statement, Publications) should be sent by PDF to the above contacts, or by post to:

Prof. Dr. Klaus Osterrieder Institut für Virologie Robert von Ostertag-Haus - Zentrum für Infektionsmedizin Robert von Ostertag-Str. 7-13 14163 Berlin Germany

Telephone: +49-30-838-51822 Fax: +49-30-838-451847 no.34@fu-berlin.de

“McMahon, Dino Peter” <dino-peter.mcmahon@bam.de>

## 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.

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>

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## GEOMAR Germany MarineComparativeGenomics

3-year Postdoc position in Comparative Genomics of Marine Invertebrates

GEOMAR Helmholtz Centre for Ocean Research Kiel and the University of Kiel (Germany)

Deadline: 30th October 2019

**Job Description:** The position is central to the recently funded collaborative DFG project IMMUBASE that brings together microbiology, genomics, evolutionary biology and immunology (PIs: Dr. Lucia Pita Galan, Prof. Ruth Schmitz-Streit, Prof. Thorsten Reusch). IMMUBASE aims to comparatively characterize the immune systems of basal metazoans to better understand host-microbe interactions. To achieve this goal, the project will obtain chromosomal level de novo genomes of a number of emerging model species (Cnidarians, Ctenophores, Sponges) in collaboration with the newly founded Competence Centre for Genomic Analysis CCGE Kiel. To better understand basal immunity, IMMUBASE will also employ challenge experiments with subsequent RNA-seq analyses as well as population genomic data to identify balancing selection and hence putative immune relevant genes.

**Time and Salary:** The position is for 3 years. The salary depends on qualification and could be up to the class 13 TVöD-Bund of the German tariff for public employees

**More information at:** [ <https://www.geomar.de/en/-service/karriere/job-single-en/article/postdoktorandinstorndokorand-mwd-im-bereich-comparative-genomics-of-marine-invertebrates/> ]

Please forward to your colleagues!

Thank you! Lucía Pita Galán , PhD Staff scientist RD3-Marine Symbioses Unit GEOMAR Helmholtz-Zentrum für Ozeanforschung Kiel Düsternbrooker Weg 20 D-24105 Kiel ( Germany) +49 431 600-4487 Fax: +49 431 600-4482 lpita@geomar.de [www.luciapita.es](http://www.luciapita.es)

Lucia Pita Galan <lpita@geomar.de>

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## IISER-TVM Kerala India EvolEcol

Postdoctoral positions at IISER-TVM, Kerala, India.

Two postdoctoral positions are available at Indian Institute of Science Education and Research Thiruvananthapuram (IISER-TVM; [www.iisertvm.ac.in](http://www.iisertvm.ac.in)) one each in the research groups of Ullasa Kodandaramaiah ([www.vanasiri.in](http://www.vanasiri.in)) and Hema Somanathan (<http://faculty.iisertvm.ac.in/beelab>). The preferred research themes are mentioned below, but applicants are also free to propose projects in other research areas. Both groups work on a variety of model systems, and research is primarily question based, rather than model-system based.

**Ullasa Kodandaramaiah** ([www.vanasiri.in](http://www.vanasiri.in)). Current model systems include butterflies, plants and reptiles. 1) Prey-predator interactions 2) Life-history trait evolution 3) Insect-plant interactions 4) Phenotypic plasticity

**Hema Somanathan** (<http://faculty.iisertvm.ac.in/beelab>). Current model systems include bees, bats, plants and spiders. 1) Behavioral ecology 2) Visual ecology 3) Plant-animal interactions

The postdoc will have the flexibility in designing projects in discussion with Hema or Ullasa, and can involve undergraduate students & interns. In addition the postdoc will have the opportunity to be involved in teaching. There are of course several ongoing projects in both labs that a postdoc can be part of, but selection is based partly on how independent the candidate is, and her/his ability to come up with good research questions.

The IISER-TVM Vithura campus is an excellent place for many kinds of studies in ecology and evolution.

**DEADLINE:** Will be announced on the IISER-TVM website soon. Decisions on the applications are expected to be taken by December 2019.

**SALARY:** Rs. 55,000 per month.

**DURATION:** 2 years (1 year initially, extendable based on performance)

**MODEL of SELECTION:** The formal advertisement will come up on the institute website soon. In the meanwhile, if interested in the position, please get in touch with Ullasa ([ullasa@iisertvm.ac.in](mailto:ullasa@iisertvm.ac.in)) or Hema ([hsoomanathan@iisertvm.ac.in](mailto:hsoomanathan@iisertvm.ac.in)).

LIFE IN KERALA AND THIRUVANANTHAPURAM



(TRIVANDRUM): The picturesque campus (<http://www.iisertvm.ac.in/pages/campus>) is in Vithura, which is ca. 45 km from the coastal city of Thiruvananthapuram. Some people prefer to live on, or near the, campus, while others commute from the city. Thiruvananthapuram is the capital of Kerala, and has a rich cultural heritage. It is within a stone's throw away from world-famous beaches such as Kovalam and Varkala, and lovely backwater tourism areas such as Poovar. Several hill stations (e.g Ponnudi) and wildlife sanctuaries are close by. Being a major medical tourism destination, the city has good medical care facilities. There are several good schools in the city with English as the medium of instruction, and English is widely spoken across the state.

Thiruvananthapuram is a relatively small city, and the cost of living tends to be considerably lower than in bigger Indian cities. A 2-bedroom apartment can be rented for Rs 10,000 - 15,000 per month. There are plenty of options for dining out a meal at a decent local restaurant can start from Rs 50, but a good meal with a drink even in a five-star hotel need not cost more than Rs 1000. Costs for groceries and other daily needs can be looked up on [www.kada.in](http://www.kada.in). Taxis can be hired from Rs 10 per km (with a minimum fare of Rs 50).

ullasa@iisertvm.ac.in

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### KansasStateU DroughtAdaptationGenetics

Two Postdoc positions available to build a genome-phenome map for crop adaptation to water scarcity. Help safeguard global food security and do fun ecological & evolutionary genetics at the same time :)

The Morris lab at Kansas State University (<https://www.morrislab.org>) is seeking postdocs in (1) computational biology and (2) plant genetics. The postdocs will contribute to our mission of understanding and improving crop adaptation to water scarcity. No previous experience with agricultural or crop systems is required, just a strong interest in the global challenge of overcoming water scarcity (<https://www.g2pbridge.org>).

(1) Post Doc (Computational Biology): The postdoc will develop novel computational approaches to understand the genome-phenome map for crop adaptation, and test hypotheses as a part of an interdisciplinary public-private collaboration. The ideal candidate will have experience in modeling, programming, and sta-

tistical analysis, and a commitment to rigorous and creative application of the scientific method. Experience in plant genetics or genomics is preferred but not required. Apply here: <https://careers.k-state.edu/cw/en-us/job/508344/fellow-post-doc> (2) Post Doc (Plant Genetics): The postdoc will conduct field and laboratory experiments to understand the genome-phenome map for crop adaptation, and test hypotheses as a part of an interdisciplinary public-private collaboration.

The ideal candidate will have experience in plant genetics or genomics, and a commitment to rigorous and creative application of the scientific method. Experience in statistical programming is preferred but not required. Apply here: <https://careers.k-state.edu/cw/en-us/job/508346/fellow-post-doc> Geoff Morris Associate Professor, Crop Genetics Department of Agronomy | Kansas State University 3004 Throckmorton Plant Science Center | Manhattan KS, 66506 [gpmorris@k-state.edu](mailto:gpmorris@k-state.edu) | <http://www.morrislab.org> | <http://www.gohy.org> Office: 785-532-3397 | Cell: 312-909-1330 | Skype/Google ID: morris.geoff.p

Geoffrey Morris <[gpmorris@ksu.edu](mailto:gpmorris@ksu.edu)>

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### KBS MichiganStateU GenomicMechanismsOfAdaptation

Postdoctoral position in evolutionary biology available immediately in the Conner lab < <http://jeffreykconner.com/> > at Michigan State University's Kellogg Biological Station. The lab studies mechanisms of adaptation by integrating genetics, genomics, ecology and evolution in the field, greenhouse, and growth chamber, using wild radish and Arabidopsis as model organisms. Research focuses on floral and agricultural weed adaptations as well as fitness effects of duplicate genes. Substantial publication and grant-writing opportunities are available using abundant existing data and resources. Bioinformatic expertise required to analyze existing and new sequence data, including creation of the first reference genome for the radish genus *Raphanus*. Experience with, or a strong interest in, field and greenhouse research also necessary. This is a one-year position, salary \$50,000 with a possibility of extension based on performance and funding. Contact Jeff Conner ([connerj@msu.edu](mailto:connerj@msu.edu)) with questions; apply here < <https://careers.msu.edu/en-us/job/502697/research-associatefixed-term> >. The Conner Lab, Kellogg Biological Station, and Michigan State University are all

committed to fostering a diverse, equitable, and inclusive environment. Jeff Conner W.K. Kellogg Biological Station Michigan State University 3700 East Gull Lake Drive, Hickory Corners, MI 49060 e-mail: connerj@msu.edu @JeffreyKConner

“connerj@msu.edu” <connerj@msu.edu>

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## Lisbon Madagascar Endangered Species

Dear evoldir members, Post-doc opportunity in Lisbon (Instituto Gulbenkian de Ciência)

(Current deadline: 31/10/2019 to be extended to 31/12/2019),

we are looking for an enthusiastic post-doc interested in the use of genetic and genomic data to reconstruct the demographic history of species. The candidate will work on questions related to endangered species (with a focus on Madagascar), human evolution or domestication. The questions we ask are related to the importance of population structure (connectivity, habitat fragmentation) and genomic diversity: how do ancient climatic events influence the genome of present-day species? Can we differentiate between the genomic signature of population size changes and changes in connectivity? Should we represent recent human evolution as changes in connectivity or changes in population size change? These are some of the questions that we try to ask within the DISPO project (Demographic Inference in Structured Populations). Our group has been working on the concept of IICR (inverse instantaneous coalescence rate, Mazet et al., 2016 Heredity), which can be used to address these questions. The candidate will thus learn to use the IICR but could or better should bring his/her own experience to make progress in these issues. Enthusiasm and critical mind are crucial.

The formal call can be found here: [http://www.igc.gulbenkian.pt/-mediaRep/igc/files/uploads/recruitment/-2Final\\_Edital\\_Contrata\\_ao\\_Doutorados\\_EN\\_LChikhi\\_2019\\_10\\_23.pdf](http://www.igc.gulbenkian.pt/-mediaRep/igc/files/uploads/recruitment/-2Final_Edital_Contrata_ao_Doutorados_EN_LChikhi_2019_10_23.pdf)

Interested candidates should contact me for questions. The current deadline is 31/10/2019, to be extended to the 31/12/2019. Lounes Chikhi

“Lounes Chikhi (Univ Toulouse)” <lounes.chikhi@univ-tlse3.fr>

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## LMU Munich Butterfly Evolution

We invite applications for an ERC funded postdoctoral research position to study divergence in brains and behaviour in *Heliconius* butterflies with Dr Richard Merrill's research group at Ludwig-Maximilians-Universität (LMU) Munich. The project will run in close collaboration with Dr Stephen Montgomery at the University of Bristol, with project partners at Universidad Regional Amazónica (Ecuador) and Universidad del Rosario (Colombia). The position is funded by an ERC starting grant awarded to Dr Merrill, and is initially available for 2 years, with a further 2 years of funding available dependent on progress and interests. The position would be available at the earliest from February 2020.

The postdoc will focus on the evolution and genetic basis of differences in neuroanatomy and associated behaviours between divergent *Heliconius* taxa. The major aims of the position are to i) develop and execute assays of olfactory and visual sensitivity and integration using behavioural experiments, ii) quantify heritable variation in neuroanatomy between populations, iii) determine the behavioural effects of intermediate traits in interspecific hybrids. The postdoc will also determine whether divergent behavioural and neuroanatomical phenotypes are functionally linked by assaying interspecific hybrids. By combining these data with genomic techniques the researcher will then investigate the genetic basis of shifts in brain and behaviour. The successful candidate will be required to spend substantial periods in the tropics (predominantly Ecuador), which will require excellent project management skills and considerable self-motivation.

Applicants should have a PhD, completed or completion imminent, in evolutionary biology/genetics, sensory biology, neuroethology, animal behaviour, or a related field. Experience of managing animal stocks and conducting behavioural analyses in insects would be desirable. Candidates are expected to work collaboratively, within the group and across the community more generally, and to take an active role in the supervision of students and management of insectaries. Enthusiasm, determination and the capacity to work independently are essential.

LMU is recognized among Europe's premier academic and research institutions, being consistently ranked among the top Universities worldwide. Within

the Division of Evolutionary Biology (<http://www.evol.bio.lmu.de>), the postdoctoral researcher will be part of vibrant international communities of scientists. In addition, the researcher will join a collaborative and driven community of Heliconius biologists. The working language of the lab and the Division of Evolutionary Biology is English.

Further information can be found at (<https://richmerrill.wordpress.com>), and questions should be directed to Richard Merrill ([merrill@bio.lmu.de](mailto:merrill@bio.lmu.de)) Applications, made up of a single pdf (file name = candidates surname), should include a current CV, letter of motivation and names and contact details of two referees. Please send applications by email (subject: 'Brain post-doc') to Richard Merrill ([merrill@bio.lmu.de](mailto:merrill@bio.lmu.de)) before the deadline of 30 November 2019.

Dr. Richard Merrill Emmy Noether Group Leader

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

@dickmerrill <http://www.evol.bio.lmu.de/research/-merrill/index.html>

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## MaxPlanck Evolbio ModellingReciprocity

Our group explores under which conditions individuals cooperate. To this end, we translate social interactions into mathematical games. These games can then be explored analytically, with computer simulations, and with behavioral experiments.

We are looking for motivated researchers to join us.

Post Doc Position (2 years) Modeling reciprocity in changing environments

Typical models of reciprocity assume that individuals interact in the very same game over and over again. In such setups, already simple strategies like "Tit-for-Tat" suffice to enforce cooperation. However, in many natural applications, such as the management of natural resources, individual actions today can alter the entire strategic situation in future rounds. Such scenarios with environmental feedback can be described by stochastic games. The project aims to characterize how environmental feedback affects cooperation, and what strategies the individuals adopt.

Applicants should have a strong quantitative back-

ground; ideally they already have experience in using classical or evolutionary game theory to analyze social behavior. The position requires a sound mathematical background, programming skills (Matlab, Python,...), and experience in scientific writing. Experience with behavioral experiments is an advantage, but not necessary.

Working environment The Max Planck Research Group "Dynamics of Social Behavior" has been established in October 2019, and is led by Dr. Christian Hilbe. The group is a part of the Max Planck Institute for Evolutionary Biology in Plön, Germany. The institute has three departments (Evolutionary Theory, Microbial Population Biology, Evolutionary Genetics) and several additional research groups. It hosts several workshops per year and continuously welcomes international short-term and long-term visitors, creating a stimulating and positive research environment. In addition, the research group maintains strong collaborations with external researchers, including researchers from Harvard University, IST Austria, and the University of Exeter.

Plön is a small town close to the Baltic Sea, embedded into a beautiful landscape with numerous lakes. The area provides ample opportunity for free time activities such as swimming, canoeing, or biking in a stunning environment. The cities of Kiel and Lübeck (≈200,000 inhabitants) are only half an hour train ride away. Hamburg (Germany's second largest city) can be reached within 1.5h by train.

Application Interested students and Post Docs should send their application (motivation letter, CV, copies of certificates, contact details of two references) by email to [hilbe@evolbio.mpg.de](mailto:hilbe@evolbio.mpg.de). Please use the code PostDoc2019 in the subject line.

The Max Planck Society strives for gender and diversity equality. We welcome applications from all backgrounds. The Max Planck Society is committed to employing more disabled individuals and especially encourages them to apply. The Max Planck Society seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.

For further questions, please get in contact with Dr. Christian Hilbe. The application deadline is December 15, 2019. However, the positions will remain open until filled by qualified candidates.

Contact: Dr. Christian Hilbe Research Group Dynamics of Social Behavior Max Planck Institute for Evolutionary Biology, Plön, Germany Website: [web.evolbio.mpg.de/~hilbe](http://web.evolbio.mpg.de/~hilbe) Email: [hilbe@evolbio.mpg.de](mailto:hilbe@evolbio.mpg.de)

Christian Hilbe <hilbe@evolbio.mpg.de> Christian Hilbe <hilbe@evolbio.mpg.de>

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## MaxPlanckInstitute EvolutionaryGenomics

The Hiller Lab at the Max Planck Institute in Dresden, Germany, is looking for an ambitious Postdoc to work on comparative genomic analysis of bats and other mammals.

**Project description:** The postdoc will utilize publicly-available genomes of numerous mammals as well as newly-sequenced genomes of several bats to discover the genomic basis of interesting phenotypic differences between these species. The postdoc will apply and further develop our genomics methods, and analyze results by integrating biomedical knowledge and generated functional genomics data. Promising candidate genes will be tested experimentally, either by the Postdoc or in collaboration. Funding is according to the German TVÖD scale and available for at least 3 years.

**Our Lab:** We combine computational biology, comparative genomics and experiments to investigate how nature's fascinating phenotypic diversity evolved and how it is encoded in the genome. On the computational side, we align and annotate genome assemblies [1-3], develop and apply comparative genomic methods to discover key differences in genes and regulatory elements [4-9], and use statistical approaches to associate genomic to phenotypic differences [10,11]. On the experimental side, we use RNA-seq, ATAC-seq, functional assays and CRISPR-Cas9 to reveal the molecular function of genomic regions and to test causality between genomic and phenotypic differences [12,13]. Our group is part of the Bat1K project (<https://bat1k.ucd.ie/members/>) that aims at generating reference-quality genomes of all bats.

The lab is based at the Max Planck Institute of Molecular Cell Biology and Genetics (MPI-CBG) and we are jointly affiliated with the Max Planck Institute for the Physics of Complex Systems, both in Dresden. Both institutes are highly interactive and interdisciplinary workplaces, provide an international atmosphere with English as working language and access to cutting-edge computational and experimental infrastructure and facilities. The MPI-CBG was awarded one of the "Best Places To Work for Postdocs" in 2011.

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

**How to apply:** If interested, please email (i) your CV including publication list and contact information for at least two references and (ii) a summary of previous research experience (max 1 page) to Michael Hiller (hiller@mpi-cbg.de). Further information: <https://www.mpi-cbg.de/hiller> The Max Planck Society strives for gender and diversity equality. We welcome applications from all backgrounds. Application deadline is November 30th 2019. The position is available immediately and the search continues until the position has been filled.

**Relevant recent publications:** 1. Nowoshilow S, et al. (2018). The axolotl genome and the evolution of key tissue formation regulators. *Nature* 554: 50-55. 2. Roscito JG, et al. (2018). The genome of the tegu lizard *Salvator merianae*: combining Illumina, PacBio, and optical mapping data to generate a highly contiguous assembly. *Gigascience* 7. 3. Sharma V, Hiller M (2017). Increased alignment sensitivity improves the usage of genome alignments for comparative gene annotation. *Nucleic Acids Res* 45: 8369-8377. 4. Sharma V, et al. (2018). A genomics approach reveals insights into the importance of gene losses for mammalian adaptations. *Nat Commun* 9: 1215. 5. Sharma V, et al. (2018). Loss of RXFP2 and INSL3 genes in Afrotheria shows that testicular descent is the ancestral condition in placental mammals. *PLoS Biol* 16: e2005293. 6. Jebb D, Hiller M (2018). Recurrent loss of HMGCS2 shows that ketogenesis is not essential for the evolution of large mammalian brains. *Elife* 7: e38906. 7. Florio M, et al. (2018). Evolution and cell-type specificity of human-specific genes preferentially expressed in progenitors of fetal neocortex. *Elife* 7: e32332. 8. Huelsmann M, et al. (2019). Genes lost during the transition from land to water in cetaceans highlight genomic changes associated with aquatic adaptations. *Science Adv* 5: eaaw6671. 9. Hecker N, et al. (2019). Convergent gene losses illuminate metabolic and physiological changes in herbivores and carnivores. *PNAS* 116: 3036-3041. 10. Prudent X, et al. (2016). Controlling for Phylogenetic Relatedness and Evolutionary Rates Improves the Discovery of Associations Between Species' Phenotypic and Genomic Differences. *Mol Biol Evol* 33: 2135-2150. 11. Langer BE, et al. (2018). REforge Associates Transcription Factor Binding Site Divergence in Regulatory Elements with Phenotypic





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## MaxPlanck Symbiosis

The Max Planck Research Group on Mutualisms offers a Postdoctoral Fellowship in microbial symbiosis, evolutionary genomics and developmental biology.

Housed in the Max Planck Institute for Developmental Biology, the Research Group aims to elucidate the molecular basis behind the establishment of host-microbe symbioses, and to describe the developmental profiles contributing to their persistence. Contextualized through our work on leaf beetles and their pectinolytic mutualists, and by leveraging a broad range of methodologies, our aim is to characterize these partnerships across multiple biological scales.

### OUTLOOK:

Central to our work are the questions of why symbioses form and how they are maintained. We seek an outstanding and highly independent candidate to join the laboratory as a postdoctoral research fellow. The ideal candidate will apply a combination of computational and experimental approaches to characterize the molecular underpinnings behind the establishment of specialized symbioses in insects. Specifically, we are interested in how symbionts are integrated into their hosts' developmental cycle, and the regulatory and evolutionary implications of long-term coevolution between host and microbe. The candidate is expected to apply her/his expertise in molecular biology, genomics, transcriptomics, proteomics and/or high-resolution microscopy to formulate hypothesis-driven research and participate in collaborations with other members of the group.

The Research Group is part of a collaborative environment that is equipped with state-of-the art infrastructure and a highly collegial community. With access to excellent core facilities within the Institute for Developmental Biology (including platforms for microscopy, proteomics, and metabolomics, and sequencing and high-performance computing facilities), the applicant will be in a position to develop and pursue independent multidisciplinary questions, consistent with the dynamic research environment in Tübingen.

Applicants should have a doctoral degree in genomics, bioinformatics, developmental biology, microbiology, or a related field. Prior research experience in large-scale sequence data analysis, bioinformatics, immunohistochemistry, and RNA interference are desirable. We offer a stimulating environment, a tractable study system, and the opportunity to combine a number of approaches to better understand the intricacies of host-microbe symbioses.

Expected start date in position: 2020, flexible. Contract length: 2 years, renewable

### APPLICATION:

A completed application includes emailing the following to Dr. Hassan Salem ([salemh@si.edu](mailto:salemh@si.edu)):

1. A motivation letter, describing how your past experiences will inform your future research in the group. Articulating concrete questions, hypotheses and/or approaches is highly encouraged.
2. CV, including a list of publications.
3. Contact information for three references familiar with your background and training.

Please include all the materials in a single .pdf file. Applications are due on December 10th, 2019.

Additional information: [www.mutualisms.net/-opportunities](http://www.mutualisms.net/-opportunities) Hassan Salem, Ph.D. National Museum of Natural History Department of Entomology 10th St. & Constitution Avenue, Washington D.C. 20560 [salemh@si.edu](mailto:salemh@si.edu) ; [hassan.s.salem@gmail.com](mailto:hassan.s.salem@gmail.com) [www.mutualisms.net](http://www.mutualisms.net) SalemH@si.edu

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## MBL WoodsHole EvolutionBacteria

Position Summary: The MBL is seeking a candidate for the position of Postdoctoral Scientist in the laboratory of Dr. Blair Paul to investigate accelerated protein evolution in aquatic bacteria. The lab uses computational and molecular tools to study processes that diversify microbial genes and to understand the functional importance of hypervariable proteins. To this end, the prospective research will involve a synergistic combination of experimental biology and bioinformatics to investigate genome variation and protein evolution/optimization in microorganisms and their viruses. The ideal candidate will bring expertise in molecular biology and microbial genetics, which will be complemented with training in genome bioinformatics through this postdoc experience.

Additional information: The position is for one year with anticipated extension to 2+ years, contingent on



performance. For more information about MBL and living on Cape Cod, please visit: <https://www.mbl.edu/hr/employment/our-community/>. Basic qualifications: A Ph.D. in biology, microbiology, molecular biology, or a related field is required.

Preferred qualifications: Experience in the following areas is desirable: microbiology (including isolation or cultivation from environmental populations), molecular techniques (especially bacterial or archaeal genetics), or protein biochemistry.

Instructions: Please apply on the MBL website and provide the following required documents: (1) a cover letter describing your interests, skills, and prior research experience, including any specific experience with the job responsibilities listed above; (2) a curriculum vitae/resume; and (3) the names and contact numbers of three persons who can be contacted for letters of reference, at least one of whom must have acted as your supervisor in a previous research position. <https://recruiting.ultipro.com/MAR1033MBL/JobBoard/4c3007c3-6354-41de-a13f-d95be60d91e9/OpportunityDetail?opportunityId=-370fea8b-b45d-4f17-a6ee-788b6086bcc9> Jennifer Larkum <jlarkum@mbledu>

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## MIZ Gdansk DolphinEvolutionaryGenomics

Dear EvolDir,

Applications are now open for a post-doctoral position in dolphin evolutionary genomics, at the newly established Cetacean Ecology and Evolution Research Group led by Dr. Andre E. Moura. The position is available for 2 years and 9 months, and is expected to start on the 3rd of February 2020. The research group is based at the Research Station of the Museum and Institute of Zoology (MIZ), Polish Academy of Sciences in Gdańsk, a vibrant city located on the shores of the Baltic Sea surrounded by areas of natural beauty, with an inclusive atmosphere and rich history. The group maintains strong links with the main research facilities of the MIZ in Warsaw, and research visits to the Warsaw location may be required. The Research Station also hosts groups working on canid genomics and avian immunogenetics.

The post-doctoral assistant will have expertise in bioinformatics, with background (BSc or MSc degree) in bioinformatics, computer science, systems biology or

other fields relevant to the project, and a PhD degree (awarded or to be awarded soon) in a relevant area. The PhD degree should have been awarded no longer than 7 years before the start of employment. A list of required skills can be seen at the end of this message.

To apply, the following documents should be sent to Andre Moura at [avmoura@miiz.waw.pl](mailto:avmoura@miiz.waw.pl) no later than 27.11. 2019: 1. Copy of a PhD certificate 2. Curriculum vitae including a publication list, with the following statement provided at the end and signed: "I give my consent to the processing of personal data provided in my application documents by the Museum and Institute of Zoology PAS for the purpose of the recruitment process, pursuant to the Personal Data Protection Act of 10 May 2018 (Journal of Laws 2018, item 1000) and in agreement with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation; L 119 from 04.05.2016)".

IMPORTANT: Applications that do not include this statement won't be considered.

3. Motivation letter (maximum one page) 4. A copy of one research paper to be evaluated in the recruitment process 5. Contact details of two persons who can be contacted for references.

The interviews of shortlisted candidates will take place between 2 and 6 of December at the Research Station of the Museum and Institute of Zoology PAS in Gdańsk-Górki Wschodnie. A Skype interview can be arranged. The candidate selection is expected to be completed by 20 December 2019. Informal inquiries can also be addressed to Andre Moura.

Essential skills: 1. Excellent knowledge of Linux/Unix environment; 2. Proficiency with at least one coding language (e.g. Python, Perl); 3. Experience with processing NGS data; 4. Good organisational skills; 5. Experience with large databases; 6. Ability to work independently and to communicate with a multi-disciplinary team;

Desirable skills: 7. Experience with analysing whole-genome datasets, aligning to reference genomes, SNP detection; 8. Experience with software for evolutionary genomic analyses; 9. Experience with online genomic databases; 10. Good understanding of natural selection theory; 11. Good understanding of mammalian immune system; 12. Experience of working in an international team.

Research environment The research at the MIZ is focused on a broad range of themes in animal biology, including systematics, biogeography, evolutionary biol-

ogy, ecology and population genetics. Andre Moura's research group is part of the Laboratory of the Molecular and Biometric Techniques led by Prof. Wieslaw Bogdanowicz, grouping researchers focused on population genetics, phylogeography and evolutionary genomics of a broad range of animal taxa. MIZ laboratories contain modern equipment for genomic analyses, including Pacific Biosciences RSII long-read sequencer and Illumina MiSeq System. The state-of-the-art ancient DNA laboratory carries out work on mammalian palaeogenetics. The Museum's zoological collection is among the largest and most valuable in Europe.

Andre Moura <avmoura@gmail.com>

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### MonashU Melbourne MosquitoEvolution

The Vector and Pathogen Genomics group at the Institute of Vector-Borne disease at Monash University is looking for a skilled postdoctoral Research Fellow to investigate genomic rearrangement and mobile element insertion in *Aedes aegypti* and its effect on gene flow in wild populations. As well as being a fascinating aspect of genome evolution, this is also a subject of prime interest to the work of the World Mosquito Program and their global network of Wolbachia-based interventions into dengue and Zika transmission.

In our group we apply omics tools to vectors, viruses and parasites in order to better understand disease transmission and develop tools for disease surveillance and control. Specific interests of the group include population structure and speciation in mosquito vectors, pathogen diversity and relatedness, pathogen-vector interactions and genomic epidemiology.

The role would suit a computational biologist looking to work in an important field of infectious disease research, or a skilled dipteran biologist who would like to pursue a postdoc in a computational field. Researchers with previous experience in statistical / population genetics or genomic evolution in insect species are encouraged to apply. It will be based in the highly livable city of Melbourne and relocation/visa costs will be covered.

Full ad and application details here: <https://jobs.sciencecareers.org/job/504783/research-fellow/> – Seth Redmond - Senior Research Fellow, Institute for Vector Borne Disease, Monash University seth.redmond@monash.edu | @snredmond Monash Uni-

versity | 12 Innovation Walk | Clayton VIC 3800 Australia <https://www.monash.edu/ivbd> Seth Redmond <seth.redmond@monash.edu>

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### MonashU WorldMosquitoEvolution

The Vector and Pathogen Genomics group at the Institute of Vector-Borne disease at Monash University is looking for a skilled postdoctoral Research Fellow to investigate genomic rearrangement and mobile element insertion in *Aedes aegypti* and its effect on gene flow in wild populations. As well as being a fascinating aspect of genome evolution, this is also a subject of prime interest to the work of the World Mosquito Program and their global network of Wolbachia-based interventions into dengue and Zika transmission.

The role would suit a computational biologist looking to work in an important field of infectious disease research, or a skilled dipteran biologist who would like to pursue a postdoc in a computational field. Researchers with previous experience in statistical / population genetics or genomic evolution in insect species are encouraged to apply. It will be based in the highly livable city of Melbourne and relocation/visa costs will be covered.

Full ad and application details here: <https://jobs.sciencecareers.org/job/504783/research-fellow/> – Seth Redmond - Senior Research Fellow, Institute for Vector Borne Disease, Monash University seth.redmond@monash.edu | @snredmond Monash University | 12 Innovation Walk | Clayton VIC 3800 Australia <https://www.monash.edu/ivbd> Seth Redmond <seth.redmond@monash.edu>

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### NewYorkU PlantPopulationGenomics

#### POSTDOCTORAL SCIENTIST POSITIONS

Evolutionary Genomics of Rice

Center for Genomics and Systems Biology

New York University

New York, New York

The Purugganan Laboratory has an opening for post-

doctoral research scientists to work on evolutionary genomics of rice at New York University. The research projects focus on population genomics of the evolution and spread of rice, and identifying genes associated with environmental adaptation in this crop species. Work may also include analyzing genome sequences from herbarium specimens. Candidates should have a Ph.D. with good bioinformatic and/or population genomic analyses skills. Candidates should have a strong record of research productivity, and able to work semi-independently.

The position is based in the NYU Center for Genomics and Systems Biology, in downtown Manhattan and will be part of a thriving research community that includes colleagues working on a broad range of topics. The pay is competitive, and starting dates are flexible.

Interested candidates should send a letter of interest and CV to Michael Purugganan, mp132@nyu.edu and also apply at <https://apply.interfolio.com/68183>

EOE/AA/Minorities/Females/Vet/Disabled/Sexual Orientation/Gender Identity Employer

#### Qualifications

A Ph.D. and/or experience in population and/or evolutionary genomics.

– Michael Purugganan

Silver Professor of Biology Center for Genomics and Systems Biology 12 Waverly Place New York University New York, NY 10003 Tel. (212) 992 9628

Web: \*<http://as.nyu.edu/biology/directory.michael-purugganan.html> < <http://as.nyu.edu/biology/-directory.michael-purugganan.html> >\*

Michael Purugganan <mp132@nyu.edu>

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## Norwich UK GenomicsBioinformatics

Postdoctoral Genome Biologist and Bioinformatician (Single Cell Eukaryotes)

The Earlham Institute (EI) based in Norwich, UK is seeking to appoint a Postdoctoral Genome Biologist and a Bioinformatician to lead the analysis of the protist genome data from the Darwin Tree of Life project.

The Earlham Institute is a research institute focused on exploring living systems by applying computational science and biotechnology to answer ambitious biological

questions and generate enabling resources.

These exciting positions form part of the Darwin Tree of Life Project to provide high quality genome assemblies for all eukaryotic species in the British Isles. EI, along with the University of Exeter, will be leading the analysis of protists (single celled eukaryote) genomes. Protists are often referred to as 'biology's dark matter' as there is so little known about their biology and biodiversity. There are potentially millions of species, yet very few have been described. The project aims to pilot new methods to sample protist biodiversity in the UK and use comparative genomics tools to study the ecology and biology of these enigmatic organisms.

#### Genome Biologist:

This role will analyse single cell and metagenomic datasets to understand species biodiversity and niche adaptation to different environments and infer species interactions from co-occurrence data. They will also undertake phylogenetic analyses to position new species in the tree-of life and analyse annotated draft genomes to identify lineage specific gene sets and infer gene function using phylogenetic profiling methods.

The ideal candidate will have a PhD in biology or a related subject and a good understanding of bioinformatics methods. They will have experience of transcriptomics, genomics data analyses and knowledge of the Unix computing environment.

#### Bioinformatician:

This role will develop computational methods and pipelines to support genome assembly, annotation and data analysis of single celled eukaryotes. Apply tools for single cell genomics and metagenomics analysis to datasets from short read and long read sequencing technologies; assess data arising from novel experimental techniques.

Applicants should possess a PhD or equivalent experience in computational biology, computer science or bioinformatics. They should have experience of large-scale data analysis, a good understanding of bioinformatics tools and the ability to programme in at least one of the following languages: Python (preferable), Perl, Java, C++, R.

#### Additional information:

Salary on appointment will be within the range 31,625 to 38,575 per annum depending on qualifications and experience. Both posts are full time with the Postdoctoral Genome Biologist contract for 3 years and the Bioinformatician contract for 30 months.

Interviews will be held on 4th and 6th December 2019.

For further information and details of how to apply, please visit our web site <http://jobs.earlham.ac.uk/> or contact the Human Resources team on 01603 450462 or [nbi.recruitment@nbi.ac.uk](mailto:nbi.recruitment@nbi.ac.uk) quoting reference 1003786 for the Postdoctoral Genome Biologist role or 1003777 for the Bioinformatician role.

As a Disability Confident employer, we guarantee to offer an interview to all disabled applicants who meet the essential criteria for this vacancy.

The closing date for applications will be 17th November 2019.

Many thanks,

Steph

Stephanie Coker HR Advisor (Recruitment) Human Resources

NBI Partnership Colney Norwich NR4 7UH

Internal Extension: 2149 Direct Line: 01603 450149

“Stephanie Coker (NBI)” <[Stephanie.Coker@nbi.ac.uk](mailto:Stephanie.Coker@nbi.ac.uk)>

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## PasteurInst EvolutionAntibioticResistance

A postdoc position for a motivated and talented post-doctoral researcher is available in the Microbial Evolutionary Genomics unit (head: Eduardo Rocha) of the Pasteur Institute, Paris, France. Our lab has been at the forefront of the study of genome evolution and mobile genetic elements (MGE) using comparative genomics and now aims at developing original work on the evolution and spread of antibiotic resistance. This position is funded by the Inception program, the Institut Pasteur and the Fondation Recherche Médicale.

**Topic.** The project aims at identifying and characterizing novel determinants of antibiotic resistance in enterobacteria (and placing them in meaningful evolutionary contexts). It will be done in tight collaboration with experimental biologists making functional studies (labs Mazel, Glaser, Barras at Pasteur) and biomathematicians developing novel analytic methods (Achaz, Lambert at Collège de France). The project involves the use of genomic, functional, and epidemiological data.

**Representative publications:** Oliveira, Nature Comm, 17; Cury, MBE, 18; Rendueles, PLoS Gen, 17; Duval, PNAS, 18; Clerissi, Nature Comm, 18.

**Profiles.** Young researchers with recent PhDs in do-

mains relating to bacterial evolution and genomics with some computational or quantitative background, including programming skills (shell, R, and/or Python), and experience in large-scale sequence analysis. A taste for collaborations and the ability to discuss with a variety of researchers are strictly necessary.

**Conditions.** The position is funded by the PIA Inception, the Fondation Recherche Médicale and the Institut Pasteur. The salary corresponds to the standard in France (2100 euro to 2600 euro after tax, depending on experience), including extended health coverage. The contract will be for 24 months, eventually renewable. The position is available from January 2020, but the exact starting date is negotiable (within the first semester of 2020).

**Application:** Send a single pdf document with a detailed CV (2-3 pages, with lists of publications, presentations, and computational skills), a cover letter explaining your research interests, projects, the motivation to join our laboratory (1-2 pages), and the names and contacts of three references who we'll contact to obtain advices on your application.

Materials should be emailed as a single PDF file to the principal investigator Eduardo Rocha ([erocha@pasteur.fr](mailto:erocha@pasteur.fr)), who can be reached for informal inquiries about the project and the unit (<https://research.pasteur.fr/en/team/microbial-evolutionary-genomics/>).

Eduardo Rocha <[erocha@pasteur.fr](mailto:erocha@pasteur.fr)>

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## Pittsburgh PlantEvolution

Postdoctoral position in Plant evolutionary ecology University of Pittsburgh

Postdoctoral position on sexual dimorphism and gene expression changes in response to different sex chromosomes in the lab of Dr. Tia-Lynn Ashman, as a part of a collaborative NSF-funded project with Dr. Aaron Liston examining functional and genomic consequences of sex chromosome evolution.

The postdoc will assess consequences of sex chromosome turnover for sexual dimorphism in functional traits, abiotic stress tolerance, species interactions, and gene expression by analyzing reproductive and vegetative QTLs and transcriptomes from several genetic linkage mapped families. The postdoc will ultimately link these to processes driving sex chromosome turnover events as part of



the overall project using the octoploid wild strawberry (*Fragaria*) a model system with young homomorphic ZW sex chromosomes (Tennesen et al. 2018 PLOS Biology <https://doi.org/10.1371/journal.pbio.2006062>).

Responsibilities include the establishment and characterization of QTL mapping populations, collection and analysis of data for genetic maps, phenotypic, species interaction and gene expression analyses, and the preparation of manuscripts for publication.

Position affords opportunities for training in QTL and gene expression studies and in undergraduate mentoring, scientific outreach, and the design and implementation of allied projects tailored to the skills and interests of the postdoc.

An ideal candidate is 1) evolutionary-minded with complementary skills, willingness to cross-train and collaborative spirit, 2) has background in evolutionary ecology, population biology or population genomics, plant biology and 3) desire to expand expertise in quantitative genetics, genetic mapping, gene expression, functional ecology or species interactions.

Position is for three years and will be based in the Department of Biological Sciences at the University of Pittsburgh, Pittsburgh, PA. Start date is negotiable, but expected early 2020.

TO APPLY: Please send a CV and a cover letter describing your experience and interests to [tial1@pitt.edu](mailto:tial1@pitt.edu) along with the names and contact information for three referees. Review of applications will commence immediately and continue until filled.

Dr. Tia-Lynn Ashman Distinguished Professor of Ecology & Evolution Department of Biological Sciences University of Pittsburgh Pittsburgh, PA 15260-3929 412-624-0984 <http://www.pitt.edu/~tia1/> "Ashman, Tia-Lynn" <[tial1@pitt.edu](mailto:tial1@pitt.edu)>

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## PurdueU GeneticSurveillance PopulationModeling

Postdoctoral Position, Purdue University Predators and Integrated Deer Population Modeling with Robert K. Swihart and J. Andrew DeWoody

Interested and qualified candidates are invited to apply for a postdoctoral position at Purdue University. We anticipate 1.5 years of postdoctoral support (\$47,500/year plus benefits) from the Indiana Department of Natu-

ral Resources and seek applicants interested in leveraging this support with 1.5 additional years of support from an annual competition for Purdue Postdoctoral Scholars in Natural Resources sponsored by our home department. Details of the departmental program and application process (application deadline: 24 October) can be found at <https://ag.purdue.edu/fnr/Pages/positionPostDocs.aspx>. We seek to complement and extend our ongoing research efforts with respect to deer population ecology by addressing the potential impact of predators (coyotes, bobcats, dogs) on fawn recruitment using samples of predator hair and scat collected noninvasively from 3 regions of Indiana. We will use DNA-based approaches to determine donor species, sex, unique DNA profile and the proportion of predator scat samples that contain deer DNA. These data will inform spatial capture-recapture models to estimate predator density, and possibly occurrence. Opportunities also exist to estimate coyote abundance via statistical population reconstruction using images from >350 camera traps and coyote age-at-harvest data. Ultimately, data on predators will be incorporated into integrated population models of deer in the state. The successful candidate will contribute to both genetic surveillance and population modeling aspects of the project.

Applicants should possess a Ph.D. before the May 2020 start date, exhibit evidence of appropriate genetic and statistical modeling expertise, and a record of productive scholarship. Interested parties should send a CV and statement of interest to Rob Swihart at [rswihart@purdue.edu](mailto:rswihart@purdue.edu) and Andrew DeWoody at [dewoody@purdue.edu](mailto:dewoody@purdue.edu) for initial screening. Questions about the project also may be directed to either Rob or Andrew.

Purdue University is an equal opportunity/equal access/affirmative action employer fully committed to achieving a diverse workforce.

[dewoody@purdue.edu](mailto:dewoody@purdue.edu)

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## Roscoff France DeepSeaMolluscEvolution

Postdoctoral research position in larval shell biogeochemistry and mollusc population genetics at the Roscoff biology station (France).

———— We are looking for a Postdoctoral Research Associate to investigate population connectivity in a



deep-sea hydrothermal vent gastropod using elemental fingerprinting, possibly in combination with genetic analyses.

Population connectivity plays a key role in the demography and evolution of species with structured populations, but is generally difficult to estimate. The difficulty is particularly overwhelming when it comes to estimating population connectivity of deep-sea marine invertebrates that disperse as tiny and inaccessible pelagic larvae. For species with calcified structures, a promising approach is to use elemental fingerprinting (composition of minor and trace elements) to trace back the origin of larvae, optionally in combination with population genetics. The post-doc will investigate dispersal in the hydrothermal gastropod *Shinkailepas tollmanni* (also referred to as *Olgasolaris tollmanni*) using elemental fingerprinting of embryos and young recruits. Before they complete their development and disperse, embryos acquire a calcified shell (protoconch) that incorporates minor elements and trace elements reflective of their natal environment. Since the protoconch is still present at the apex of the shell of young recruits after dispersal, an attempt can be made to identify the natal site of the recruits by comparing the elemental fingerprint of their larval shell with the elemental composition expected from potential source populations (elemental composition of fluid emissions usually differ between localities).

The objectives of elemental fingerprinting are therefore:

- 1- Establish an elemental composition reference for a variety of potential source populations. This will be done by analysing the shell of late-stage encapsulated embryos (veliger larvae almost ready for release) collected from a number of sites and assessing whether this elemental composition is site-specific.
- 2- Determine if differences can be detected in the elemental composition of shell regions that formed before dispersal (apex of juvenile shell) and after dispersal (edge of newly formed juvenile shell).
- 3- Try to assign the natal origin of young recruits by matching the elemental fingerprints of their larval shell to the site-specific reference established for objective 1 above.

At the same time, the post-doc will explore the feasibility of applying a population genetics approach based on RAD-sequencing data for larvae, juveniles, and adults to be compared or combined with results from elemental fingerprinting. As part of an ongoing PhD (collaboration with the University of Montpellier2 and the Banyuls Marine Station, France), adult samples are currently being analysed by the host team using this technique. Samples of encapsulated embryos, young recruits, and adults were collected from ca. 20 hydrothermal sites in five back-arc basins of the

western Pacific, and are available in the host lab. The post-doctoral fellow will work with Thierry Comtet and Thomas Broquet, both CNRS researchers at the Station Biologique de Roscoff with experience in the estimation of connectivity from elemental fingerprinting (TC) and population genetics (TB). In addition, the postdoctoral fellow will collaborate on population genetic analysis with a doctoral student currently in the laboratory. The Roscoff biological station houses various research groups (including the DyDiv team) that study the biology of marine species, from cell cycles, developmental processes and physiology to species ecology and evolution.

We are seeking a collaborative post-doc associate who is interested in research questions related to larval dispersal. Experience in biogeochemical analysis of calcified larval structures and/or population genetics is a pre-requisite to the application. The position is for a period of two years and is remunerated according to the CNRS guidelines (net monthly salary ca. 2–000 to 2–300 Å depending on experience). Interested applicants should submit their application by e-mail (thierry.comtet@sb-roscoff.fr and thomas.broquet@sb-roscoff) including:

1. a 1-2 page statement describing their research interests
2. a CV including contact information (e-mail and telephone) for two to three references.

The review of applications will begin immediately and continue until the position is filled, with a start date around January-February 2020. For more information about the position, please contact T. Comtet and T. Broquet.

– Thomas Broquet Team “Dynamics of Marine Diversity”

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

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## RoyalHollowayU London EvolutionaryTheory

Royal Holloway University of London Department of Biological Sciences Postdoctoral Research Assistant Full-time Fixed-Term Contract (2 years)

Applications are invited for the post of Postdoctoral Research Assistant in the Department of Biological Sciences at Royal Holloway University of London.

We are looking for a highly motivated individual to join the research group of Dr. Francisco Ubeda as a Postdoctoral Research Assistant. We are interested in intra-genomic conflict as an evolutionary force, and the successful candidate will work on a NSF-NERC funded research project which focuses on the evolution of meiosis and recombination via intra-genomic conflict in general and sperm parasitism in particular. The project will involve formulating mathematical models and using the predictions of these models to direct empirical work on the evolution of meiosis in sperm parasitic species. This project is an exciting opportunity to understand how intra-genomic conflict can transform genomic architectures.

You will be responsible for the formulation and analysis of mathematical models, in addition to the preparation for publication and presentation of the models. You will work alongside the project's Principal Investigator.

The successful candidate will have a PhD in Biology, Mathematics or Evolution.

This is a full time, fixed-contract post, available for 2 years from 13th of January 2020 (although we can accommodate any starting date until 1st of Sep 2020).

For an informal discussion about the post, please contact Dr. Francisco Ubeda on Francisco.Ubeda@rhul.ac.uk

To view further details of this post and to apply please visit <https://jobs.royalholloway.ac.uk>. The Human Resources Department can be contacted with queries by email at: recruitment@rhul.ac.uk.

Please quote the reference: 1019-396 Closing Date: Midnight, 29 November 2019 Interview Date: TBC (Early December 2019 at Royal Holloway)

The College is committed to equality and diversity, and encourages applications from all sections of the community.

“Ubeda, Francisco” <f.ubeda@rhul.ac.uk>

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## RoyalMuseum CentralAfrica FruitFlyEvolution

The RoyalMuseum for Central Africa recruits a scientific collaborator (m/f)

Context The Royal Museum for Central Africa (RMCA) offers a position for OFF-Season FF-IPM) (“<https://cordis.europa.eu/project/rcn/223226/factsheet/en>”).

The project targets three highly polyphagous fruit fly (FF) species (Diptera, Tephritidae) of major agricultural importance, which pose an imminent threat to European horticulture. The general objective of this project, involving 16 European and 5 non-European partners is to introduce in-silico supported prevention, detection and Integrated Pest Management (IPM) approaches for both new and emerging FF, based on spatial modelling, novel decision support systems, and new knowledge regarding biological traits of the target species, fruit trading and socioeconomics. The project will run for four years, starting September 2019. As an essential aspect of developing and improving early detection and alert systems, the RMCA will lead the development of molecular tools to identify and trace origin of intercepted and detected FF.

In this respect we aim at using a range of genomic approaches that will allow

?? comprehensively describing inter-specific patterns of variation, population structure and levels of connectivity among populations of the target fruit flies across their range of distribution.

?? describing seasonal changes in the population structure of *Ceratitis capitata*.

?? developing panels of diagnostic SNPs to identify and trace origins of intercepted and detected FF

These tools will include genome re-sequencing, genome skimming / mitogenomics, targeted amplicon sequencing and reduced representation genome sequencing.

The RMCA recruits a young post-doctoral researcher in population genomics (m/f)

Function:

The collaborator will execute and assist in the following tasks and activities:

- DNA library preparation for High Throughput Sequencing (HTS) including whole genome sequencing, targeted amplicon sequencing and reduced representation genome sequencing (including RAD / ddRAD-seq) - analysis of HTS data (including data quality filtering, de novo assemblage and reference mapping, SNP calling and population genomic analyses) - conversion of obtained data into identification tools for tracing origin of intercepted specimens of the target FF - testing robustness and effectiveness of the developed tools - communication with authorities, private enterprises and the general public regarding the obtained results and use of the developed tools - drafting scientific communications and papers in collaboration with scientists of the RMCA research group and the FF-IPM consortium partners. Profile

The candidate has to meet the following requirements:

?? PhD in Population Genomics, Phylogenomics, Evolutionary Biology, or related disciplines ?? Very confident in scripting and in the analysis of High Throughput Sequencing data ?? Confident in population genomic analyses ?? Extensive hands-on experience in wet DNA lab (including preparation of a range of genomic libraries)

General skills: ?? Team player but able to work independently ?? Good communication skills, including use of modern social media ?? Scientific curiosity ?? Good knowledge of English

Additional assets: ?? Knowledge of Dutch and/or French ?? Proven knowledge in one or several of the following fields: agricultural entomology, taxonomy, Diptera

We offer

?? A fixed-term, full-time contract for two years (until 31 December 2022), with possible extension for the duration of the project.

?? Salary according to the standard Belgian Federal government scales for a research assistant (minimum wage SW11: 44.174,57 euro indexed gross annual salary).

?? Interesting holiday regulation.

?? Free public transport.

?? A dynamic and interesting working environment.

How to apply?

Send an E-mail motivation letter and CV before November 4th 2019 to:

HR-RH@afriamuseum.be with subject: ?? FFIPM ??

Applications who meet the required profile and are received before the above mentioned deadline will be contacted by email. The candidates concerned may be invited for an interview that will take place on November 18th, 2019.

For additional information

Regarding the function:

Marc De Meyer: 027695360 marc.de.meyer@afriamuseum.be  
or Massimiliano Virgilio: 027695854 massimiliano.virgilio@afriamuseum.be  
Regarding terms of employment :

Anic Flahou: 027695288, anic.flahou@afriamuseum.be

Massimiliano Virgilio Joint Experimental Molecular Unit (JEMU) Royal Museum for Central Africa Leuvensesteenweg 13, B-3080 Tervuren, Belgium, massimiliano.virgilio@afriamuseum.be 32 (0) 27695854

<https://www.afriamuseum.be/en/staff/896/> Massimiliano Virgilio <massimiliano.virgilio@afriamuseum.be>

## San Francisco State U Viral Evolution

Dear colleagues,

I am looking to hire a postdoc in San Francisco to do data-analysis and computational work on a virus evolution project. Please read on if you're interested!

Pleuni

Position Type:

NIH funded postdoc position at San Francisco State University to work with Dr Pleuni Pennings in the CoDE Lab on viral evolution in macaques. The project is in collaboration with Dr Zandrea Ambrose and Dr Philana Lin from the University of Pittsburgh.

CoDE Lab website: <https://-pleunipennings.wordpress.com/> Position Description:

I am looking for a postdoc to work on a project funded by NIH, in collaboration with Dr Zandrea Ambrose and Dr Philana Lin from the University of Pittsburgh. We study how SIV, TB and the immune system affect each other within the host. The work in SF will mostly be focused on analyzing the viral sequences. I am looking for someone who is interested in doing the programming, the statistics and the writing.

I have worked with Zandrea Ambrose previously which has led to this paper in Plos Pathogens by Alison Feder et al. Philana Lin has done very cool work on TB evolution within macaques using barcoded TB.

Requirements: PhD in Biology or related field.

Other preferred qualifications:

I am looking for someone with experience and interest in several of the following domains: evolution, virology, bioinformatics (next-gen sequencing data) and statistics.

The preferred candidate will also have an interest in / experience with one or more of the following: teaching, working with students from groups who are traditionally underrepresented in research, outreach (e.g., writing, social media, video).

The preferred candidate will have experience with writing clear / understandable scientific prose as evidenced by a writing sample.

I'd be very happy to see applications from people who have left academia and are interested to come back.

I need someone who can start soon (Dec or Jan 1st at the latest).

Why this is a great opportunity:

It's a cool project in a productive lab. You can expect to get several first-author papers out of this postdoc.

You will be part of an extremely diverse department of biology.

You will be working on an exciting project that bridges virology and evolutionary genetics and that could help us understand why TB and HIV are such a dangerous combination.

You will be able to contribute to training of students of diverse backgrounds.

You will get the opportunity to work with people at the University of Pittsburgh.

If you are interested to collaborate with people at Stanford, UCSF or UC Berkeley, I will encourage that and help set up contacts.

In the CoDE lab, you will work in a supportive environment where research is important, but papers are never more important than people.

Appointment:

Funding is available for three years. Appointment will be for one year initially, but will be extended for up to three years if expectations are met. The starting salary is \$57,000 per year.

How to apply:

Send a 1-2 page cover letter, your CV, a paper (or draft) written by you, and names and email addresses for three references to [pennings@sfsu.edu](mailto:pennings@sfsu.edu). Only pdf's please!

Deadline:

I will start looking at applications from Nov 1st, 2019 and hope to hire as soon as possible after that.

—  
Pleuni Pennings (she/her)

Assistant Professor

Department of Biology, San Francisco State University

Website: <http://pleunipennings.wordpress.com/> Paper with Kadie-Ann Williams on the BioRxiv on HIV drug resistance in the late 1990s: <https://www.biorxiv.org/content/10.1101/548198v1.abstract> Pleuni Pennings <[pspennings@gmail.com](mailto:pspennings@gmail.com)>

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## SGN Frankfurt Comparative Genomics TEs

Job offer ref. # 12-19011

The Senckenberg Gesellschaft für Naturforschung (SGN) is a member of the Leibniz Association and is based in Frankfurt am Main, Germany. LOEWE Centre for Translational Biodiversity Genomics (LOEWE-TBG) is a joint venture of the Senckenberg Gesellschaft für Naturforschung (SGN), Goethe-University Frankfurt, Justus-Liebig-University Giessen and Fraunhofer Institute for Molecular Biology and Applied Ecology IME aiming to intensify biodiversity genomics in basic and applied research. We will establish a new and taxonomically broad genome collection to study genomic and functional diversity across the tree of life and make genomic resources accessible for societal-demand driven applied research.

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

PostDoc Position (m/f/d)

Comparative Genomics of transposable elements in marine organisms

(full time, 100 %)

Your tasks:

§ Comparative genomic analysis of transposable elements in non-model organisms, especially nemertean

§ Evolutionary inference of transposable elements to study their dynamics, phylogeny, and/or mode of transmission

Your profile:

§ PhD in biology, bioinformatics or related subjects

§ Experience with genome assembly and scripting

§ Interest in mobile genetic elements

§ Experience and solid understanding as well as exceptional interest in comparative genomics and evolutionary biology research

§ Teamwork oriented and excellent communication skills in both written and spoken English

§ Can work independently and meet deadlines

What is awaiting you?

§An interesting task in a dynamic team of researchers in an international research group and joining the new LOEWE excellence centre with its 20 new research groups.

§Access to unpublished genomes from exotic animal phyla

§The opportunity to habilitate at Goethe University or get teaching experience

§The possibility to create a network with scientists in interdisciplinary fields in translational biodiversity genomics

Salary and benefits are according to a full time public service position in Germany (TV-H E13). The contract should start as soon as possible and will initially be limited to December 31th, 2021. The place of employment is in Frankfurt am Main, Germany. The employer is the Senckenberg Gesellschaft für Naturforschung. Equally qualified handicapped applicants will be given preference.

Please send your application, mentioning the reference of this job offer (ref. #12-19011) before November 10th, 2019 by e-mail (attachment in a single pdf document) and including a cover letter detailing research interests and experience, a detailed CV and a copy of your certification to:

Senckenberg Gesellschaft für Naturforschung

Senckenberganlage 25

60325 Frankfurt am Main

E-Mail: [recruiting@senckenberg.de](mailto:recruiting@senckenberg.de)

For more information please contact Prof. Dr. Axel Janke ([axel.janke@senckenberg.de](mailto:axel.janke@senckenberg.de)).

Mit freundlichen Grüßen / Best Regards

Jessica Helm Personalsachbearbeiterin

SENCKENBERG Gesellschaft für Naturforschung (Rechtsfähiger Verein gemäß § 22 BGB) Senckenberganlage 25

60325 Frankfurt am Main

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

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

Leiterin Personal & Soziales - 1458 Loke, Uta

Stellv. Leiterin Personal & Soziales - 1319 Elsen, Carina

Team Personalbeschaffung (Recruiting) - 1564 di-Biase, Maria - 1313 Helm, Jessica - 1478 Gajcevic, Isabel

Fax: 0049 (0)69 / 7542-1445

Mail: [recruiting@senckenberg.de](mailto: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](http://www.senckenberg.de/-socialmedia) recruiting <[recruiting@senckenberg.de](mailto:recruiting@senckenberg.de)>

## SLU Uppsala PlantGenomics

We are looking broadly for a postdoc/researcher to work on a genome project in Timothy (*Phleum pratense*). De novo assembly, re-sequencing, construction of a genotyping platform and other tool development. Prior experience with genome assembly highly desired. Deadline for applications are October 31. Full ad is available here: <https://www.slu.se/en/about-slu/jobs-vacancies/?rmpage=job&rmjob=2708&rmlang=UK> Applicants should have a PhD in genetics, genomics, bioinformatics or related fields and a genuine interest to carry out genomics work on non-model organisms. Applicants should have excellent bioinformatics skills related to large genomic datasets and experiences working with genome assembly and annotation is highly desirable. Familiarity with population and comparative genomics and bench skills associated with DNA and RNA extraction and library preparations are considered a merit. Great emphasis will be placed on personal qualities such as creativity, motivation and drive. Good knowledge of English in both speech and writing is a prerequisite. Candidates should also have an ability to conduct independent research, take initiative, ask pertinent scientific questions, and interact with other scientists.

Note that ad states that we are looking for candidates with a PhD that is no more than three years old, but I would strongly encourage more senior people are to apply.

The Department of Plant Biology has about 90 employees and is active within research areas focused on plant development, diversity and defence ([www.slu.se/en/departments/plant-biology-forest-genetics](http://www.slu.se/en/departments/plant-biology-forest-genetics)). The Department belongs to the Uppsala BioCenter ([www.bioc.slu.se](http://www.bioc.slu.se)), an excellent scientific environment combining competence in plant biology, forest mycology and pathology, microbiology, food science,



chemistry and biotechnology. It also offers state-of-the-art infrastructure, including modern plant growth facilities as well as equipment for bioimaging and molecular biology. The department is also a member of the Linnean Centre for Plant Biology in Uppsala ([www.lcpu.se](http://www.lcpu.se)), a platform for interactions between plant scientists at SLU and Uppsala University. Uppsala is host to a SciLifeLab node ([www.scilifelab.se](http://www.scilifelab.se)) that offers national platforms for genomics, proteomics and microscopy.

Pär K. Ingvarsson Professor, Plant genomics and plant breeding Linnean Center for Plant Biology Department of Plant Biology Swedish University of Agricultural Sciences Uppsala BioCenter PO-Box 7080 SE-750 07 Uppsala, Sweden phone: +46-18-673230, <http://pkilab.org> — När du skickar e-post till SLU sÅ¥ innebär detta att SLU behandlar dina personuppgifter. Fr att lsa mer om hur detta gÅ¥r till, klicka hr < <https://www.slu.se/om-slu/kontakta-slu/personuppgifter/> >

E-mailing SLU will result in SLU processing your personal data. For more information on how this is done, click here < <https://www.slu.se/en/about-slu/contact-slu/personal-data/> >

Pr Ingvarsson <[par.ingvarsson@slu.se](mailto:par.ingvarsson@slu.se)>

## SouthAfrica StripedMouseReproductiveCompetition

Postdoc Project: Reproductive Competition and Sociality

(Seasonal Unpredictability and Social Flexibility)

We are looking for a highly motivated postdoc to join the striped mouse project [www.strippedmouse.com](http://www.strippedmouse.com) and our group at the University of the Witwatersrand (Johannesburg) to study the influence of the degree of reproductive competition on sociality. We have two South African funding opportunities (one pending, one call coming up) and decisions about the funding and the postdoc position will be made before Christmas 2019.

For the project, a long-term dataset on social organisation of striped mice will be available for analyses (from 2003 to present) and further data collection will extend to 2021. Sociality (% of solitary versus group-living striped mice) will be studied in relation to population density and the intensity of reproductive competition, which is (i) very high during the spring breeding season when all females breed, (ii) absent during most summer dry seasons, (iii) low during summers with unexpected

rains when few females breed (6 out of 17 summers in the current data set).

Questions and predictions: We expect that reduced reproductive competition during summer breeding will lead to more social instability in spring compared to summer, i.e. groups to be more stable in summer. We will also study which factors differ between females that breed during the summer vs. females that don't. Finally, the impact of rare summer breeding on population dynamics will be studied.

Key requirements: Strong statistical skills. Good understanding of social evolution. Strong CV with 3 publications from the PhD and at least 1 publication per year from postdoc studies, some of them in high ranking journals (impact factor >3). Willingness to spend considerable time in the field in South Africa. Ability to analyse data and to write manuscripts while being field based.

What you will learn: Strong field skills. The postdoc will spend considerable time in the field. It is expected that the postdoc will prepare and start analysing the database while being based at the Succulent Karoo Research Station in South Africa [www.strippedmouse.com](http://www.strippedmouse.com) < <http://www.strippedmouse.com> > .

Key references:

Schradin, C. 2013. Intraspecific variation in social organization by genetic variation, developmental plasticity, social flexibility or entirely extrinsic factors. *Philosophical Transactions of the Royal Society B-Biological Sciences*, 368, doi:10.1098/rstb.2012.0346.

Schradin, C., Hayes, L. D., Pillay, N. & Bertelsmeier, C. 2018. The evolution of intraspecific variation in social organization. *Ethology*, 124, 527-536.

Schradin, C., Knig, B. & Pillay, N. 2010. Reproductive competition favours solitary living while ecological constraints impose group-living in African striped mice. *Journal of Animal Ecology*, 79, 515-521.

Schradin, C., Lindholm, A. K., Johannesen, J., Schoepf, I., Yuen, C.-H., Knig, B. & Pillay, N. 2012. Social flexibility and social evolution in mammals: a case study of the African striped mouse (*Rhabdomys pumilio*). *Molecular Ecology*, 21, 541-553.

How to apply: In a single PDF, send a letter of motivation, your academic CV, and contact details of a minimum of 2 referees to Carsten Schradin, [carsten.schradin@iphc.cnrs.fr](mailto:carsten.schradin@iphc.cnrs.fr) and Neville Pillay, [neville.pillay@wits.ac.za](mailto:neville.pillay@wits.ac.za) . Applications will be screened continuously. For full consideration, send your application before the 1st of November 2019.

More information: [www.strippedmouse.com](http://www.strippedmouse.com) , <http://www.strippedmouse.com>

[/www.iphc.cnrs.fr/-Carsten-Schradin-.html](http://www.iphc.cnrs.fr/-Carsten-Schradin-.html), [https://www.researchgate.net/profile/Neville\\_Pillay](https://www.researchgate.net/profile/Neville_Pillay). To get more details on the research questions email Carsten.schradin@iphc.cnrs.fr

Director Succulent Karoo Research station  
<succulent.karoo.research.station@kabelbw.de>

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## StAndrews EvolutionaryQG

Applications are invited for a two year postdoctoral position in the Centre for Biological Diversity at the University of St Andrews. The postdoc will conduct evolutionary quantitative genetic studies of selection and genetic variation of ecologically important traits throughout the lifecycle of Soay sheep (*Ovis aries*). The overall aim of the project is to understand how accounting for selection early in life can change/improve inference of selection throughout the entire life cycle. The project is funded by a NERC Standard Grant entitled Resolving the paradox of stasis: addressing the missing fraction problem awarded to Michael Morrissey (St Andrews) and Josephine Pemberton (Edinburgh).

The ideal candidate will have a proven track record of one or more of the following skills: field work at remote locations, statistical analysis, especially mixed model-based methods (incl. implementation in R or python), knowledge of evolutionary quantitative genetic theory, and scientific writing skills. The successful candidate will have excellent opportunities to further improve and develop these skills. Prior experience in long-term animal systems is not necessary; interest in the mechanics of evolution on generation-to-generation time scales is key. Main duties will include designing and conducting analyses of existing data and preparation of manuscripts. The successful candidate will be encouraged to participate in long-term data collection as part of the 35+ year intensive, individual-based, long-term study of Soay sheep on St Kilda. The project will also support participation in local and international conferences.

The University of St Andrews School of Biology is committed to promoting equality of opportunity for all, and was awarded the Athena SWAN Silver award in 2018 for its sustained progression and achievement in advancing equality and representation.

The School particularly welcomes applications from those suitably qualified from underrepresented minorities. The School values equality and diversity across its workforce and offers a family friendly environment

in which flexible working is encouraged; we strive to hold important meetings/seminars within core hours of 09.15 to 14.45. In addition, a broad variety of measures are currently being introduced to ensure effective career progression for everyone and to eradicate the historical underrepresentation of females at higher professional levels.

The University is committed to equality for all, demonstrated through our working on diversity awards (ECU Athena SWAN/Race Charters; Carer Positive; LGBT Charter; and Stonewall). More details can be found at <http://www.st-andrews.ac.uk/hr/edi/diversityawards/>. Please direct informal inquiries to Michael Morrissey: mbm5@st-andrews.ac.uk

Interviews will be held in January 2020

Please quote ref: AR2271MR

Closing Date: 16 December 2019

School of Biology/ Centre for Biological Diversity Salary: 33,797 - 35,845 per annum Fixed Term: 2 years Start: 1 May 2020 or as mutually agreed

Michael Morrissey Royal Society University Research Fellow and Reader in Evolutionary Biology University of St Andrews michael.morrissey@st-andrews.ac.uk

mbm5@st-andrews.ac.uk

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## StLouis PlantEvolution

Kellogg lab, Donald Danforth Plant Science Center, St. Louis, Missouri

A post-doctoral position is available in an NSF-sponsored investigation of morphological evolution in the grass tribe Andropogoneae. The successful candidate will take a leadership role in generating a species-level phylogeny from existing genomic data, capturing images of specimens and collecting extensive morphometric data from them, assessing the extent to which morphological integration (correlation of sizes of parts) correlates with diversification, and undertaking experimental work to estimate functional integration. Qualifications include a Ph.D. in systematics or a related discipline; familiarity with phylogenetic methods and approaches to studying character evolution, and basic knowledge of statistics. Knowledge of plant morphology and morphological evolution is highly desirable, although candidates with familiarity with animal morphology will be considered. Please send a letter describ-

ing your interest in the project, a CV, and names and contact information for three referees through the link to PostdoctoralAssociate 'V Kellogg lab at <https://www.danforthcenter.org/about/careers> . “Kellogg, Elizabeth” <EKellogg@danforthcenter.org>

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## StockholmU MicrobialPopGenetics

Postdoctoral position in Stockholm University and SciLifeLab

One of the main goals of the postdoctoral position is to understand and characterize microbial associations and interactions in aquatic environments. To do this, we will use state of the art technologies through SciLifeLab. The project has ample opportunities to establish collaborations and develop and test research hypothesis about microbial ecology, genetic population structures, test models of species interactions and directed evolution.

Please apply through Stockholm University Job portal

Further information about the position can be obtained from the Head of the Department, Professor Ove Eriksson, [ove.eriksson@su.se](mailto:ove.eriksson@su.se), and the project leader Sarahi Garcia, [sarahi.garcia@su.se](mailto:sarahi.garcia@su.se).

Sarah L. Garcia Assistant Professor SciLife Lab Fellow Department of Ecology, Environment and Plant Sciences (DEEP) Stockholm University 106 91 Stockholm Phone:

Check outDEEPs

Sarahi Garcia <[sarahi.garcia@su.se](mailto:sarahi.garcia@su.se)>

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## StockholmU UppsalaU MarineEndosymbiosis

Joint postdoc position in Marine Microbiology with Emphasis on Endosymbiosis in the Department of Ecology, Environment and Plant Sciences at Stockholm University and in the Department of Organismal Biology at Uppsala University (Sweden).

See full description and how to apply here: <https://www.su.se/english/about/working-at-su/jobs?rmpage=-job&rmjob=10173&rmlang=UK> Closing date: November 5, 2019

Project description: The position is associated with a project on characterising an enigmatic marine endosymbiosis in the genus *Meringosphaera*. *Meringosphaera* are single-celled eukaryotes that are globally distributed and are considered photosynthetic based on consistent observations of autofluorescent 'green bodies' and absence of feeding behaviours. The autofluorescent bodies, however, have not been verified as true chloroplasts by ultra-structure or genetic analysis. In fact, no molecular data is available for *Meringosphaera*. The overarching goals of this two year postdoctoral project are to characterize the genetic integration and metabolic function of the photosynthesizing bodies of *Meringosphaera*. A suite of single cell methods will be employed including halogenated in situ-hybridization (HISH)-secondary ion mass spectrometry (HISH-SIMS), flow activated sorting (FACS) for single cell genome and transcriptome sequencing, confocal laser scanning microscopy (CLSM). The position is a collaborative project between the laboratories of Rachel A Foster from SU and Fabien Burki from UU.

Main responsibilities: The position involves sampling, imaging by CLSM, and attempts for cultivation of *Meringosphaera* cells in enrichment cultures. Additionally, managing the sample preparations for FACS, single cell sequencing, and implementation of stable isotope experiments and preparing and overseeing samples for nanoSIMS analyses. Training will be provided when necessary.

Qualification requirements: Postdoctoral positions are appointed primarily for purposes of research. Applicants are expected to hold a Swedish doctoral degree or an equivalent degree from another country. The selected candidate must possess expertise and knowledge in microbial sampling as well as identifying and handling small eukaryotic plankton. Experience in culturing of microbial eukaryotes with background in eukaryotic diversity and photosymbiosis will be seen as highly valuable. A suite of methodologies will be used in the proposed work and hence the following skills are desirable: use of basic and/or advanced microscopy platforms (epi-fluorescence, CLSM), use and or understanding of FACS, basic molecular based assays including kit based assays (e.g. nucleic acid extractions, PCRs, genome amplification kits), library preparations for bar-coding, and genome analysis. Previous experience with stable isotopes, and in field expeditions (e.g. ocean-going cruises) are also good qualifications but not necessary. The candidate should be interested, motivated and flexible to move between the labs of Foster (SU) and Burki (UU) as experiments will be carried out at both locations. Candidates must be fluent in English.

Assessment criteria: The PhD degree should have been

completed no more than three years before the deadline for applications. An older degree may be acceptable under special circumstances, which may involve sick leave, parental leave, clinical attachment, elected positions in trade unions, or similar. In the appointment process, special attention will be given to documented research skills as described in the qualification requirements (e.g. assay development, cultivation, work with single celled eukaryotes, various above mentioned single cell methods), and publication history.

**Terms of employment:** The position involves full-time employment for a maximum of two years, with the possibility of extension under special circumstances. Start date as soon as possible, and no later than 2019-12-31.

**Contact:** Further information about the position can be obtained from Dr. Rachel A. Foster, telephone: +46 8 16 12 07, [rachel.foster@su.se](mailto:rachel.foster@su.se) or Dr. Fabien Burki, telephone: +46 18-471 27 79, [fabien.burki@ebc.uu.se](mailto:fabien.burki@ebc.uu.se).

This project is funded by a grant from SciLifeLab ([www.scilifelab.se](http://www.scilifelab.se)), a Swedish national center for molecular biosciences with focus on health and environmental research. The center combines frontline technical expertise with advanced knowledge of translational medicine and molecular bioscience. SciLifeLab is hosted by four Swedish universities (Karolinska Institutet, KTH Royal Institute of Technology, Stockholm University and Uppsala University) and collaborates with several other universities.

När du har kontakt med oss på Uppsala universitet med e-post innebär det att vi behandlar dina personuppgifter. För

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## Tampa FL CancerEvolution

Postdoctoral Fellow - Clonal Evolution of Cancer

A main problem in the treatment of advanced cancers is the uncertainty at which we predict how individual patients will respond to DNA-damaging agents, especially on the long run. Despite a wealth of genomic information, “more-is-better” and “one-size-fits-all” remain the principles according to which DNA-damaging agents are administered.

We seek applications from individuals to test the potential of the very long-term legacy that DNA-damage entails on a cell - genomic instability - as new biomarker of DNA damage response. The position is fully funded through an NCI R00 awarded to Dr. Andor and an R35 NCI Outstanding Investigator Award awarded to Dr. Flores. The postdoctoral researcher will be co-mentored by Drs. Andor and Flores.

**Position Highlights:** This Postdoc will be part of a multi-disciplinary team in the Departments of Integrated Mathematical Oncology (IMO) and Molecular Oncology, where wet- and dry-lab components of in-vitro and in-vivo experiments are seamlessly integrated to meet the project’s central challenge: quantifying the growth rates of coexisting tumor clones.

**The Ideal Candidate:** -extensive experience working in both, in-vitro and in-vivo systems, in particular with GEMMs.

-has interest in learning basics of programming to trace long-term trends in the clonal evolution of cell populations.

**Responsibilities:** -communicate with computer scientists and mathematicians.

-will expose cell lines and mouse models of cancer to DNA damaging agents and quantify drug-induced changes in their clonal composition from different perspectives, including their transcriptome and histopathology.

**Credentials and Qualifications:** MD or PhD in Cancer Biology, Genetics, Pharmacology or Molecular Biology.

This position brings a unique opportunity to be co-mentored by multiple investigators at the forefront of this multidisciplinary field, in an environment where experimental and computational domains interact like clockwork. It includes funded travel to attend research conferences.

Interested applicants should send a cover letter, current CV, contact information for three references and a brief personal statement describing their perspective on the co-evolution of tumor cells and therapy to Drs. Flores and Andor at [Elsa.Flores@Moffitt.org](mailto:Elsa.Flores@Moffitt.org) and [Noemi.Andor@Moffitt.org](mailto:Noemi.Andor@Moffitt.org).

Moffitt Cancer Center 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, age, or protected veteran or disabled status. We seek candidates whose skills, and personal and professional experience, have prepared them to contribute to our



commitment to diversity and excellence.

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>

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## TempleU ModelingInvasiveSpecies

The Integrative Ecology Lab at Temple University is seeking creative and productive applicants for a post-doctoral researcher conducting mathematical modeling of invasive spotted lanternfly (*Lycorma delicatula*) population dynamics. The spotted lanternfly is an invasive Asian planthopper that was first introduced to the US outside of Philadelphia, Pennsylvania in 2014, and has since spread to five nearby states. In addition to natural spread, human-assisted lanternfly spread occurs during all life stages: adults and nymphs hitchhike on cars and it can spread long distances in the egg stage because it lays eggs on mobile outdoor objects like recreational vehicles and landscaping materials. It feeds on over 70 plant species, sometimes at very high densities, including economically important species like maples, apples, hops, and grapes. Invaded vineyards have lost entire crops, affecting wine production. We are just beginning to model its pattern of spread and potential to disrupt agricultural and natural ecosystems. Billions of dollars are under threat. You can be at the forefront of cross-disciplinary modeling research on this emerging invasion.

The position will be co-advised by Matthew Helmus (Biology) and Benjamin Seibold (Math) at Temple University. Helmus jointly runs the Integrative Ecology Lab (iEcoLab) with the mission to integrate biodiversity science with human ecology to understand contemporary patterns of biodiversity and its functioning within ecosystems (<https://www.iecolab.org/>). Seibold directs the Center for Computational Mathematics and Modeling (C2M2) on cross-disciplinary research in applied and computational mathematics (<https://c2m2.cst.temple.edu/>). To read more about their spotted lanternfly research see <https://www.iecolab.org/projects/spotted-lanternfly/>. The postdoc would work closely with two other postdocs and two graduate students also working on spotted lanternfly at Temple. Fi-

nally, the postdoc would interact with a USDA funded multi-university team of cross-disciplinary scientists and public stakeholders and would regularly attend working groups and meetings on this invasive pest.

Expertise in mathematical modeling, partial differential equations, numerical methods, and programming is required. Candidates should have a Ph.D. in Biology, Mathematics, Physics, or other related fields. Most importantly, the successful applicant will be well-organized, able to work both independently and in a team setting, and motivated to learn. This position is ideal for those craving a career in the exciting, fast-paced world of biodiversity science. Applications should be emailed to both Dr. Helmus ([mrhelmus@temple.edu](mailto:mrhelmus@temple.edu)) and Dr. Seibold ([seibold@temple.edu](mailto:seibold@temple.edu)). Please send as a single PDF:

- Cover letter outlining qualifications, experience and why you are interested in the position
- Curriculum vitae including links to authored publications
- Name, phone number, and email addresses of three references

Review of applications will begin on October 23rd and will continue until the position is filled.

iEcoLab is in a new LEED-Gold certified building in historic Philadelphia. iEcoLab is part of the Center for Biodiversity, which provides state-of-the-art biodiversity research facilities along with support staff with expertise in media development, GIS technology, high-performance computing, and genetics. Temple University, founded in 1884, is a public R1 university with a diverse student body of ca. 40,000 students. It is the sixth-largest provider of graduate school education in the U.S.A., is within the top 4% of research institutions in the U.S. and is in the top ten of the fastest gainers in ranking by the U.S. News & World Report Best Colleges.

Philadelphia is the birthplace of the United States. It is filled with numerous attractions (e.g., Philadelphia Museum of Art, Philadelphia Zoo, Academy of Natural Sciences), amazing food, and it is a quick train ride to New York City and Washington DC. Philadelphia is nestled within an extensive national/state trail and park system and is very close to Valley Forge National Park, the Pocono Mountains, the unique Pine Barren ecosystem, and beaches of the Atlantic shore.

Temple University is an equal opportunity, equal access, affirmative action employer committed to achieving a diverse community. iEcoLab believes the crisis in biological diversity can only be addressed by scientists from diverse backgrounds and with diverse viewpoints. iEcoLab and C2M2 strongly encourages applications with such diversity.



Matthew R. Helmus, Ph.D. Integrative Ecology Lab <<http://www.iecolab.org/>> Center for Biodiversity <<http://www.biodiversitycenter.org/>> Department of Biology Temple University

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## Toulouse HumanEvolution

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

Please visit: <http://www.iast.fr/research-fellowships> for more information and applications. Deadline for applications: 15th November 2019

Delphine POUTS Assistante de Direction Executive Assistant

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

Delphine Pouts <[delphine.pouts@iast.fr](mailto:delphine.pouts@iast.fr)>

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## TrentU ComparativeGenomics

PDF in Comparative Ungulate Genomics, Trent University

Lab: Aaron Shafer, Environmental and Life Sciences Graduate Program - <http://www.aaronshafer.ca/> I am seeking to recruit a PDF to lead a large-scale population and comparative genomics study on ungulates. The PDF will leverage whole genome sequencing data to contrast demographic histories and patterns of adaptive evolution across multiple ungulate species. There is considerable flexibility in the question(s), and the successful applicant will be able to expand on the demographic and adaptive analyses to address fundamental questions in population genetics of their choosing. Applicants should have a background in population genomics or bioinformatics.

Anticipated start date is Sept 2020.

The PDF position is for 2 years at \$50,000 CAD per year + benefits.

General inquiries should be sent to Aaron Shafer ([aaronshafer@trentu.ca](mailto:aaronshafer@trentu.ca)). Applications should use the subject line: Genomics PDF Project and include a brief statement of research interests and related experience, plus a copy of their current CV.

Aaron Shafer <[aaronshafer@trentu.ca](mailto:aaronshafer@trentu.ca)>

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## UAlaska Anchorage SquirrelHostMicrobe

Postdoctoral Position in Host-Microbe Interactions in Arctic Ground Squirrels

University of Alaska Anchorage

A postdoctoral fellow position is available in the Duddleston lab at the University of Alaska Anchorage (UAA) Department of Biological Sciences (<https://www.uaa.alaska.edu/academics/college-of-arts-and-sciences/departments/biological-sciences/>) to study host-gut microbe interactions in arctic ground squirrels. Arctic ground squirrels are fascinating animals that hibernate for 7 to 9 months each year without eating

or drinking, and regulate their body temperature to  $-2.9^{\circ}\text{C}$ , the lowest body temperature of any mammal. Despite months of disuse and fasting, arctic ground squirrels lose little lean mass during hibernation. We seek a postdoctoral scientist to lead investigations combining multi-omics, stable isotope tracer, and culturing approaches to examine the potential contribution of the gut microbiota to lean-mass loss resistance via the production and provision of essential amino acids. The postdoc will join an active and vibrant lab studying host-associated microbiotas that includes technicians, graduate and undergraduate students, with the opportunity to engage in student mentorship.

Faculty in Biological Sciences at UAA are engaged in research from Arctic ecology to molecular biology, and ecosystem science to One Health, and work collaboratively with university and agency scientists locally, regionally and globally. Our department has approximately 600 undergraduate majors and 30 MS students, and we are a campus-wide leader in undergraduate research mentorship. The department and lab is housed in the ConocoPhillips Integrated Sciences Building, which is characterized by state of the art equipment and open interactions spaces to facilitate community. The department hosts a weekly seminar series and monthly bioinformatics working group. In addition to the UAA Postdoctoral Association, faculty development opportunities (workshops, working groups, etc) hosted by the UAA Center for Advancing Faculty Excellence (CAF $\tilde{\text{A}}$ ) are open to postdocs

<https://www.uaa.alaska.edu/academics/institutional-effectiveness/departments/center-for-advancing-faculty-excellence>) UAA is the largest of three universities in the University of Alaska system, serving nearly 14,000 students. UAA enrolls an increasingly diverse student body including 9.7% identifying as Alaska Native or AN-2 or more races, 8.2% Hispanic, 3.2% African American, 8.2% Asian, 5.9% non-Hispanic 2-or more races, and 1% Native Hawaiian/Pacific Islander. Anchorage, the largest city in Alaska, with an ethnically diverse population of 290,000, offers a lively intellectual and cultural life, including opera, symphony, theater, art events, and a variety of restaurants. Set between snow-capped peaks of the Chugach Mountains and the ocean waters of Cook Inlet, the city offers ready access to state and national forests and parks, year-round outdoor recreation, and unsurpassed natural beauty. The University of Alaska is an affirmative action/equal opportunity employer and educational institution. The University of Alaska does not discriminate on the basis of race, religion, color, national origin, citizenship, age, sex, physical or mental disability, status as a protected veteran, marital status, changes in marital status,

pregnancy, childbirth or related medical conditions, parenthood, sexual orientation, gender identity, political affiliation or belief, genetic information, or other legally protected status. The University's commitment to nondiscrimination, including against sex discrimination, applies to students, employees, and applicants for admission and employment. Contact information, applicable laws, and complaint procedures are included on UA's statement of nondiscrimination available at [www.alaska.edu/nondiscrimination](http://www.alaska.edu/nondiscrimination). This position is supported by an NIH-COBRE grant, and three years of funding is provided. Review of applications will begin mid-December. The ideal start-date is February/March, 2020; however, a later start will be considered. Applicants should submit a cover letter, CV and names of 3 references to the UAA Biological Sciences Postdoctoral Fellow job pool at

<https://careers.alaska.edu/en-us/job/512896/uaa-postdoctoral-fellow-for-biological-sciences>. For questions about the position or more information, contact Khrys Duddleston at [knduddleston@alaska.edu](mailto:knduddleston@alaska.edu).

Khrys Duddleston <[knduddleston@alaska.edu](mailto:knduddleston@alaska.edu)>

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## UArizona VertebrateAlgaSymbiosis

A postdoc position is available in the Duhamel laboratory in the Molecular and Cellular Biology department at the University of Arizona, Tucson, AZ (<https://mcb.arizona.edu/profile/solange-duhamel>). The research is an exploration of metabolite exchange in a vertebrate-alga symbiosis. The work will involve stable and radioisotope labeling of a freshwater green alga, microinjection of algae into amphibian embryos, and histological and chemical analyses of the established symbiosis. We seek to reveal nutritional aspects of this novel symbiosis. We are looking for someone with experience in histological methods with knowledge of different embedding and sectioning materials and protocols. The work will require travel to the Burns laboratory at Bigelow Laboratory for Ocean Sciences in Boothbay, Maine (~2-3 months per year). The position is currently funded for one year from the start date with the possibility for extension.

Outstanding UA benefits include health, dental, vision, and life insurance; paid vacation, sick leave, and holidays; UA/ASU/NAU tuition reduction for the employee and qualified family members; access to UA recreation and cultural activities; and more!

The University of Arizona, recognized as a Public Ivy, offers state-of-the-art facilities and a vibrant, supportive, and highly collaborative academic environment. The University of Arizona has been listed by Forbes as one of Americas Best Employers in the United States and WorldatWork and the Arizona Department of Health Services have recognized us for our innovative work-life programs. For more information about working at the University of Arizona and relocation services, go to: <http://www.whyua.arizona.edu>. The University campus is located in Tucson in southern Arizona and surrounded by beautiful mountain ranges. The postdoctoral scientists at Bigelow Laboratory have access to an active professional training program. The laboratory's state-of-the-art oceanfront campus is located in scenic Midcoast Maine, which offers excellent opportunities for outdoor activities, including hiking, canoeing, sailing, and skiing.

Candidates must have a PhD degree in a relevant field. Excellent written and verbal communication skills and ability to work harmoniously in a collaborative research team are crucial. All offers of employment are contingent upon positive results of a background check.

Salary will be commensurate with prior experience.

Qualifications: PhD in Biology or a related degree.

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.

To apply, please upload a research statement describing your accomplishments and interests, your CV, and the names and contact information of three references online at [www.uacareertrack.com](http://www.uacareertrack.com) (Job # P20858) or directly at <http://uacareers.com/postings/40174>. Inquiries can be sent to Dr. Solange Duhamel ([duhamel@email.arizona.edu](mailto:duhamel@email.arizona.edu)) and Dr. John Burns

([jburns@amnh.org](mailto:jburns@amnh.org)).

Dr. Solange Duhamel Associate Professor Department of Molecular and Cellular Biology

The University of Arizona 1007 E Lowell Street

Life Sciences South 354 Tucson, AZ 85721, US  
Tel: 520-621-6057 <https://mcb.arizona.edu/-profile/solange-duhamel> Solange Duhamel  
<[duhamel@email.arizona.edu](mailto:duhamel@email.arizona.edu)>

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## UBasel VertebrateSingleCellGenomics

Postdoc: UBasel.VertebateSingleCellGenomics A fully funded bioinformatics postdoctoral position is available in the Laboratory of Regulatory Evolution (Tschopp lab) at DUW Zoology, University of Basel, Switzerland.

We study the gene regulatory mechanisms of cell fate specification in the vertebrate skeleton. Depending on anatomical location, the vertebrate skeleton develops from three distinct progenitor populations - neural crest, somitic and lateral plate mesoderm. We are interested in the gene regulatory network (GRN) dynamics that transcriptionally re-code these distinct progenitor pools towards functionally analogous skeletal cells.

As part of a larger Swiss National Science Foundation (SNSF)-funded project, we are looking for a bioinformatics postdoc to analyze developmental single-cell RNA-seq and single-cell ATAC-seq data, followed by CRISPR/Cas9 perturbations, to infer the GRN dynamics underlying this progenitor convergence towards a common skeletal cell fate. These analyses will be performed in collaboration with the group of Prof. Erik van Nimwegen, experts in computational GRN inference, at the Biozentrum Basel. The project builds on a solid foundation of confirmed preliminary data. For more information please visit <http://evolution.unibas.ch/tschopp-research/> The successful candidate will hold a PhD with a strong background in one or several of the following fields: bioinformatics; single cell analyses; statistics; computational data analysis; as well as interests in developmental and molecular biology. Good communication skills in oral and written English are essential.

We offer a highly interactive and interdisciplinary research environment, state-of-the-art technology platforms, attractive employment conditions and very competitive salaries by international standards. Full funding is available for 1+2 years.

Please send your application as a single PDF with a brief statement of motivation, a current CV and contacts for at least two references to [patrick.tschopp@unibas.ch](mailto:patrick.tschopp@unibas.ch). Evaluation will begin on December 1st 2019 and suitable candidates will be contacted shortly after. Earliest starting date is January 1st 2020.

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## UBritishColumbia Biodiversity

Postdoctoral Fellowship Opportunity. We seek applicants for a 2-year postdoctoral fellowship in the UBCBiodiversity Research Centre.

2-year postdoctoral fellowship in the UBCBiodiversity Research Centre (2020-2022) 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 a variety of research 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 a seminar series, and organize a retreat. 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

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/35550](http://www.facultycareers.ubc.ca/35550) Application closing date: January 12, 2020. All materials must be received by January 12, 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.

Katie Beall Administrator Faculty of Science|Biodiversity Research Centre The University of British Columbia | Vancouver Campus 115-2212 Main Mall|Vancouver BC|V6T 1Z4 Canada Phone 604 822 0862 [brcadmin@biodiversity.ubc.ca](mailto:brcadmin@biodiversity.ubc.ca) <http://www.biodiversity.ubc.ca> Katie Beall <[brcadmin@biodiversity.ubc.ca](mailto:brcadmin@biodiversity.ubc.ca)>

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## UExeter HostParasiteInteractions

Full advert and application forms: [https://jobs.exeter.ac.uk/hrpr\\_webrecruitment/wrd/-/run/ETREC107GF.open?VACANCY\\_ID=-691343QfIA&WVID=3817591jNg&LANG=USA](https://jobs.exeter.ac.uk/hrpr_webrecruitment/wrd/-/run/ETREC107GF.open?VACANCY_ID=-691343QfIA&WVID=3817591jNg&LANG=USA)  
The post

We are looking to appoint a full time Postdoctoral Research Fellow to conduct research on host-pathogen interactions working with Wellcome Trust Sir Henry Dale research fellow Dr Ben Longdon, at the University of Exeter, Penryn campus.

This post is available on a fixed term basis for two years with the possibility to extend.

About the role

Host-parasite interactions offer fascinating opportunities to study coevolution, local adaptation and rapid evolutionary change. Our work uses a unique experimental system of up to 50 species of *Drosophila* and naturally occurring RNA viruses to ask fundamental questions about pathogen host shifts - where a pathogen jumps from one host species to another. Host shifts are a major source of emerging infectious diseases, with HIV, Ebola virus and SARS coronavirus having all jumped into humans from other host species.



By taking a comparative approach, with a strong set of hypotheses from ecological and evolutionary theory, we can provide insights into the factors underlying host shifts that will be generally applicable to any group of hosts or viruses. Understanding pathogen host shifts is critical, especially in light of environmental change.

Our model system has provided key insights into host shifts, namely the importance of genetic similarity between hosts. Based on work in *Drosophila melanogaster*, we know the interactions between host antiviral immunity and the ability of the virus to suppress this immune response, can play a role in explaining differences in susceptibility.

The initial aim of the postdoc is to examine why viruses can infect some hosts and not others by looking at how the viral suppressor of immunity functions in different host species, and how this influences patterns of susceptibility across the host phylogeny, but there are many opportunities to develop new projects to explore the ecology and evolution of pathogen host shifts.

About you

Applicants will possess a relevant PhD or equivalent qualification/experience in a related field of study.

The successful applicant will be responsible for leading experimental work, data collection and analysis, working closely with the PI and collaborators. The post will be based at the University of Exeter in the internationally excellent Centre for Conservation and Ecology <https://www.exeter.ac.uk/cornwall/research-facilitiesandcentres/cec/>. The centre has a huge number of researchers working in ecology and evolution, including a large group of researchers working on host-parasite interactions (including Prof Angus Buckling, Prof Camille Bonneaud, Prof Edze Westra, Prof Robbie McDonald, Dr Alex Hayward and Dr Stineke Van Houte) and provides an exciting and stimulating research environment.

You can view the Job Description and Person Specification document here. < <http://www.admin.ex.ac.uk/personnel/jobs/T63835.pdf> >

The candidate will also have opportunities to spend time working in the labs of collaborators Prof Ronald Van Rij (Radboud Institute for Molecular Life Sciences, Nijmegen, the Netherlands <https://vanrijlab.org/>) and Dr Darren Obbard (University of Edinburgh, UK <http://obbard.bio.ed.ac.uk/>) to develop additional skills and experience.

Some relevant papers for the project from our groups are listed below: <https://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1004728>

<http://genesdev.cshlp.org/content/20/21/2985.long>  
<https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002210> Please highlight in your cover letter why you would like to work in our group ([www.benlongdon.com](http://www.benlongdon.com)), why you are interested in this project, and how your skillset/experience is relevant.

If you think you might be a great fit for this position but are unsure on whether you have relevant experience, please do not hesitate to get in touch before applying for confidential discussion about the role.

Informal enquiries strongly encouraged to Dr Ben Longdon, e-mail [b.longdon2@exeter.ac.uk](mailto:b.longdon2@exeter.ac.uk) (on leave atm but will try and respond in a few days).

– Ben Longdon University of Exeter Penryn Campus Cornwall TR10 9FE +44 (0) 1326 259460

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## UFlorida Gainesville PDForPhD FungalSystematics

PhD or Postdoc opportunity on bark&ambrosia beetles and fungi at the University of Florida Forest Entomology lab: systematics of the fungi, or molecular biology/genetics, or invasions. Fully funded, no prior experience with this system necessary. Details: <http://ambrosiasymbiosis.org/2019/03/looking-for-talent/> Jiri Hulcr, Associate Professor School of Forest Resources and Conservation University of Florida - Gainesville (&#43;1) 517-256-1894 Lab: [www.ambrosiasymbiosis.org](http://www.ambrosiasymbiosis.org) Connect: <https://twitter.com/JiriHulcr> Community: <https://www.facebook.com/groups/frassandnoodles> Tree health: <https://www.facebook.com/groups/SouthernTreeHealthDiagnostics/> “Hulcr, Jiri” <[hulcr@ufl.edu](mailto:hulcr@ufl.edu)>



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## UGeorgia PlantPopulationBiology

The Peterson lab (<http://www.plantbio.uga.edu/directory/people/megan-peterson>) is joining the Plant Biology Department at the University of Georgia and will be seeking applicants for a postdoc in plant population biology.

All populations must cope in one way or another with variable and unpredictable environments. Wild populations are also now experiencing rapid environmental change, altering selective environments and further challenging their persistence. The Peterson lab combines experiments, long-term observational data, and models to investigate the evolutionary and demographic processes that determine how populations persist under variable conditions and how they can adapt to novel environments. The postdoc will have the opportunity to contribute to long-term research in demographic and phenological responses of arctic/alpine plants to climate change (<http://meganlpeterson.weebly.com/research.html>) as well as to develop new projects in collaboration with the PI and other lab members and collaborators. Potential areas of research include: 1) the role of local adaptation vs. phenotypic plasticity in shaping species' responses to climate change, 2) the demographic consequences of advancing phenology and changing plant-pollinator interactions, and 3) incorporating evolutionary potential into forecasts of species' range shifts.

The ideal candidate will have broad training and interests in plant population biology, including expertise in both field/greenhouse experiments as well as with quantitative analysis and modeling methods. Desired skills include: programming and statistical analysis in R (generalized linear models, mixed and hierarchical models), experience with demographic data collection and modeling (PVA, matrix models, IPMs, stochastic demography), and experience in one or more of the following areas: pollination biology, distribution modeling, and/or genomics.

The position is available starting as soon as spring 2020 with a flexible start date (summer or fall 2020), and competitive salary and benefits. The University of Georgia has a large and highly interactive group of plant biologists and evolutionary ecologists (<https://www.plantbio.uga.edu/>). Athens is a vibrant university community close to Atlanta with exceptional

music, food, and natural areas to enjoy (<https://www.admissions.uga.edu/experience/athens/>).

Interested candidates should contact Megan Peterson ([megan.peterson@colorado.edu](mailto:megan.peterson@colorado.edu)) with a CV, 2 representative publications or preprints, and a brief description (~1 page) of your background and research interests. Please also include the names and contact information for up to three references. Applications should be submitted by October 25 for full consideration.

Megan Lynn Peterson  
<Megan.Peterson@Colorado.EDU>

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## ULausanne QuantTraitVariation

Postdoctoral position in Theoretical Evolution and Ecology at the University of Lausanne

The Mullon lab in the Department of Ecology and Evolution at the University of Lausanne, Switzerland, is recruiting a postdoctoral researcher to develop new theory in evolutionary genetics and evolutionary ecology using mathematics and/or computational methods. The project is flexible and will relate to understanding the genetic and ecological bases of variation in quantitative traits, with specific interest in social traits, such as aggression, cooperation, resource utilization or mating behavior.

The position is fully funded. Salary and benefits are internationally highly competitive. Additional funding for consumables, computing, and to attend international conferences is available. Support for the position comes from a recent SNSF Eccellenza award (PCEFP3.181243).

Job information

Expected start date: 01.03.2020 or to be agreed  
Contract length: The initial contract is for one year and is extendable to a total of 3 years. Activity rate: 100%  
Workplace: Department of Ecology and Evolution, University of Lausanne, Dorigny, Switzerland

Your qualifications

Candidates need to have a PhD in a relevant area before the start date of their position. The successful candidate will have experience in mathematical or computational modeling, keen interests in ecology and evolution, and a record of publication that reflects the ability to conduct original and independent research. A high level of written and spoken English proficiency is required.

### Your application

Please, send your full application in PDF by email to Charles Mullon (charles.mullon@unil.ch). Review of applications will begin immediately and continue until the position is filled. Your application should include: \* Cover letter, including research interests \* Curriculum vitae including the names and contact details of 2-3 references \* PhD thesis summary (max. one page)

For more information on the department of Ecology and Evolution, please consult <https://www.unil.ch/dee/en/home.html> For more information on the University of Lausanne, please consult <https://www.unil.ch/central/en/home.html> For additional information regarding the position, please contact Charles Mullon (charles.mullon@unil.ch).

Charles Mullon Assistant Professor Department of Ecology and Evolution University of Lausanne charles.mullon@unil.ch

Charles Mullon <charles.mullon@unil.ch>

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### ULiverpool EvolGenMelanism

RECURRENT EVOLUTION OF INDUSTRIAL MELANISM IN THE PEPPERED MOTH A PDRA with expertise in computational population genetics, statistics and informatics is required to join the research team of Prof Ilik Saccheri (University of Liverpool, Department of Evolution, Ecology & Behaviour), working on the evolutionary genetics of industrial melanism in the peppered moth (*Biston betularia*). Your primary responsibility will be to identify sequence variation causing melanism in continental European populations, to estimate the age of these different alleles from patterns of linkage disequilibrium, and to make inferences about their spatial spread. You will also study the effect of forest age and heterogeneity on the frequency distribution of melanic morphs. You should have a PhD in Biological Science, Statistics or other relevant subject. This NERC-funded 3-year post is available to start asap in 2020. Salary range: 34,805 - 39,152 pa. Informal enquires to saccheri@liv.ac.uk. Further details via <https://recruit.liverpool.ac.uk> (job ref 013063). Closing date 03/12/2019.

“I.J.Saccheri@liverpool.ac.uk”  
<I.J.Saccheri@liverpool.ac.uk>

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### UmeaU Bioinformatics ClimateChangeBiodiversity

The Department of Ecology and Environmental Science (Umeå University, Sweden) invites applicants for a postdoctoral position focused on analyzing time series of shotgun metagenomics data aiming at understanding climate impact on boreal forest trees. Application deadline is 15th Nov. 2019.

The appointment is for 2 years (full-time employment). The employment is planned for a start late 2019 or early 2020.

Please see more details using the link: <https://www.umu.se/en/work-with-us/open-positions/-postdoctoral-position-2-years-in-bioinformatics-impact-of-climate-change-on-flowering-and-diversity-of-boreal-forest-trees.288150/> We welcome your applications! Per Stenberg, Johanna Leppälä, Xiao-Ru Wang

Xiao-Ru Wang <xiao-ru.wang@umu.se>

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### UMinnesota CropPlantGenomics

Post-doctoral position available in Springer research group at the University of Minnesota

A post-doctoral research associate position is available in the laboratory of Nathan Springer (<https://maizeumn.github.io/>) at the University of Minnesota. The Springer group uses classical genetic and genomic approaches to study basic aspects of genetics in crop plants. We seek to utilize genome, transcriptome and epigenome information to understand the sources of heritable variation. On-going research projects involve local collaborations at the University of Minnesota (Candice Hirsch translational genomics; Feng Zhang genome editing; Chad Myers computational systems biology) and with research groups at other institutions to provide training in collaborative research and multiple disciplines. Post-doctoral researchers are also given freedom and support to develop their own research ideas that are complimentary to ongoing projects.

A post-doctoral researcher is sought to participate in on-going research to study the role of chromatin modifications and accessibility in gene regulation in maize. We are actively using genome editing approaches to complement studies of natural variation to understand the role of DNA methylation in regulating transposon and gene expression. We are interested in understanding both the epigenetic and genetic influences on DNA methylation patterns and how variation in DNA methylation contributes to phenotypic variation and genome stability in maize. On-going work is also investigating the uses of DNA methylation profiling in crop species to improve annotations of functional elements in complex genomes. There are also opportunities to participate in research projects focused on understanding the cis-regulatory elements important for abiotic stress response in maize and developing approaches for using gene regulatory networks in crop improvement.

A Ph.D. degree in genetics, genomics, plant biology, bioinformatics or a related field is necessary. Experience in genomics and bioinformatics is preferred but not required. To formally apply please visit <https://humanresources.umn.edu/jobs>, search for job ID# 334055 and upload your materials. You can directly contact Nathan Springer ([springer@umn.edu](mailto:springer@umn.edu)) with any inquiries about the position. The University of Minnesota is an equal opportunity educator and employer.

Nathan Springer <[springer@umn.edu](mailto:springer@umn.edu)>

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## 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.

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.

For inquiries about the position and research focus, please contact Candice Hirsch ([cnhirsch@umn.edu](mailto: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](mailto:cnhirsch@umn.edu)).

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Suzanne McGaugh <[smcgaugh@umn.edu](mailto:smcgaugh@umn.edu)>

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## UNebraska PopulationBiology

The University of Nebraska-Lincoln is seeking applications for a 2-year postdoctoral position in the Population Biology Program of Excellence.

The goal of the Population Biology-POE Postdoctoral Fellowship is to stimulate synergistic interactions between faculty and postdoctoral scholars broadly interested in the area of Population Biology. We are seeking applicants who have recently completed, or will soon complete, their PhD and who conduct cutting edge research related to faculty research areas in the Ecology, Evolution & Behavior (EEB) section in the School of Biological Sciences (<https://biosci.unl.edu/research-areas>). POE postdoctoral fellows pursue a research program under the sponsorship of an EEB faculty member and are expected to promote interactions among faculty at UNL, serve as a model for graduate students in career development, and enhance graduate education. While in residence, the postdoctoral fellow is expected to lead a seminar, symposium or outreach project that will appeal to Population Biologists across campus. Interested candidates should submit a CV, a 1-page description of previous or current research and a 2-3 page description of proposed research, and arrange for two recommendation letters from non-UNL faculty and one recommendation

letter from the UNL faculty sponsor (a total of 3 letters) to be emailed to the address below. The research proposal should be developed in collaboration with the proposed faculty sponsor. The successful applicant must have completed their degree by the start date. Priority will be given to applicants who are new to UNL. EEB faculty at UNL are highly integrative and collaborative, using a wide array of approaches and study systems to study a diverse set of biological questions, from the molecular determinants of adaptation and speciation to multimodal animal communication to the community ecology of extinct mammals to the ecology and evolution of infectious disease. Lincoln is consistently rated as one of the best places to live in America, with a low cost of living, over 130 miles of bike trails throughout the city, and a vibrant restaurant and music scene.

Application materials should be emailed to: Dr. Clay Cressler at: [ccressler2@unl.edu](mailto:ccressler2@unl.edu). The subject line should read "Population Biology Post-doc application". Applications should be received by December 15, 2019. The expected salary will be \$45,000 per year. We anticipate notifying the successful applicant by January 31, 2020, with a starting date on or about September 1, 2020. We strongly encourage applications from women and members of minority groups. The University of Nebraska is committed to a pluralistic campus community through affirmative action, equal opportunity, work-life balance, and dual careers. We assure responsible accommodation under the Americans with Disabilities Act.

Clay Cressler

Assistant Professor University of Nebraska'VLincoln School of Biological Sciences MANT 424, UNL, 68588-0118 <http://cressler.weebly.com> 402 890 7300

Clay Cressler <[ccressler2@unl.edu](mailto:ccressler2@unl.edu)>

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## UPennsylvania EvolutionCellDifferentiation

Postdoctoral Positions in Single Cell Biology and Evolution at University of Pennsylvania

A postdoctoral position is available in the laboratory of Junhyong Kim at University of Pennsylvania, School of Arts and Sciences. We are pursuing multiple single cell biology projects concerning genomics and evolution of cell differentiation and cell diversity. We are actively developing novel technologies including sub-cellular transcriptomics, new machine learning methods,

and models of system function to examine the functional identification of cell phenotypes and RNA biology of individual cells. More information is found in <https://-csg.sas.upenn.edu> and <http://kim.bio.upenn.edu>. Our group tightly integrates both computational modeling and experimental approaches. We especially value a broad interdisciplinary outlook, an ability to work well with others, and interest in theory and concepts. The postdoctoral fellow will have a variety of projects to choose from including neuro-cell biology, mitochondrial genetics, kidney regeneration, and opportunities to develop their own projects.

Expertise is desired in one or more of evolutionary biology, molecular biology, genomics, and computational biology.

Please send to [Junhyong@sas.upenn.edu](mailto:Junhyong@sas.upenn.edu): (1) cover letter describing interest in the position and future research interests (not to exceed one page); (2) CV; (3) names and contact information for three references.

"Fisher, Stephen A" <[safisher@sas.upenn.edu](mailto:safisher@sas.upenn.edu)>

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## UppsalaU EvolutionaryGeneticsPlasticity

Position as a postdoctoral researcher in evolutionary ecology and genetics at the Department of Ecology and Genetics at Uppsala University, Sweden. The project will be carried out in the research groups of Dr. David Berger and Prof. Göran Arnqvist at the Animal Ecology program.

Project description: We are interested in understanding the evolution of niche width and adaptive phenotypic plasticity in gene expression with specific application to insect host use and colonization. Potential projects include (but are not limited to):

(i) Species vary widely in their use of resources. When it comes to host use, some species are specialists, narrowly exploiting only but a few very similar hosts, and some are generalists and able to use a wide repertoire of hosts, often differing in both chemistry and the microecological niche they provide. What drives and limits such adaptation? The aim is to get a better understanding of the possibilities and limitations to host use and niche evolution by comparing phenotypic plasticity in gene expression among related species of bruchid beetles that differ in their host plant repertoire (i.e. "comparative genomics").



(ii) Some pest species have rapidly been able to colonize new hosts, with sometimes knock-on effects in the ecosystem and substantial economic costs for agriculture. What is the molecular genetic basis for such rapid adaptation? Another aim of the project is to study rapid genetic changes and divergence in phenotypic plasticity in gene expression in response to host use in the seed beetle *Acanthoscelides obtectus*. This will be done by comparing plasticity in ancestral populations and long term experimental evolution lines specialized to a novel host.

(iii) What is the functional molecular genetic basis of adaptive changes in digestive enzymes?

(iv) How does phenotypic plasticity and genetic adaptation to hosts affect responses to other environmental factors?

The detailed and final research plan will be developed in collaboration with the successful candidate and tailored to match her/his individual interests and strengths.

Qualifications required: The successful candidate must have a PhD, or an exam which is judged comparable to a PhD, in evolutionary ecology or molecular biology/genetics. In the former case, a documented experience using molecular tools and analyses of genomic data is requested. In the latter case, a serious and documented interest in ecology and/or evolutionary biology is requested. Candidates must be able to express themselves with high proficiency in spoken as well as written English. To be eligible the candidate must have a PhD degree, or a foreign degree equivalent to this, completed less than three years before the application deadline. The three year period can be extended due to circumstances such as sick leave, parental leave, duties in labour unions, etc.

Qualifications desired: We seek candidates with a documented expertise in acquiring, managing and analysing genomic data. Experience of tackling problems relating to the evolution of niche width and phenotypic plasticity is a strong merit. Because the holder of this position will collaborate and interact closely with several group members, we will put emphasis on both independence and ability to collaborate. Experience with analyses tools and programming language suitable for treatments of genomic data is desirable.

Working environment: Our labs are part of the Department of Ecology and Genetics (IEG) (<http://www.ieg.uu.se/animal-ecology/>) that excels in many aspects of ecology, genetics and evolution and offers an inspiring and vibrant international atmosphere. The Department of Ecology and Genetics (IEG) is an international environment with staff and students from all

over the world. For more information, see [www.ieg.uu.se](http://www.ieg.uu.se). The IEG is situated within the Evolutionary Biology Centre at Uppsala University, which is one of the world's leading research environments in evolutionary biology. The working atmosphere is truly international with a regular recruitment of PhD students and post-docs from abroad. The EBC is part of Uppsala University - the oldest university in Scandinavia - which has approximately 40.000 students and has been top ranked among European Universities in the subject of biology (CHE European ranking). The city of Uppsala is a lively college town, less than an hour's train ride away from Stockholm (and even closer to Arlanda international airport) with beautiful and easy accessible surroundings.

Position: Temporary full-time position for 24 months, according to central collective agreement.

Salary: Individual salary with full social benefits.

Starting date: 2020-01-15 or as otherwise agreed.

The application should include:

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## USunshineCoast UrbanAdaptation

20 months position at the University of the Sunshine Coast, Australia, in the Frere lab ([www.celinefrerelab.com](http://www.celinefrerelab.com)).

We have multiple longitudinal datasets with behaviour, ecology and genetics to understand consequences of urbanisation on species including disease (dragons and koalas).

See [https://uscjobs.usc.edu.au/-psc/cg/EMPLOYEE/USC\\_CG/c/-HRS\\_HRAM\\_FL.HRS\\_CG\\_SEARCH\\_FL.GBL?FOCUS=Applicant&SiteId=1&](https://uscjobs.usc.edu.au/-psc/cg/EMPLOYEE/USC_CG/c/-HRS_HRAM_FL.HRS_CG_SEARCH_FL.GBL?FOCUS=Applicant&SiteId=1&) for specifics.

Celine Frere PhD #SuperstarsofSTEM Senior Research Fellow Office: KDM2 Faculty of Science, Health, Education and Engineering University of the Sunshine Coast 90 Sippy Downs Drive Sippy Downs Queensland 4556 Australia mobile: 0423312893 work: 0754565415 [celinefrerelab.com](http://celinefrerelab.com)

USC, Locked Bag 4, Maroochydore DC, Queensland,



4558 Australia. CRICOS Provider No: 01595D

Celine Frere <cfre@usc.edu.au>

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## UWestFlorida MolecularEvolution

\*Job Title:\* Post-Doctoral Research Associate (12710T)

\*Location:\* Janosik Laboratory, University of West Florida (UWF), Pensacola, Florida

\*Salary:\* \$48,000

\*Job Description:\* The Janosik Laboratory in Department of Biology in the Hal Marcus College of Science and Engineering at the University of West Florida is seeking a full-time two-year Post-Doctoral Fellow with a research focus in molecular evolution, environmental DNA, metabarcoding, and bioinformatics. Applicants should be creative and independent, have good writing skills, a strong publication record, and have a demonstrated passion for evolutionary research and ecological genetics. The appointment can begin immediately and as a one-year appointment with possible extension to two years. Some field work is necessary.

Applicants will be expected to develop and lead projects. Candidates will be working on a funded environmental DNA project of metabarcoding of reef fish. Opportunities to explore other evolutionary projects with both Antarctic and Gulf of Mexico fishes and invertebrates will be encouraged.

Minimum qualifications are a Ph.D. from an accredited institution in Biological Sciences or a similar field of study with a demonstrated record of achievement in teaching, academic research, and service.

The ideal candidate would have strong laboratory skills, and with experience working with environmental DNA or metabarcoding in marine or freshwater systems and significant experience in using molecular tools and bioinformatics to tackle evolutionary and phylogenomic questions.

The University of West Florida is an Equal Opportunity/Access/Affirmative Action/Disabled/Veteran employer. Any individual requiring special accommodation to apply is requested to advise UWF by contacting UWF Human Resources at 1-850-474-2694 (voice) or 1-850-857-6158 (TTY). A criminal background check is required for successful candidates. E-Verify requirements may apply for employment in certain positions. All applications for employment at the University are

subject to Florida public records law.

Apply online at <https://jobs.uwf.edu/>. Be prepared to attach a letter of application/interest stating your areas of interest and career goals, a current C.V. with expected availability date and contact information for three individuals who will serve as references. The posting will remain open until filled with a preferred response date of 11/1/19.

Thank you! Alexis

Alexis M. Janosik, Ph.D. Associate Professor Biology Graduate Program Coordinator University of West Florida Department of Biology Biology Building Annex 58C, 104G 11000 University Parkway Pensacola, FL 32514 (850) 857-6033 <http://www.janosiklab.com/> Alexis Janosik <ajanosik@uwf.edu>

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## UWiconsin Madison ComputBiology

- What: Postdoctoral position in the intersection of genomics, data science, computational biology, statistics  
 - Where: Wisconsin Institute for Discovery at the University of Wisconsin- Madison (<https://wid.wisc.edu/>) - PI: Claudia Solis-Lemus' research involves the development of statistical models to answer biological questions, balancing biological interpretability, theoretical guarantees, and computational tractability. More details here: <http://crsl4.github.io/pages/news.html> - Research project: Open to discussion! Several opportunities in ongoing projects: phylogenetic networks, bayesian phylogenetic inference, high- dimensional highly-correlated regression models applied to genomic/biological data, neural networks/deep learning models to predict phenotypes like antibiotic-resistance, among others. Note: If you are more on the empirical side than the computational side, and would like to work with me, email me and we can include other faculty as co-advisor - Contact info here: <http://crsl4.github.io/-pages/about.html> Claudia Solis-Lemus Wisconsin Institute for Discovery Department of Plant Pathology University of Wisconsin-Madison <http://crsl4.github.io/> "solislemus@wisc.edu" <solislemus@wisc.edu> "solislemus@wisc.edu" <solislemus@wisc.edu>

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## UZagreb VirusEvolution

The Jezic lab at the University of Zagreb (Croatia, <https://www.pmf.unizg.hr/biol/marin.jezic>) are looking for a new postdoc to work on the “Dynamics of virus infection and mycovirus-mediated biological control of a fungal pathogen. The project utilises genomics and laboratory experiments to examine questions related to the hypovirus CHV-1, which is an important component of Chestnut Blight biocontrol within Europe. For full information see the ad: [https://euraxess.ec.europa.eu/jobs/458316?fbclid=IwAR2YYd087VqCae8vanK-RR5C2IJEH6n0cgVJagmfSbhL\\_98AYFQ63wUbI1k](https://euraxess.ec.europa.eu/jobs/458316?fbclid=IwAR2YYd087VqCae8vanK-RR5C2IJEH6n0cgVJagmfSbhL_98AYFQ63wUbI1k) Knowledge of Croatian is not required to successfully complete the project.

leigh <deborah.leigh@wsl.ch>

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## VirginiaTech MetabolicEvolution

The Draghi lab (<http://draghi.biol.vt.edu/>) in the Dept. of Biological Sciences at Virginia Tech is hiring a postdoctoral research associate to understand, simulate, and predict gene interactions in a bacterial model system for the evolution of metabolism. The post-doc will work directly with the PI to lead the development and application of simulations and the process of Bayesian inference based on data from grant collaborators. The successful applicant will also help design and analyze new experiments based on their results, including efforts to leverage the parametrized computational model to predict the outcomes of evolution experiments taking place in collaborators' labs. While working as part of a collaborative, NSF-funded project spanning four lab groups, the post-doc will have ample opportunities to create new methods for analyzing data from metabolomics and deep-sequencing assays, as well as to contribute to the directions and writing of further grant applications with this group. In addition to executing a portion of the funded proposal ([https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1714550](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1714550)), the post-doc will also be encouraged to develop their own side-projects and help mentor students in the lab. The initial period of funding is for one year. The PI will work closely

with the successful applicant to support their applications for continued funding and to support their career development.

Please see the full details and application link at the site below. <http://careers.pageuppeople.com/968/cw/-en-us/job/511613/postdoctoral-associate-cy> Jeremy A. Draghi, Ph.D. Assistant Professor, Dept. of Biological Sciences Virginia Tech Blacksburg, VA, 24060

Jeremy Draghi <jdraghi@vt.edu>

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## WashingtonU Biodiversity

Biodiversity Postdoctoral Fellowships at the Living Earth Collaborative

The Living Earth Collaborative, a partnership between Washington University, the Missouri Botanical Garden and the Saint Louis Zoo, was established to advance knowledge and protection of the world's biodiversity by supporting collaborative research and conservation efforts involving individuals from the three partner and other Saint Louis institutions. See <https://livingearthcollaborative.wustl.edu/> for more information on the Collaborative including a list of recently-funded projects and the 2019 cohort of postdoctoral fellows. As part of this effort, the Collaborative is pleased to announce the availability of three postdoctoral fellowships in the area of biodiversity research and conservation. Fellowships will be two years long, subject to review after the first year, with a starting date beginning June 1 'V September 1, 2019. Salary will be \$57,000 plus benefits, in addition to \$6,000 per year for research support.

LEC Postdoctoral Fellows will be an essential part of the Living Earth Collaborative and are expected to develop an independent research or conservation program that engages with multiple members of the Living Earth Collaborative Community's projects that involve LEC Biodiversity Fellows (<https://livingearthcollaborative.wustl.edu/about-us/researchers/>) from at least two of the partner institutions, one partner institution and Saint Louis University, or two departments at Washington University are particularly encouraged. In addition, fellows are expected to be an integral part of the Living Earth Collaborative by participating in and organizing events and interacting with the diverse LEC community. Applicants are encouraged to contact prospective mentors prior to application.

To apply: Applicants should submit, as a single file, a cover letter, a CV, a description of previous accomplishments (ca. 2 pages), and a description of proposed research/conservation activities (ca. 2 pages), including identification of mentors, who must be LEC Biodiversity Fellows. Documents should be uploaded to <https://jobs.wustl.edu/> specifying job # 45545. Applicants should also have three letters of recommendation sent to [livingearth@wustl.edu](mailto:livingearth@wustl.edu). Review of applications will begin December 1st and continue until the positions are filled.

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

Questions should be directed to: [livingearth@wustl.edu](mailto:livingearth@wustl.edu)  
 “Losos, Jonathan” <[losos@wustl.edu](mailto:losos@wustl.edu)>

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## WoodsHole MarineEvolution

### POSTDOCTORAL SCHOLARSHIPS,— 2020-2021 Woods Hole Oceanographic Institution

Scholarships are available to new or recent doctoral graduates in diverse areas of research. Applications will be accepted from doctoral recipients with research interests associated with the following departments. Applicants who wish to conduct research on topics of general interest to one or more of the Departments are encouraged to apply. Interdepartmental research, including with the Marine Policy Center, is also encouraged.

The Departments are:

Applied Ocean Physics & Engineering Biology Marine  
 Chemistry & Geochemistry Geology & Geophysics Physical  
 Oceanography

A joint USGS/WHOI award will be given to a postdoc

whose research is in an area of common interest between USGS and WHOI Scientific Staff. The individual will interact with both USGS and WHOI based advisors on their research.

**PROGRAM** These awards carry special recognition at the Institution. Each recipient is encouraged to pursue his or her own research interests in association with a member of the resident staff. Each awardee is provided with office and laboratory space in close proximity to an appropriate member of the resident staff who acts as sponsor and general advisor throughout the award period.

**ELIGIBILITY** New or recent recipients of a doctoral degree with interests in the oceanographic sciences or engineering are eligible. Usually, scientists with more than two to three years of postdoctoral experience are not considered eligible for these awards.

**STIPEND** Scholarships are awarded for 18-month appointments. Successful applicants will receive a stipend of \$61,200 per year, relocation and health and welfare allowances, as well as a modest research budget. **APPLICATION** Completed applications will be accepted up to October 15, 2019 for consideration for Postdoctoral Scholar Awards for 2020-2021. In addition to the application form, the following are required: a current CV or resume; a minimum of three non-WHOI recommendations; a concise statement describing research interests, in particular those that the applicant would like to pursue at the Woods Hole Oceanographic Institution, as well as more general career plans; and a brief synopsis of their doctoral dissertation. Announcement of awards will be made in December.

**TENURE** Recipients of awards can initiate their study and research period at the Institution any time after January 1, 2020 and before December 1, 2020.

Further information and application forms may be obtained through the Academic Programs section of the WHOI web pages at <http://www.whoi.edu/postdoctoral>, or by contacting: The WHOI Postdoctoral Coordinator Telephone: (508) 289-2950 Û E-mail: [postdoc@whoi.edu](mailto:postdoc@whoi.edu)  
 Jed Goldstone <[jgoldstone@whoi.edu](mailto:jgoldstone@whoi.edu)>

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## WorkshopsCourses

AsiaPacific AgriculturalGenomics June20 ..... 145	Crete ComputationalMolEvol May10-21 Reminder 151
Barcelona IntroGWAS Nov25-29 ..... 146	KlosterLehlin Germany EvolutionResistance Aug24-28 151
Berlin 16SMetabarcoding Mar9-13 ..... 147	Online LandscapeGenetics Jan-May ..... 152
Berlin AdvancedPython Nov11-15 ..... 147	Poland GeometricMorphometrics Mar30-Apr3 .... 153
Berlin DataVisualization Dec9-13 ..... 148	SanDiego DomesticationGenomics Jan11-15 ..... 153
Berlin GWAS Mar2-6 ..... 148	SanDiego PopConservationGenomics Jan11-15 ... 154
Berlin LandscapeGenomics Nov25-29 LastCall .... 149	Sydney PlantEvolution Apr1-10 ..... 154
Berlin RNASeq Nov11-15 ..... 150	
CornellU NY SLiMEvolutionaryModeling Jan13-17 150	

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### AsiaPacific AgriculturalGenomics June20

Dear colleague

We are currently collecting Expressions of Interest for our Empowering agricultural research through (meta)genomics series. The (brackets) means we treat eukaryotic genomics and prokaryotic genomics equally :-)

Previously held at the Bangkok campus of the prestigious Kasetsart University, Empowering agricultural research through (meta)genomics will now rotate to another country that touches the Pacific ocean, with Vietnam as one nominated location.

We try to be different: \* This advanced workshop follows our unique format of combining wet- laboratory techniques with scientific exploration and bioinformatics analysis. \* We value networking and professional skill development. We include a Research Seminar day participants can request to submit an oral or poster presentation. \* We also stream biologists and bioinformaticians so they can learn with their peers and focus on furthering their own expertise. \* Our main role is not to teach but facilitate bring world experts (established or emerging) from Asia Pacific and work together with the local culture. \* We are passionate about equity (nationality, gender, and career stage) and are striving to make a change in our region. \* We are all unpaid volunteers so the costs are kept minimal.

In 2019, about 35% and 45.9% of our teachers and students respectively identified as female and I hope we

can do much better next time. Of the joint student and teacher pool, about 18% identified as a minority in their country of residence and 70% where either students or post-docs up to 5 years out of their PhD.

Are you interested in attending as a student or becoming a teacher? Then please register your Expression of Interest here: <https://forms.gle/c5khWV7SgPhzuaYE6>

Please complete the form by the 10th of October. It's free and short!

You can nominate topics of interest and maybe we can even organise an event at your home country.

You can see information for the previous workshop here: [https://thegeneschool.org/ku\\_workshop\\_2019](https://thegeneschool.org/ku_workshop_2019) With our final report due end of October / mid November.

Many thanks, alexie

—  
Dr. Alexie Papanicolaou Researcher profile Senior Lecturer / Assistant Professor in Bioinformatics Hawkesbury Institute for the Environment—

P: +61(0) 2 4570 1385 | M: +61 (0) 46 85 81 247 A:—Hawkesbury Campus, L3.G07, Richmond 2753 M: Locked Bag 1797, Penrith, NSW 2751, Australia Virtual Office: <https://uws.zoom.us/my/alpapan> PGP-key fingerprint: 35410C52CEE74AC2A405BDF92EBE0615C21F009A

Australian Academy of Sciences EMCR Executive: Lifting the EMCR sector for Science and its People

Reviewer for Athena Swann: Working for new Equity benchmarks for Australian Science

Associate Editor for - Publish your next—Concepts & Synthesis—paper—in—Science of Nature—(formerly

Naturwissenschaften EST'D 1913; Springer) - Publish your next genomics work at Genomics (Elsevier) - Make your research accessible at PLoS ONE

On collaboration: - One can only do so much, but together one can do so much more

On the rise of AI - It's already here

On supervising— - PhD students: Work with someone to explore a phenomenon that fascinates them using your methods - Post-docs: Work with someone to explore a phenomenon that fascinates you using their methods - Nights & weekends: Work with family/cat to let you explore a phenomenon that fascinates you using your methods

“A.Papanicolaou@westernsydney.edu.au”

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## Barcelona IntroGWAS Nov25-29

Dear colleagues, New Transmitting Science course:

INTRODUCTION TO GWAS (GENOME-WIDE ASSOCIATION STUDIES).

Dates: November 25th-29th, 2019.

Instructor: Dr. Gerard Muntan (Universitat Rovira i Virgili, Spain).

Place: Capellades, Barcelona (Spain) Registration and more information: <https://www.transmittingscience.org/courses/genetics-and-genomics/introduction-to-genome-wide-association-studies/> Overview Genome-wide association studies have become increasingly popular to identify associations between genetic risk factors and phenotypic traits. This introductory course is addressed to medical students, social scientists and biologists without formal training in the field. The aim of the course is to provide a guideline for conducting genetic analyses. In addition to the illustration of the standard GWAS process, we will also show how to perform functional enrichment and apply polygenic risk score (PRS) analysis in order to provide individual level scores of genetic risk. A mix of theoretical background and hands-on experience will walk students through a series of increasingly complex data manipulation and visualization tasks. These exercises will be based on PLINK, PRSice, and R, among others, which are commonly used, freely available software tools that are accessible for novice users. This course is organized by Transmitting Science. Please feel free to distribute this information

between your colleagues if you consider it appropriate.

Best wishes

Sole Soledad De Esteban-Trivigno, PhD Scientific Director Transmitting Science [www.transmittingscience.org](http://www.transmittingscience.org)  
soledad.esteban@transmittingscience.org

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## Berlin 16S Metabarcoding Mar9-13

Course “16 S/ITS Metabarcoding of microbial communities”

<https://www.physalia-courses.org/courses-workshops/course30/> When: 9-13 March 2020

Where: Free University (FU) Berlin (Germany)

Instructors:

Dr. Anna Sandionigi (University of Milan Bicocca, Italy)

Dr. Xavier Harrison (University of Exeter, UK)

Dr. Bruno Fosso (Institute of Biomembrane, Bioenergetics and Molecular Biotechnologies, CNR, Italy)

This course will provide a thorough introduction to the application of metabarcoding techniques in microbial ecology. The topics covered by the course range from bioinformatic processing of next-generation sequencing data to the most important approaches in multivariate statistics. Using a combination of theoretical lectures and hands-on exercises, the participants will learn the most important computational steps of a metabarcoding study from the processing of raw sequencing reads down to the final statistical evaluations.

Learning Outcomes:

- 1) Understanding the concept, potential and limitation of microbial metabarcoding techniques.
- 2) Learning how to process raw sequencing reads to obtain meaningful information.
- 3) Obtaining experience on how to statistically evaluate and visualize your data.
- 4) Being able to make informed decisions on best practices for your own data.

For more information about the program, please visit our website: <https://www.physalia-courses.org/courses-workshops/course30/> Here is the full list of our courses and Workshops: <https://www.physalia-courses.org/>



[courses-workshops](#) Should you have any questions, please feel free to contact us: [info@physalia-courses.org](mailto:info@physalia-courses.org)

Best regards,

Carlo

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[<info@physalia-courses.org>](mailto:info@physalia-courses.org)

## Berlin AdvancedPython Nov11-15

Course: Advanced Python for biologists

Where: Free University Berlin (Germany)

When: 11-15 November 2019

Instructor: Dr. Martin Jones (founder Python for biologists)

This course is aimed at people who already have a basic knowledge of Python and are interested in using the language to tackle larger problems. In it, we will look in detail at the parts of the language which are particularly useful in scientific programming, and at the tools Python offers for making development faster and easier. The course will use examples and exercises drawn from various aspects of bioinformatics work. After completing the course, students should be in a position to (1) take advantage of the advanced language features in their own programs and (2) use appropriate tools when developing software programs.

Programme: ( <https://www.physalia-courses.org/courses-workshops/course12/curriculum-12/> )

Complete list of our courses and Workshops: ( <https://www.physalia-courses.org/courses-workshops/> )

All the best, Carlo

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## Berlin DataVisualization Dec9-13

Dear all,

this December we will run two courses at the Free University (FU) Berlin (Germany), that might be of your interest:

1) 5-day course on Data Visualization in-depth (9-13 December): <https://www.physalia-courses.org/courses-workshops/course54/> In this week-long course, you will learn how to design visualisations such as charts, maps and interactive graphics, which bring insight and understanding to your audience. You will learn about perception, the design process and the tools that you can use to make visualising easy. The course is highly interactive with group exercises throughout. There will be two versions: for those who wish to practice some coding, for example with R, and for those who wish to work on paper throughout. In the last two days, participants in their groups will carry out a larger “project”, where we present real-life data with a briefing from a researcher. The challenge will be to produce some visualisations and pitch them to the researcher on the last day, with feedback on your project work.

2) 3-day course on RMarkdown (9-11 December): <https://www.physalia-courses.org/courses-workshops/course57/> This course is designed for academics and graduate students with an interest in reproducible research using Rmarkdown. We will cover all of the important techniques for generating elegant, reproducible documents in a wide variety of formats. A strong emphasis on hands-on exercises means that attendees will get ample opportunities to generate their own documents and gain experience of producing advanced and sophisticated documents using Rmarkdown.

Here you can find the complete list of our courses and Workshops: [ <https://www.physalia-courses.org/courses-workshops/> ]( <https://www.physalia-courses.org/courses-workshops/> )

Should you have any questions, please feel free to contact us: [info@physalia-courses.org](mailto:info@physalia-courses.org)

All the best, Carlo

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“info@physalia-courses.org”  
courses.org>

<info@physalia-

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## Berlin GWAS Mar2-6

Introduction to genome-wide association studies (GWAS)

( <https://www.physalia-courses.org/courses-workshops/course49/> )

Where: Free University (FU) Berlin (Germany)

When: 2-6 March 2020

General Topic: Bioinformatics pipeline for GWAS analysis

Instructors: 1) Dr. Filippo Biscarini (CNR, Italy); 2) Dr. Oscar González-Recio (INIA, Spain); 3) Dr. Christian Werner (University of Edinburgh, UK)

### OVERVIEW

This course will introduce students, researchers and professionals to the steps needed to build an analysis pipeline for Genome-Wide Association Studies (GWAS). The course will describe all the necessary steps involved in a typical GWAS study, which will then be used to build a reusable and reproducible bioinformatics pipeline.

### FORMAT

The course is structured in modules over five days. Each day will include introductory lectures with class discussions of key concepts. The remainder of each day will consist of practical hands-on sessions. These sessions will involve a combination of both mirroring exercises with the instructor to demonstrate a skill as well as applying these skills on your own to complete individual exercises. After and during each exercise, results will be interpreted and discussed in group.

### TARGETED AUDIENCE & ASSUMED BACKGROUND

The course is aimed at students, researchers and professionals interested in learning the different steps involved in a GWAS study using them to build a structured pipeline for semi-automated and reproducible GWAS analyses. It will include information useful for both beginners and more advanced users. We will start by introducing general concepts of GWAS and bioinformatics pipeline building, progressively describing all steps and putting them seamlessly together in a general

workflow. Attendees should have a background in biology, specifically genetics; previous exposure to GWAS experiments would also be beneficial. There will be a mix of lectures and hands-on practical exercises using R, Linux command line and custom software. Some basic understanding of R programming and Unix will be advantageous. Attendees should also have some basic familiarity with genomic data such as those arising from NGS experiments.

### LEARNING OUTCOMES

\*Understanding the different steps involved in a typical GWAS analysis and how to build them together in a general workflow / bioinformatics pipeline

Programme: ( <https://www.physalia-courses.org/courses-workshops/course49/curriculum49/> )

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

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<info@physalia-courses.org>

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## Berlin LandscapeGenomics Nov25-29 LastCall

Dear all,

we have the last places left on our Landscape Genomics (3rd edition) in Berlin (Free University (FU) Berlin - Gemany) this November (25th-29th).

Application deadline is: October 20th, 2019. Attendees are seated on a first-come, first-served basis.

### INSTRUCTORS :

- 1) Dr. Stéphane Joost (Lab of Geographic Information Systems (LASIG), EPFL, Lausanne, Switzerland)
- 2) Oliver Selmoni, MSc (Lab of Geographic Information Systems (LASIG), EPFL, Lausanne, Switzerland)

### Course overview

The course will provide an overview of the type of dataset that can be used for a landscape genomics analysis.

It 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.

Please visit our website to have more information about the course content: <https://www.physalia-courses.org/courses-workshops/course17/> Here is the full list of our courses and Workshops: ( <https://www.physalia-courses.org/courses-workshops/> )

Please feel free to contact us at: [info@physalia-courses.org](mailto:info@physalia-courses.org)

Best regards,

Carlo

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## Berlin RNASeq Nov11-15

Dear all,

we have the last 4 places left on our 5-day course “RNA-seq Analyses in non-model organisms”: ( <https://www.physalia-courses.org/courses-workshops/course2/curriculum2/> )

Where: Free University (FU) Berlin (Germany)

When: 11-15 November 2019

Instructors: Dr. Nicolas Delhomme and Bastian Schiffthaler (Umea Plant Science Center, Sweden)

### Course overview:

This course provides an overview of modern applications of transcriptome sequencing and popular tools and algorithms for exploring transcript reconstruction and expression analysis in a genome-free manner, leveraging the Trinity software and analysis framework. Attendees will perform quality assessment of Illumina RNA-Seq data, assemble a transcriptome using, among others, Trinity, quantify transcript expression, leverage Bioconductor tools for differential expression analysis, and apply Trinotate to functionally annotate transcripts. In parallel to the short-read assembly, participants will perform the pre-processing of 3rd generation sequencing data (PacBio IsoSeq) and the resulting assemblies will be compared. Additional methods will then be explored for characterizing the assembled transcriptome and revealing biological findings.

### Intended audience

This course is aimed primarily at biologist researchers that have basic bioinformatics skills and are pursuing RNA-Seq projects in non-model organisms. Attendees will gain skills needed to successfully approach transcriptome sequencing, de novo transcriptome assembly, expression analysis, and functional annotation as applied to organisms lacking a high quality reference genome sequence. Attendees are also invited to bring a subset of their own data.

### Teaching format

The course will be delivered over the course of four and a half days, with each session entailing lectures followed by practical hands-on sessions. Most computing will be done on the cloud and attendees will use their own laptop computers with the Google Chrome

web browser providing all the necessary interfaces to the cloud computing environment, including the linux command terminal. Attendees can also use the native terminal emulator of their Operating System (and ssh). This works natively for Linux, MAC and Windows 10. For Windows 7 users, installing MobaXTerm would be recommended.

For the full programme, please see: ( <https://www.physalia-courses.org/courses-workshops/course2/-curriculum2/> )

For the full list of our courses and Workshops, please see: ( <https://www.physalia-courses.org/courses-workshops/course11/> )

Should you have any questions, please feel free to contact us

Thanks and best regards, Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR info@physalia-courses.org <http://www.physalia-courses.org/> =0A=0ATwitter: @physacourses mobile: +49 17645230846 <https://groups.google.com/forum/#!forum/physalia-courses> info@physalia-courses.org

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**CornellU NY**  
**SLiMEvolutionaryModeling**  
**Jan13-17**

Hi all.

First of all, as background: SLiM is a software package for creating evolutionary models/simulations that are individual-based and genetically explicit. It is scriptable, flexible, fast, and includes an interactive graphical modeling environment. You can read more about it on its home page (<https://messerlab.org/slim/>).

January 13-17, 2020, a five-day SLiM workshop will be offered at Cornell University (Ithaca, NY, USA). It will be hosted by Philipp Messer, of Cornell University. It will be free, and open to participants outside of the university. HOWEVER, registration is required, a limited number of seats are available, and priority will be given to registrants affiliated with Cornell. To apply, please send an email to both Philipp and myself (messer@cornell.edu, bhaller@mac.com) with the info below. The deadline for applying is the end of the day on 22 November (late applicants may be considered if there is room).

For this workshop, your application email should include:

(1) your name, (2) your university or institutional affiliation, (3) a link to a research website or similar academic page, if you have one, (4) a 1-2 sentence description of your level of experience with SLiM and any other forward genetic simulation software, if any, (5) a 1-2 sentence summary of why you want to attend the workshop (i.e., the connection to your research), and (6) 1-2 sentences about any specific topics within SLiM that you hope to learn about in the workshop. Note that you will be responsible for your own lodging and your own transportation. Please do not apply to the workshop unless you are sufficiently serious that you will actually attend, if accepted. Note that acceptance will likely be first-come-first-served (apart from the priority for those from the hosting institution), so early application is advised.

The plan is to cover all the major topics in the SLiM manual, starting with lots of introductory material to get beginners up to speed with SLiM and its associated scripting language Eidos, and ending up at advanced topics like non-Wright-Fisher models, tree-sequence recording, continuous-space models, and nucleotide-based models. We won't cover everything in the manual "that would be overwhelming!" but we'll try to cover all the big topics. There will also be time for attendees to work on their own models with help from me, and we may also have time to explore some optional side topics that are of particular interest to those attending each workshop. The workshops will be taught principally using SLiMgui on macOS. Every attendee will need their own Mac laptop, but a limited number of Mac laptops should be available on-site for those who do not have one. (A Mac is required to run SLiMgui, which is necessary for teaching purposes.)

I'm hoping to continue doing workshops in future; if you would like to invite me to give a workshop at your institution, please send me an email (off-list).

Cheers,

Benjamin C. Haller Messer Lab Cornell University

bhaller@mac.com

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**Crete ComputationalMolEvol**  
**May10-21 Reminder**

Dear Community,

This is a reminder that the 12th summer school on Computational Molecular Evolution organized by Zi-

heng Yang, Alexis Stamatakis, Adam Leaché, and me, will take place from May 10 - 21 2020 in HCMR Crete, Greece again.

Please visit the course web-site for further details:

<http://meetings.embo.org/event/20-comp-evolution>  
Applications are open until 18th November 2019.

Please feel free to circulate this message.

Aglaia (Cilia) Antoniou

Dr. Antoniou Aglaia (Cilia) Institute of Marine Biology, Biotechnology and Aquaculture (IMBBC) Hellenic Centre for Marine Research (HCMR) Gournes Pedidos, P.O.Box 2214, 71003, Iraklio, Crete, Greece Tel.: &#43;30 2810 337826 Fax: &#43;30 2810 337820

Cilia Antoniou <antoniou@hcmr.gr>

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### KlosterLehnnin Germany EvolutionResistance Aug24-28

Ecological immunology workshop 2020: evolution of resistance, tolerance & symbionts, 24-28 Aug 2020

We are happy to announce a meeting that we're organising from 24-28 Aug 2020: Ecological immunology workshop 2020: resistance, tolerance & symbionts to be held at Kloster Lehnin, close to Berlin, Germany.

The meeting is the next instalment in a loose series of workshops on ecological & evolutionary immunology / insect immunity, that started in 2001 in Sheffield, the most recent one being in Blossin (close to Berlin) in 2017. These meetings bring together researchers with different backgrounds but with a shared interest in immunity and host-microbe interactions with a focus on insects, and where we encourage the presentation of unpublished results.

The hallmark of these workshops, is the open atmosphere fostering free exchange by keeping it an affordable, small conference (~85 participants). The format consists of invited speakers, contributed talks and a dedicated poster session. Long breaks provide plenty of opportunity for informal exchange. Past workshops have initiated new collaborations and ideas focusing on frontier research that has not been published.

The premises are basic but in a beautiful location conducive to the success of the meeting. We will be located at a lakeside, which at this time of the year offers great swimming and canoeing, and a small private bar at the

harbour.

Confirmed invited speaker so far: Alex Best (University of Sheffield, UK) Nicholas Buchon (Cornell University, USA) Delphine Destoumieux-Garzon (University of Montpellier, France) Laura Flórez (University of Mainz, Germany) Bruno Lemaitre (EPFL Lausanne, Switzerland) Jessica Metcalf (Princeton University, USA) Charlotte Rafaluk-Mohr (Free University Berlin, Germany) Mike Strand (University of Georgia, USA) Élio Sucena (Gulbenkian Institute, Portugal) Pedro Vale (University of Edinburgh, UK) Heiko Vogel (Max-Planck Institute for Chemical Ecology, Jena, Germany) Bregje Wertheim (Groningen University, The Netherlands) Anna Zaidman-Remy (Insitute National de Sciences Applicée, Lyon, France)

Important dates: Registration will open in early January 2020? The deadline for abstract submission is: 28th Feb The deadline for final resistration is 8th April

As soon as a webpage and more details are available we will send the link around.

Best wishes from the organisers

Sophie Armitage & Jens Rolff (FU Berlin)

Jens Rolff <jens.rolff@fu-berlin.de>

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### Online LandscapeGenetics Jan-May

Online Landscape Genetics Graduate Student Course Jan 15 - May 6, 2020, Wed 8:30 - 10:30 PST (also can be taken at any time using taped lectures) Cost \$500 individuals, \$1000 Groups Course Organizers: Helene Wagner, Melanie Murphy, and Lisette Waits Co-Instructors: Niko Balkenhol, Jeff Bowman, Anne Charpentier, Katalin Csilléry, Marie-Josée Fortin, Caren Goldberg, Nusha Keyghobadi, Erin Landguth, Stephanie Manel, Yessica Rico, Sean Schoville, Steve Spear, Kathy Zeller

Course description This course on Landscape Genetics provides a unique opportunity for interdisciplinary training and provides an overview of the field of landscape genetics. The course caters to students in basic and applied ecology, conservation and population genetics, landscape ecology, evolutionary biology and conservation biology. A key objective of landscape genetics is to study how landscape modification and habitat fragmentation affect organism dispersal and gene flow across the landscape. Landscape genetics requires highly interdisciplinary specialized skills making intensive use of



technical population genetic skills and spatial analysis tools (spatial statistics, GIS tools and remote sensing). Even when students receive disciplinary training in these areas, educational programs often lack the necessary linkage and synthesis among disciplines. This linkage can only be accomplished after experts from each discipline work together to develop guiding principles for this new research area. Landscape Genetics will be concurrently offered at multiple universities across the globe, giving students the opportunity to learn from international experts and work with peers from outside institutions. For students who are not members of the participating institutions, we are offering a web-based online course to reach a broader audience. Each course meeting will start with a live web-cast lecture (no special software required) by an expert on the topic that introduces foundations and methods and highlights points for discussion in local seminar groups. After breaking out into local course group discussion (including a discussion group for online course students), a web-based discussion across campuses will wrap up the weekly topic. Students who are unable to make it to live-cast of lectures can view taped lectures. In addition, students can choose to participate in an optional lab section using R and/or interdisciplinary group term projects with web-based collaboration across institutions. The final two options are provided to help students develop analytical skills in Landscape Genetics. Students who participate in group projects will have the option of applying to attend a project synthesis meeting in Toronto Canada in May 13-17 2020 after the IALE North America meetings. See more information here: <https://sites.google.com/site/landscapegeneticscourse/> Course Textbook: Landscape genetics: Concepts, methods, applications. 2015. Balkenhol, Cushman, Storfer, Waits, eds, Blackwell.

How to register?

Use this link: [https://docs.google.com/forms/d/e/1FAIpQLScw\\_Ipr\\_7x7xysH0UMzMe34N-om0iWbAtVO2AfXghQdzi2Zg/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLScw_Ipr_7x7xysH0UMzMe34N-om0iWbAtVO2AfXghQdzi2Zg/viewform?usp=sf_link)

Faculty who would like to add a local section of the course at their university can register as a group or multiple students at one institution can register as a group. For faculty who set up local sections, we would expect you to set up course credit at your institution, participate in the course with the students and grade assignments (we provide answer keys for assignments). For individual students or students in small groups (<4) without a local instructor) who need course credit, you can have your advisor set up an independent study course at your home institution and turn in specific assignments during the semester that will be evaluated by our online instruction team. This can be set up as pass/fail or grading on A-F scale. It is easiest for us if

you pick the pass/fail option. In the US system, this would count as a 2 credit course for the lecture portion, and students who choose to do all labs or participate in a group project would receive an additional credit.

You will be invoiced for the course in early January and can pay by credit card or check.

Class Schedule:

Overview section Jan 15 - Introductions and overview of landscape genetics (Spear) Theoretical Background section Jan 22 - Landscape ecology (Zeller) Jan 29 - Population genetics (Waits) Feb 5 - Metapopulation dynamics (Keyghobadi) Feb 12 - Study design (Fortin) Feb 19 - Adaptation and quantitative genetics (Charpentier) Feb 29 - Basics of spatial data analysis (Wagner) Students read one background paper (generally book chapter) and watch tutorials if needed Advanced Topics Section

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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>

## Poland GeometricMorphometrics Mar30-Apr3

Dear all,

Physalia-courses in collaboration with the University of Lodz (Poland) is organising two courses in Poland next year:

1) Introduction to statistics in R - 13-16 January 2020 - University of Lodz (Poland) - Instructor: Dr. Diego Fontaneto (CNR, Italy).

This course will introduce scientists and practitioners interested in applying statistical approaches in their daily routine using R as a working environment. Participants will be introduced into the mysteries of R and R Studio while learning how to perform common statistical analyses. After a short introduction on R and its principles, the focus will be on questions that could be addressed using common statistical analyses, both for descriptive statistics and for statistical inference.

Course website: ( <https://www.physalia-courses.org/courses-workshops/course13/> )

2) 3rd edition Geometric Morphometrics - 30th March-3rd April 2020 - University of Lodz (Poland) - Instructor:

Dr. Carmelo Fruciano (Ecole Normale Supérieure, Paris (France) )

This course covers the main common practices of modern geometric morphometrics, including: acquiring data, analysing it, visualizing and interpreting the results. This course is aimed at beginners and intermediate users. In other words, it is aimed at researchers who intend to use geometric morphometrics or who have started performing geometric morphometric analyses but feel they need a more structured background.

The first two editions of the course have taken place in Berlin, Germany. The participants to these editions have been involved in two studies led by the instructor. The first of these two studies has been published (Fruciano et al in press - Zoological Journal of the Linnean Society; ( <https://doi.org/10.1093/zoolinlean/zlz069> ) )

Course website: ( <https://www.physalia-courses.org/-courses-workshops/course22/> )

Should you have any questions, please feel free to contact us at: ( <mailto:info@physalia-courses.org> )

Best regards,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR  
[info@physalia-courses.org](mailto:info@physalia-courses.org) <http://www.physalia-courses.org/> Twitter: @physacourses mobile: +49 17645230846 <https://groups.google.com/forum/#!forum/physalia-courses> [info@physalia-courses.org](mailto:info@physalia-courses.org)

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## SanDiego DomesticationGenomics Jan11-15

Call for Abstracts

Domestication Genomics Workshop

Plant and Animal Genome XXVIII International Conference

<http://www.intlpag.org/> January 11-15, 2020 Town and Country Convention Centre, San Diego, California

We are soliciting abstract submissions for oral presentations on any domestication genomics of plants, animals, or fungi for the annual Domestication Genomics workshop at the Plant and Animal Genome XXVIII International conference. The workshop is scheduled on Sunday, January 12, 2020. The workshop will have 1 session with a provision for 6 invited speakers. Most of the invited presentations will be selected from the

submitted abstracts.

Please send your abstract of no more than 250 words by e-mail to Emily Josephs ([josep993@msu.edu](mailto:josep993@msu.edu)) or Emily Warschefskey ([e.warschefskey@gmail.com](mailto:e.warschefskey@gmail.com)) no later than October 18, 2019. You will be notified by October 25, 2019 whether your abstract has been selected for an oral presentation. The selected presenters will need to submit their abstract to the PAG website. Authors whose abstracts are not selected for oral presentations are highly encouraged to present a poster at the conference.

Emily Josephs Assistant Professor Dept of Plant Biology  
 Michigan State University [josephslab.github.io](http://josephslab.github.io)

“Josephs, Emily” <[josep993@msu.edu](mailto:josep993@msu.edu)>

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## SanDiego PopConservationGenomics Jan11-15

Call for Abstracts Population and Conservation Genomics Workshop Plant and Animal Genome XXVIII International Conference <http://www.intlpag.org/> January 11-15, 2020 Town and Country Convention Centre, San Diego, California

The annual Population and Conservation Genomics workshop will be held at the Plant and Animal Genome XXVIII International conference. The workshop is scheduled on Saturday, January 11, 2020 and Monday, January 13, 2020. You are invited to attend this Workshop and submit abstracts for oral presentations on any population and conservation genomics aspect of both plants and animals. The topics may include (but not limited to): population genomic diversity and structure; molecular evolution; landscape genomics; seascape genomics; natural selection and local adaptation; ecological and evolutionary genomics; population epigenomics; paleogenomics; eDNA; bioinformatics in population and conservation genomics; population genomics of speciation; metapopulation genomics; application of genomics in breeding, forensics, biogeography, demography inferences, and conservation and management of genetic resources; genomic effects of domestication, management practices, fragmentation, bottlenecks, climate and environment change, and transgenic deployment; and gene conservation; etc.

The Workshop will have 2 sessions with a provision for 12 invited speakers. Most of the invited presentations will be selected from the submitted abstracts. Please send your abstract of no more than 250 words by e-

mail to Om Rajora (Om.Rajora@unb.ca) as an attached Word file no later than October 18, 2019. You will be notified by October 25, 2019 whether your abstract has been selected for an oral presentation. Thereafter, the selected presenters will need to submit their abstract to the PAG website. Authors whose abstracts are not selected for oral presentations are highly encouraged to present a poster at the conference.

#### Inquiries and Abstract Submission

For information and questions regarding the Population and Conservation Genomics workshop, please contact Om Rajora at the following coordinates.

Dr. Om P. Rajora University of New Brunswick Fredericton, NB E3B 5A3, Canada. E-mail: Om.Rajora@unb.ca  
Tel: (506) 458-7477 Fax: (506) 453-3538

om.rajora@unb.ca

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## Sydney PlantEvolution Apr1-10

Dear colleagues,

We are delighted to announce a new eFLOWER Summer School, this time to be hosted Down Under at the Royal Botanic Garden and the University of New South Wales in Sydney, Australia, from 1 to 10 April 2020. We have secured funding to maintain free registration and offer some travel support for the 15 participants. All details are in our event webpage: <https://www.rbg Syd.nsw.gov.au/eflowerdownunder>. Please do not hesitate to circulate widely among your students and colleagues.

Kind regards,

Hervé, Susana, Jürg, and Will

\*eFLOWER Summer School Down Under\* Royal Botanic Garden Sydney and UNSW, Australia; 1-10 April 2020

We invite applications for the eFLOWER Summer School Down Under to be held at the Royal Botanic Garden Sydney and the University of New South Wales

(Australia) from 1 to 10 April 2020. The goal of the eFLOWER Summer School Down Under will be to deliver high-quality training in the modern comparative methods used to study plant macroevolution, while at the same time offering the students the opportunity to contribute to future targets of the eFLOWER project. While the methods are general and applicable to any group of organisms, all of our empirical datasets will be drawn from our recent work on flowering plants. A unique feature of this School will be that the students themselves will participate in the creation of the datasets (floral traits and fossil calibrations) in our collaborative database PROTEUS, thereby gaining hands-on experience of the problems and questions associated with compiling data and building real-life datasets for comparative analyses. In doing so, we hope to further promote the rapidly evolving field of macroevolution among graduate students in plant sciences, while also conveying our experience in building high-quality datasets.

For all details about this event, please see our webpage: <https://www.rbg Syd.nsw.gov.au/eflowerdownunder>. A PDF version of the announcement is available for download here < [https://www.rbg Syd.nsw.gov.au/getattachment/Science/efLOWER-Summer-School-Down-Under/-efLOWERSummerSchoolDownUnder\\_FinalAdv3.pdf.aspx?lang=en-AU](https://www.rbg Syd.nsw.gov.au/getattachment/Science/efLOWER-Summer-School-Down-Under/-efLOWERSummerSchoolDownUnder_FinalAdv3.pdf.aspx?lang=en-AU) > .

– Dr. Hervé Sauquet

Research Scientist (Systematic Botanist) Royal Botanic Gardens and Domain Trust < <https://www.rbg Syd.nsw.gov.au/> > Mrs Macquaries Rd, Sydney, NSW 2000, Australia E-mail: [herve.sauquet@rbg Syd.nsw.gov.au](mailto:herve.sauquet@rbg Syd.nsw.gov.au) or [herve.sauquet@gmail.com](mailto:herve.sauquet@gmail.com) Tel: +61 292 318 316 (office) or +61 410 798 181 (mobile)

Senior Visiting Fellow, University of New South Wales < <https://www.unsw.edu.au/> >, Sydney, Australia Associate Professor, Université Paris-Sud < <http://www.unpsud.fr/en/index.html> >, Orsay, France (Maître de Conférences HDR en détachement)

[www.eflower.org](http://www.eflower.org) [www.sauquetlab.org](http://www.sauquetlab.org) RBGDT profile < <https://www.rbg Syd.nsw.gov.au/Science/Our-science-staff/Dr-Herve-Sauquet> >

Hervé Sauquet <[herve.sauquet@gmail.com](mailto:herve.sauquet@gmail.com)>

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## Instructions

Instructions: To be added to the EvolDir mailing list please send an email message to [Golding@McMaster.CA](mailto: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](mailto:Golding@McMaster.CA). In addition, if it originates from ‘blackballed’ addresses it will be sent to me at [Golding@McMaster.CA](mailto: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](mailto: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](mailto:evoldir@evol.biology.McMaster.CA). Do not include encoded attachments and do not send it as Word files, as HTML files, as L<sup>A</sup>T<sub>E</sub>X 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](mailto: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<sup>A</sup>T<sub>E</sub>X do not try to embed L<sup>A</sup>T<sub>E</sub>X or T<sub>E</sub>X in your message (or other formats) since my program will strip these from the message.