E v o l D i r

October 1, 2003

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

Forward

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

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

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

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Conferences

Atlanta SEEC2004 Mar5-7

CALL FOR ABSTRACTS

SEEC 2004 SOUTHEASTERN ECOLOGY AND EVOLUTION CONFERENCE GEORGIA INSTITUTE OF TECHNOLOGY ATLANTA, GEORGIA, USA 5-7 MARCH 2004

ABSTRACT SUBMITTAL DEADLINE: 31 JANUARY 2004

We invite all undergraduate, graduate, and postdoctoral researchers in ecology, evolution, environmental sciences, limnology, forestry, fisheries, marine sciences, and other related fields to submit abstracts for either oral or poster presentations at the 1st Annual Southeastern Ecology and Evolution Conference (SEEC) to be held March 5-7, 2004, at the Georgia Institute of Technology in Atlanta, Georgia. SEEC is a product of similar conferences currently held in the northeast (NEEC) and the midwest (MEEC), and these conferences are professional meetings intended for students in the environmental sciences to present their research to their colleagues in a comfortable, fun, and low stress environment. Such events are designed to encourage new friendships within our field and to share newly developed research ideas for feedback. While we expect most SEEC participants to be from the Southeast, we encourage and welcome all interested individuals to submit abstracts and/or attend.

SEEC 2004 homepage: <http://-www.biology.gatech.edu/SEEC/SEEC.html>http:/-/www.biology.gatech.edu/SEEC/SEEC.html To encourage attendance, registration is FREE and covers meeting attendance, two continental breakfasts, snacks, coffee, and a t-shirt! If funds are available, awards for both the best oral and poster presentations will be given. There will also be tables from sponsors, including publishers, supply companies, and other organizations (see our web site for a complete list of sponsors). The registration and abstract submission deadline is January 31, 2004, and may be completed at the following web site:

<http://www.prism.gatech.edu/ ˜ aw181/SEEC/-Registration.htm>http://www.prism.gatech.edu/-˜ aw181/SEEC/Registration.htm We are pleased to announce that our keynote speaker is Dr. Mark E. Hay, Teasley Professor of Environmental Sciences at the Georgia Institute of Technology. After receiving his B.A. in Zoology and Philosophy from the University of Kentucky, Dr. Hay completed his Ph.D. at the University of California at Irvine where he studied the role of herbivores in structuring coral reef communities. Dr. Hay joined the faculty at the University of North Carolina at Chapel Hill's Institute of Marine Sciences, and during his 17 years at UNC-CH, he developed research programs on the ecology and evolution of tropical and temperate reefs and on chemically-mediated interactions in marine versus terrestrial and temperate versus tropical systems. In 1999, Dr. Hay joined the School of Biology at the Georgia Institute of Technology in Atlanta, Georgia. While at the Georgia Institute of Technology, Dr. Hay has been instrumental in the development of the new Center of Aquatic Chemical Ecology which is well funded by grants from NSF via an Integrative Graduate Education and Research Training grant.

The Georgia Institute of Technology is located in midtown Atlanta, Georgia and is convenient to numerous hotels, restaurants, music venues, and bars

(to see what's happening in Atlanta, check out these sites <http://www.atlanta.creativeloafing.com/->atlanta.creativeloafing.com, <http://-www.accessatlanta.com/>www.accessatlanta.com and <http://www.citysearch.com/>www.citysearch.com). We have reserved rooms at three reasonably priced hotels near the university at special rates - so reserve your room before they are gone. Additionally, Atlanta has a subway/bus system for easy travel within the city. Registration, abstract submission, travel/lodging information, and contact information may all be found at the SEEC web site:

SEEC 2004 homepage:

<http://www.biology.gatech.edu/SEEC/-SEEC.html>http://www.biology.gatech.edu/SEEC/-SEEC.html Please forward this message to interested students! SEEC flyers are also available on the SEEC homepage and we strongly encourage its posting in conspicuous locations!

We look forward to seeing you at the Georgia Institute of Technology for the 1st Annual Southeastern Ecology and Evolution Conference this March!

Alan Wilson - <mailto:alan.wilson@biology.gatech.edu>alan.wilson@biology.gatech.edu
SEEC Organizing Committee Chair

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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

Beijing Phylogeography Aug23-27

Dear All,

A conference symposium on phylogeography has been planned for the XIXth International Congress of Zoology (ICZ 2004, Section 1.2), which will be held in Beijing on 23-27 August 2004 (see website http://www.icz.ioz.ac.cn/second/-second_announcement_v3.html for more information about registration, etc.). Dr. John Avise will come to give a congress plenary lecture. The symposium "Phylogeography: Principles and Practice" intends to provide an opportunity for scientists studying all animal groups (vertebrates and invertebrates) and all aspects of phylogeographical research (theoretical, applied or methodological) to communicate and discuss their most recent findings and results. The end of August is the start of the best time for visiting Beijing and other part of China. The congress has arranged several attractive excursions in Beijing and trips to other interesting places in China (including Xi'an for the terracotta army, Guilin for the most beautiful natural stone forest, Lasa for characteristic Tibetan beauty).

Limited funds will be available for assisting international delegates who are unable to obtain full support for attending the ICZ 2004: particular consideration will be given to graduate and postgraduate students, and participants from developing countries. Both oral and poster presentations are welcome. Participants who intend to give oral presentations are invited to submit a mini-paper not more than 2000 words (including tables, no figures; Arial, Size 11). Contributors should please send the electronic version of their mini-paper or poster abstract to the scientific committee of ICZ 2004 (Prof. Dehua Wang, E-mail: wangdh@panda.ioz.ac.cn) indicating the symposium name or the symposium organizer (Godfrey M. Hewitt: g.hewitt@uea.ac.uk or De-Xing Zhang: dxzhang@panda.ioz.ac.cn).

De-Xing Zhang, PhD Research Professor PO Box 70 Institute of Zoology Chinese Academy of Sciences 25 Beisihuan-Xi Road Beijing 100080 P. R. China

Tel: (+86) 10 6261 2962 Fax: (+86) 10 6261 2962 E-mail: dxzhang@panda.ioz.ac.cn http://-www.ioz.ac.cn/department/agripest/group/zhangdx/-ZhangDX_E.htm

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ZHANG De-Xing <dxzhang@panda.ioz.ac.cn>

Germany GenderTransitions Apr21-25

Workshop on G e n d e r t r a n s i t i o n s from hermaphroditism to gonochorism and back Wed 21 - Sun 25 April 2004, Haus Humboldtstein (near Bonn, Germany)

Goal To discuss the three main aspects of transitions in gender expression: (1) The selective forces that favour one or another mode of gender expression (2) The mechanisms that underlie gender expression (3) Stabilising and destabilising factors, direction of gender transitions The emphasis will be on animals, but botanists who work in this field are strongly invited to participate.

Programme Arrival on Wednesday with welcome drink, followed by three days with 18 contributed and 6 invited talks, leaving plenty of time for informal discussion and evening activities. Final party on Saturday night and departure on Sunday. Poster presentation is possible (e.g. if required by your funding agency).

Venue A small, cosy conference centre in a superb location South of Bonn, high on the West bank of the Rhine valley, with beautiful views and the opportunity to walk in the surrounding forests. www.haus-humboldtstein.de (in German). Easy to reach by train from the international airports Frankfurt & Duesseldorf.

Accommodation Full board, including coffee breaks, ca. 300 EURO per person. Room for 34-53 people, depending on single or double occupancy of the rooms.

Registration Given the limited space and our wish to have a good spread of contributions across the three topics, and between zoology and botany, we request interested colleagues to submit an intent to participate to doberenz@uni-muenster.de with transitions in the subject line before 15 December 2003. In addition to contact details, your email should include a few sentences on what your interests in this field are. The final decision on participation will be made available shortly after the deadline has passed.

Web site Details of the meeting (incl. invited speakers) will appear on the web site of our department: http://www.uni-muenster.de/Biologie.EvoEco/Evolbio/ Organisors Nils Anthes and Nico Michiels, Evolutionary Biology, University Muenster, Huefferstrasse 1, D-48149 Muenster, Germany. michiels@uni-muenster.de (only for information, not for registration).

Prof. Dr. Nico K. Michiels Institute of Animal Evolution and Ecology Westphalian Wilhelms-University Muenster Huefferstrasse 1, D-48149 Muenster, Germany

Tel. +49 (0)251 83 24661 Mobile +49 (0)170 4758003 Fax. +49 (0)251 83 24668

michiels@uni-muenster.de http://www.uni-muenster.de/Biologie.EvoEco/Evolbio/

Nico Michiels <michiels@uni-muenster.de>

Hawaii Sciences Jan15-18 2

Call for Papers/Abstracts/Proposals Hawaii International Conference on Sciences January 15 - 18, 2004 Renaissance Ilikai Waikiki Hotel, Hawaii, USA

Since many people have individually asked for an extension of the submission deadline, we are extending the deadline for submissions to Monday, September 29, 2003.

Call for papers, abstracts, student papers, work-in-progress reports, research proposals, workshop proposals, poster sessions, research tables, reports, practitioner forums, panel discussions, or tutorials related to sciences. For more information on the format of submissions visit our website at: http://www.hicsciences.org/-CallForPapers_Sci.htm

All areas of sciences are invited. For a complete list of suggested topic areas see http://www.hicsciences.org/-CallForPapers_Sci.htm. Submissions may be made electronically via e-mail to sciences@hicsciences.org

If you would like your e-mail address removed from this distribution list, please respond to sciences@hicsciences.org and put remove in the subject heading.

Hawaii International Conference on Sciences P.O. Box 75036 Honolulu, HI 96836, USA Telephone: (808) 949-1542 Fax: (808) 947-2420 E-mail: sciences@hicsciences.org Website: http://-www.hicsciences.org

London Evolvability Oct8-10

Call for Papers and Participation:

EPSRC Network on Evolvability in Biological and Software Systems

Symposium on

EVOLVABILITY & INTERACTION: Evolutionary Substrates of Communication, Signaling, and Perception in the Dynamics of Social Complexity

Sponsored by Engineering and Physical Sciences Re-

search Council (EPSRC) Queen Mary, University of London University of Hertfordshire, Adaptive Systems Research Group

Dates: October 8-10 (Wed, Thurs, Fri), 2003

Location: London, England Queen Mary University of London

General Chair and Local Organizer: Peter McOwan (Queen Mary, London, U.K.)

Program Chairs: Kerstin Dautenhahn (Univ. Hertfordshire, U.K.) Chrystopher L. Nehaniv (Univ. Hertfordshire, U.K.)

SCOPE

The focus of this symposium is on the relationship between evolvability and interaction in biology, robotics and software systems. Evolvability is the capacity of populations to support heritable variability and differential success, as in organic, memetic or artifical evolutionary systems. Interaction between entities (large or small populations of cells, individuals, units of selection, social agents: animals, humans, robots, software) is the background for and is harnessed by evolutionary processes. This can result in adaptation to the presence of others via signalling and perception, communication, and exploiting the dynamics of social interaction.

In humans, other primates, dolphins, corvid, parrots, and other species interaction and social complexity have evolved that exploit mechanisms of recognition of particular individuals, life-long learning, autobiographical and interaction memory, development of social relationships, and complex forms of social learning and communication. Other animals exhibit interactive signaling systems (e.g. affect, threat and courtship displays), whereas within multicellular organisms and insect societies the substrates of interactions exploit chemical and stigmergic signals, or cell-type and caste roles.

TOPICS OF INTEREST

- evolution of evolvability in populations of interacting individuals - animal social complexity - the behaviour of communicating and signaling - affordances and ecologies of interaction - animal social networks and kinds of social minds - evolvability issues in computation and interaction - evolution of cognition and interaction - perception and recognition of others - emergence of higher-level phenomena through interaction - cultural evolution, social learning and imitation - interaction among social robots - swarm intelligence, self-organization and stigmergy - minimal architectures for social robotics - dynamics in robot-human interaction - cognitive constraints and the evolution of social behaviour - intersubjectivity and intention reading in interaction - development of long-term interactive relationships - interaction histories and autobiographic memory - evolution of signaling and communication - expression in interaction - social grounding of referential behaviour and language - Machiavellian Intelligence - systems and dynamical approaches to evolvability and interaction - predictive models of evolvability in social settings - development and dynamics of interaction - development and differentiation in evolving populations (differentiated multicellularity, social caste systems, etc.) - others

KEYNOTE SPEAKERS BEING INVITED

(*** Participation to be Confirmed ***)

* = confirmed

Evolution of Communication:

* Irene Pepperberg (social learning and communication in parrots) W. John Smith (communicative behaviour, intention-reading) Harold Gouzoules (primates)

Signaling Interactions:

Roger T. Hanlon (signalling behaviour of cephalopods) Katy Payne (Elephant communication)

Cognitive Ethology:

Donald R. Griffin (animals minds, evolutionary continuity) Michael Tomasello (cognition and imitation)

Robotics:

* Kerstin Dautenhahn (social robotics and social intelligence in AI) * Yoshihiro Miyake (co-creation in interaction) * Tomio Watanabe (dynamics in man-machine interaction) Rodney Brooks (robotics, non-traditional media and models) * Auke Jan Ijspeert (neural models, evolvability of behaviour, humanoid imitation)

Swarm Intelligence:

* Guy Theraulaz (self-organisation in insects and simulation modeling)

Evolution of Social Intelligence:

Rufus Johnstone (signaling and social behavioural ecology)

Social Development and Intersubjectivity in Interaction:

Jacqueline Nadel (development and interaction studies in infants)

Evolution of human language:

* Robin Dunbar (grooming, cognition, and communication in primates)

Dynamics of Evolvability:

Magnus Enquist (evolution of behaviour, evolution of

culture) * Richard E. Michod (evolution of individuality, cooperation, sex, Darwinian dynamics)

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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

NorthCarolinaStateU QuantGenet Nov1

The Center for Computational Biology at North Carolina State University organizes annual symposia on various topics in computational biology. This year, the Symposium is entitled the Interface Between Quantitative and Molecular Genetics and honors Professor Eugene J. Eisen. The Symposium will be held on the North Carolina State University campus in Raleigh on November 1, 2003. You are invited to attend.

Details about the Symposium can be found at: http://coltrane.gnets.ncsu.edu/Eisen_Symposium.htm

Please arrange to attend.

Bill Atchley

William R. Atchley William Neal Reynolds Professor of Genetics, Statistics and Biomathematics North Carolina State University Raleigh, NC 27695-7614 Telephone (Voice): 919-515-7088 Fax: 919-515-3355 e-mail: atchley@ncsu.edu Webpage: http://coltrane.gnets.ncsu.edu

RiversideCA GMOs Oct14-17

ANNOUNCEMENT

GMO CONFERENCE October 14 - 17, 2003 3649 Mission Inn Blvd. Riverside, California

http://www.genomics.ucr.edu/centers/biotech/2003gmoconference.html Hosted by the UC Riverside Biotechnology Impacts Center, this conference will take a broad-ranging, visionary approach to the practical uses of genetically modified organisms. The cost for this 4-day conference is $275; $100 for graduate students. For further information contact Carol Lerner at (909) 787-5089 or by email carol.lerner@ucr.edu.

Norman Ellstrand <Ellstrand@ucrac1.ucr.edu>

USussex PopGenetics Dec16-19

Population Genetics Group Meeting

University of Sussex

Tuesday Dec 16th until Friday Dec 19th

The Population Genetics Group meeting is a small (~150 delegates) informal meeting of evolutionary biologists. The cost of the conference =

is modest, at £ 185 for registration, accomodation and all meals.

There will be three plenary talks, which will be given by John Maynard =

Smith, Tim Birkhead and Laurent Duret; there will be two parallel sessions of 20 minute talks at other times and a poster session. The conference will start on the evening of tuesday Dec 16th, with the first talk the following morning, and will finish at lunch on friday december 19th.

Please visit our web-site (http://www.biols.susx.ac.uk/CSE/popgroup/home.html) for further information, to submit talk/poster titles and to register.

Adam Eyre-Walker Centre for the Study of Evolution & School of Biological Sciences University of Sussex Brighton BN1 9QG

tel : 01273 678480

UWollongong AustEvol Feb10-12

“AES Call for Abstracts”

Dear Evolutionary Biologists,

The University of Wollongong, NSW Australia, is hosting the 3rd Australasian Evolution Meeting. It will be held on 10-12 February 2004, and will cover all aspects of evolutionary biology.

The response to our initial call for expressions of interest was very pleasing and we anticiptate ˜ 100 conference participants, and now need to finalize the details of those wishing to to speak or present posters. The closing date for Abstracts and early registrations is Monday November 17th.

Please complete the attached registration form and follow instructions for preparation of abstracts.

We will let you know which category that you have been accepted for by November 24th.

Oral presentations in power point form should be burnt onto CDs to simplify loading onto computers at the meeting.

Poster dimensions: Posters should fit boards that are 90cm wide and 2m tall.

PS - please note that enquiries should be directed to Julie Wright via juliew@uow.edu.au and NOT julie_wright@uow.edu.au.

http://www.uow.edu.au/science/biol/aes2004/-index.html Paul Rymer For AES Organizing Committee

GradStudentPositions

AllanWilsonCentre ChathamIslands

PhD Scholarship available in the Allan Wilson Centre for Molecular Ecology and Evolution

The Chatham Islands: an emergent ark?

The Chatham Islands and their biota have long been thought to be of ancient origin. But, new evidence suggests that the Chatham Islands may have existed for as little as 4 million years. Imagine no land there whatsoever. The biological significance of this idea is so profound that it demands scientific scrutiny.

If verified, then the arrival and establishment of all land-dwelling plants and animals in the Chatham Islands has been rapid, and in biological terms, recent. This concept has major implications for understanding rates and mechanisms of dispersal and colonization over large distances, speciation, biodiversity of oceanic islands and the biological history of New Zealand.

The proposed research will involve geological and biological studies. It will be detective, searching for critical geological evidence of two major processes: sea level change and tectonic uplift. Biological research will compare DNA sequences from selected Chatham Islands and mainland plants and animal to explore the timing, pattern and ecological consequences of colonization and isolation.

This project will involve geologists and biologists working together from GNS and Massey, Otago and Lincoln universities. It has the potential to establish new

ways to determine island histories, rates of dispersal and rates of speciation.

I seek a PhD candidate to develop and undertake a molecular ecology project to study the relationships and diversity of Chathams Island animals and their counterparts in New Zealand. The object of the programme is to examine patterns of molecular and morphological evolution within the context of a known age of the Chathams Islands. The research will be primarily laboratory based applying a range of molecular, stystematics, population genetics and phylogenetics techniques, to a range of vertebrate and invertebrate taxa and may utilise ancient DNA techniques. You will need to be prepared to participate in several field trips to the Chathams Islands and regions of mainland New Zealand, to interact effectively with a large multidisciplinary team and with staff of relevant institutions that may provide additional study material. Experience with laboratory techniques would be an asset but is not essential, although you will need to demonstrate some aptitude for the meticulous methods required for this work. Other experience and interest in other areas including biogeography, ecology, taxonomy and computation would be advantageous.

Feel free to contact me to discuss the programme in more detail. Closing date 31 December 2003.

Dr Steve Trewick Allan Wilson Centre for Molecular Ecology and Evolution Private Bag 11 222, Palmerston North, New Zealand. http://awcmee.massweyac.nz Fax: 64 6 350 5626 Tel: 64 6 350 5799 extn 2043 Email: s.trewick@massey.ac.nz http://-awcmee.massey.ac.nz/people/strewick/index.html http://awcmee.massey.ac.nz/nzinsects/index.html –

Susan Wright Business Manager Allan Wilson Centre for Molecular Ecology and Evolution Massey University Private Bag 11-222 Palmerston North Tel: +64 6 350 5448 New Zealand Fax: +64 6 350 5626

http://AWCMEE.massey.ac.nz Susan Wright <s.m.wright@massey.ac.nz>

AmericanU CodonUsage

A two-year M.S. graduate fellowship is available in the Carlini laboratory to examine the functional effects of altering codon bias in Drosophila melanogaster. The research project involves introducing preferre d and/or unpreferred codons into the alcohol dehydrogenase gene and examining the effects of such mutations on expression and fitness. Applicants should have a strong interest in population genetics and molecular evolution. This NSF-supported position provides complete tuition remission (worth ~$17,000 a year), stipend (~$20,000 a year), and research support. Women and minoritie s are particularly encouraged to apply. My laboratory is located in the Biology Department at American University. See http://www.american.edu/cas/-bio/welcome_bio.html for information about the Department and the M.S. graduate program. American University is located in a tranquil residential area in the NW quadrant of Washington, D.C., a short distance from centers of research (e.g., NIH is just 2 metro stops away), government, business, commerce and art. Questions concerning the project and applications can be sent via email to: carlini@american.edu

The following research articles are related to the project: Carlini, D. B. and W. Stephan. 2003. In vivo introduction of unpreferred synonymous codons in the Drosophila Adh gene results in reduced levels of ADH protein. Genetics 163(4): 239-243. www.american.edu/cas/bio/faculty_media/-carlini/Carlini&Stephan2003.pdf Carlini, D. B., Y. Chen, and W. Stephan. 2001. The relationship between third codon position nucleotide content, codon Bias, mRNA secondary structure, and gene expression in the drosophilid alcohol dehydrogenase genes Adh and Adhr. Genetics 159 (2): 623-633. www.american.edu/cas/bio/faculty_media/-carlini/Carlinietal.2001.pdf David Carlini Department of Biology 101 Hurst Hall American University 4400 Massachusetts Ave., NW Washington, D.C. 20016 Phone: (202) 8852184 Fax: (202) 885-2182 Website: http://www.american.edu/cas/bio/-faculty_media/carlini/index.html

IndianaStateU LizardEvolution

The following ad will appear in Science next week:

Victoria University of Wellington is a dynamic, rapidly growing university in the capital city of New Zealand. The School of Biological Sciences (www.sbs.science.vuw.ac.nz) seeks to make four new appointments, including at least one at the Professorial level.

We seek to appoint in areas of existing or developing research and teaching strengths within the School, in-

cluding: Genetics; Cell & Molecular Biology; Molecular Evolution & Ecology; Marine Biology; Microbiology; Proteomics; Biotechnology; Molecular Pathology and other Biomedical Sciences. Successful applicants will be active and productive researchers in one of these disciplines.

In three of these positions, we are seeking researchers who use contemporary molecular methodologies to advance their biological disciplines. Two of these positions are at the Lecturer/Senior Lecturer/Associate Professor level. The third position is a professorial appointment, where applicants will be required to demonstrate an ability to attract significant external research funding and guide development of molecular technologies and capacities across the School (refs SA0375B Professor of Biological Sciences; SA0376B Lecturer / Senior Lecturer / Associate Professor in Biological Sciences).

The fourth position is dedicated to a person in a research and teaching discipline of particular relevance to Maori and/or Pacific peoples and who can assist us to develop links to Maori and/or Pacific communities. Appointment to this position may be at any level, including Professor (ref SA0377B Lecturer / Senior Lecturer / Associate Professor / Professor - Biology of the Pacific).

The School of Biological Sciences provides a friendly and collegial working environment. We offer innovative teaching and research programmes supported by about 50 academic, research, and general staff, with about 100 research students. The present appointments arise from on-going expansion of the School in response to successes in both teaching and research.

Relocation and establishment costs are available subject to negotiation with successful applicants. In accordance with British and New Zealand conventions, a New Zealand Senior Lecturer and Lecturer are generally considered to be equivalent to, respectively, a North American Associate Professor and Assistant Professor.

Applications close 24 October 2003. Please quote the relevant reference number on all correspondence.

For further information about these positions, see the website: www.nzjobs.co.nz/vuw An application pack is available from the HR Officer, Faculties of Science, Architecture and Design, tel: +64-4-463 5100, fax: +64-4-463 5122 or email: science-appoint@vuw.ac.nz Victoria University of Wellington is an EEO employer.

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Dr.Linley Jesson School of Biological Sciences Victoria University of Wellington PO Box 600 Wellington NZ

phone +644 463 5573 fax + 644 463 5331

Linley Jesson <linley.jesson@vuw.ac.nz>

5-Year RA position in Behavioral Ecology of Lizards

One fully funded doctoral RA position to study behavioral ecology of lizards starting Fall 2004. Of particular interest are applicants interested in the behavioral aspects of predator avoidance in lizards. The successful candidate would work in collaboration with Diana Hews and Steve Lima. Prospective students working more generally in the areas of lizard territoriality, color or pheromonal signals, and hormonal mechanisms are also encouraged to apply. Interested applicants should submit a CV and a preliminary statement of research interests to Hews. Applications for graduate admission should be submitted by Feb. 1 for full consideration.

For more information please see: http://-mama.indstate.edu/users/hews/ for information about the Hews Lab. http://mama.indstate.edu/-users/lima/ for information about the Lima Lab. http://oeb.indstate.edu/ for information about the Organismal & Environmental Biology Group. http:/-/biology.indstate.edu/dls/ for information about the Department and graduate applications.

Dr. Diana K. Hews Department of Life Sciences Indiana State University Terre Haute IN 47809 Voice (812) 237-8352 dhews@indstate.edu

LaTrobeU ClimateChangeAdaptation

PhD scholarships: Adaptation of organisms to climate change.

The Centre for Environmental Stress and Adaptation Research (CESAR) is offering three new scholarships leading to PhDs for research into adaptation to climate change. The scholarships carry stipends of AUS$18000. Alternatively for students securing university scholarships, CESAR will top up stipends to AUS$21,500. CESAR is a leading center funded by the Australian Research Council investigating the ways organisms adapt to environmental stresses including climatic stress and chemical stress. CESAR also has active programs in developing biomonitoring tools for pollutants and other stresses associated with human activities. The projects are aimed at the following areas: 1. Isolating genes involved in adaptation to desiccation resistance in Drosophila melanogaster, using a combination of candidate genes, QTL mapping and microarray analysis.

2. Testing the hypothesis that rainforest invertebrate species have a limited evolutionary potential to adapt to climatic stresses testing the generality of the results in Hoffmann et al, 2003 Science 301: 100-102.

3. Isolating mechanisms and genes involved in adaptive shifts in timing of winter reproduction. See Hoffmann et al, Journal of Evolutionary Biology 16: 614-623.

For further information, please contact Ary Hoffmann (A.Hoffmann@latrobe.edu.au) and visit www.latrobe.edu.au/cesar/. Scholarships are targeted to Australian and New Zealand students. International students with exceptional records may apply but will also need to secure a University scholarship to cover fees. Positions will be available until filled.

Best regards, Andrew

Dr. Andrew Weeks ARC Research Fellow Centre for Environmental Stress and Adaptation Research (CESAR) La Trobe University Victoria 3086 Australia

Tel: 613 9479 2271 Fax: 613 9479 2361 Email: A.Weeks@latrobe.edu.au http://www.latrobe.edu.au/-cesar

Andrew Weeks <A.Weeks@latrobe.edu.au>

LundU WeedEvol

Dear All, we are advertising for a new PhD-student to join our group. All the best, Tina D'Hertefeldt

PhD studentship in Ecology, Plant Ecology and Systematics

Life history, ecophysiology, and the success of clonal weeds

A four-year PhD studentship in Plant Ecology and Systematics, funded by the Faculty of Science, Lund University, is available at the Section for plant Ecology and Systematics, Department of Ecology, Lund University, Sweden, to study fitness consequences of physiological integration and morphology in a highly invasive clonal plant species.

Background: By adopting a life history-based framework that concentrates on trade-offs and their physiological background, this project aims to identify traits important for invasive clonal weeds. Ground elder, Aegopodium podagraria, has successfully colonised a wide range of cultivated lands in Sweden, and is considered one of the worst weeds in northern Europe. However, very little is known about its life history traits and how these enable the plant to be a successful weed. One yet untested hypothesis is that resource storage combined with clonal splitting allows successful establishment of new modules. The degree to which this interacts with invasiveness, life histories, and overall genetic variability is currently unknown.

Goals: Populations from southern and northern Scandinavia (where the species reaches its northern distribution limit) will be tested for differences in morphological traits, physiological integration and the occurrence of stored resources. Based on these data, the project aims to determine 1) the importance of storage and resource sharing for population establishment and persistence, 2) developing molecular markers and determining the degree of genetic variation within and between focal populations, and 3) variation in morphological traits between and within focal populations.

Key traits associated with weediness in this species will be identified using field experiments and common-garden techniques where weedy Aegopodium podagraria populations are compared with typical native populations found in deciduous forests.

The duties of the PhD position also include (up to 10%) undergraduate teaching and a certain amount of administration.

We are looking for a candidate with a B.Sc. degree (or equivalent) in biology or a related subject, and a strong interest in plant ecology, ecophysiology and molecular ecology. Good skills in written English is a prerequisite, and a driverslicence is necessary for the field work. Social skills to function in a group of researchers is important.

Starting date: as soon as possible

The application should be written using a form found on the Faculty website http://-www.naturvetenskap.lu.se/fou/antagn_blankett.pdf The application, marked with reference number 515, should be sent to Registrator, Administration Office, Lund University, Box 118, SE-221 00 Lund, Swedenno later than September 22, 2003. The application should include a signed and witnessed CV, a list of publications, and witnessed copies of exam certificates.

Further information from Research associate Tina D'Hertefeldt (tel: +46 46 2224785; email

Tina.DHertefeldt@ekol.lu.se) or Professor Ursula Falkengren-Grerup (tel: +46 46 2224408; email Ursula.Falkengren-Grerup@ekol.lu.se).

Tina D'Hertefeldt, research associate Division for Plant Ecology and Systematics Department of Ecology Lund university SE-223 62 Lund Sweden

Tina D'Hertefeldt <tina.dhertefeldt@planteco.lu.se>

MasseyU MolEcolEvol

Molecular ecology Phd scholarship in New Zealand (available to New Zealand residents, and Australian, French and German nationals).

I seek a PhD candidate to develop and undertake a molecular ecology project to study the relationships and diversity of Chatham Island animals and their counterparts in New Zealand. The object of the programme is to examine patterns of molecular and morphological evolution within the context of a known age of the Chathams Islands. The research will be primarily laboratory based applying molecular, systematics, population genetics and phylogenetics techniques to a range of vertebrate and invertebrate taxa, and may utilise ancient DNA techniques. You will need to be prepared to participate in several field trips to the Chathams Islands and regions of mainland New Zealand, to interact effectively with a large multidisciplinary team (including geologists, ecologists and geneticists) and with staff of relevant institutions that may provide additional study material. You should have experience in genetics and with standard laboratory techniques and in other areas such as biogeography, ecology, taxonomy and computation.

The Chatham Islands: an emergent ark? The Chatham Islands (situated ~700 km west of New Zealand in the Pacific Ocean) and their biota have long been thought to be of ancient origin. But, new evidence suggests that the Chatham Islands may have existed for as little as 4 million years.

If verified, then the arrival and establishment of all land-dwelling plants and animals in the Chatham Islands has been rapid, and in biological terms, recent. This concept has major implications for understanding rates and mechanisms of dispersal and colonization over large distances, speciation, biodiversity of oceanic islands and the biological history of New Zealand.

The proposed research will involve geological and biological studies. It will be detective, searching for critical geological evidence of two major processes: sea level change and tectonic uplift. Biological research will compare DNA sequences from selected Chatham Islands and mainland plants and animals to explore the timing, pattern and ecological consequences of colonization and isolation.

For further details and to apply for this PhD scholarship, contact: Dr Steve Trewick Allan Wilson Centre for Molecular Ecology and Evolution Private Bag 11 222, Palmerston North, New Zealand. http://-awcmee.massweyac.nz Fax: 64 6 350 5626 Tel: 64 6 350 5799 extn 2043 Email: s.trewick@massey.ac.nz http://-/awcmee.massey.ac.nz/people/strewick/index.html http://awcmee.massey.ac.nz/nzinsects/index.html –

Dr Steve Trewick Research Fellow/ Teaching Fellow

Allan Wilson Centre for Molecular Ecology and Evolution Private Bag 11 222 Palmerston North New Zealand

Fax: 64 6 350 5626 Tel: 64 6 350 5799 extn 2043 Email: s.trewick@massey.ac.nz http://-awcmee.massey.ac.nz/people/strewick/index.html http://awcmee.massey.ac.nz/nzinsects/index.html http://awcmee.massey.ac.nz/nzinsects/index.html

MasseyU Penguin micros

PhD Scholarship available in the Allan Wilson Centre for Molecular Ecology and Evolution

Evolution of microsatellite DNA in ancient Adélie Penguins in Antarctica

This research project will form part of an ongoing programme which aims to directly measure evolution using living and ancient Adélie penguins samples. On Ross Island Antarctica, there are stratified deposits of subfossil bones of Adélie penguins dating to more than 15,000 bp. The Antarctic environment represents an ideal one for the preservation of DNA. We have successfully amplified nuclear and mitochondrial DNA from modern and ancient material (Roeder et al., 2001 Molecular Ecology 10: 1645-1656; Lambert et al., 2002 Science 295: 2270-2273). Specifically, the student will be expected to have a good academic background, a training in molecular biology and an interest molecular evolution. The project will involve interactions with a multidisciplinary team including specalists in geology, carbon dating, anatomists and microbiologists. The successful candidate will be required to undertake field work in Antarctica for approximately one month per year. These data will provide fundamental knowledge about evolutionary processes.

A scholarship of $25,000NZ per annum is available, plus student fees. In New Zealand, enrolment in a PhD programme requires a Master or BSc Hons degree. The PhD programme at Massey University has no papers requirement and the scholarship is for a three year period. It is envisaged that the successful candidate will commence in early 2004.

Further information can be obtained by visiting our web site (<HTTP://www.massey.ac.nz/~dmlamber/>) and interested parties should contact Prof David Lambert prior to applying. Formal applications will need to be received by October 15, 2003.

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Susan Wright Business Manager Allan Wilson Centre for Molecular Ecology and Evolution Massey University Private Bag 11-222 Palmerston North Tel: +64 6 350 5448 New Zealand Fax: +64 6 350 5626

http://AWCMEE.massey.ac.nz Susan Wright <s.m.wright@massey.ac.nz>

NCStateU QuantTraits

Department of Genetics at North Carolina State University

Research Training Program in the Genetic Architecture of Quantitative Traits

The National Institute of General Medical Sciences of the National Institutes of Health has awarded the Department of Genetics an Institutional Research Training Grant for predoctoral training in "The Genetic Architecture of Quantitative Traits."

Quantitative, or complex, traits are affected by multiple interacting genes, each of which have small effects and are sensitive to the environment. Understanding the molecular nature of genetic variation for quantitative traits will have an enormous impact on medicine, livestock and crop breeding, and the study of evolution. For over half a century North Carolina State University has been a leading center for research in quantitative genetics. To enable future scientists to advance our understanding of the genetic architecture of quantitative traits, we offer a research and training program that integrates quantitative, population, molecular and developmental genetics, statistics and molecular evolution.

Our program offers:

* $19,968 stipend with tuition and health insurance * Travel allowance and research funds * State-of-the-art research facilities * Internationally recognized faculty with expertise in theoretical and experimental quantitative genetics * A stimulating academic environment near the University of North Carolina at Chapel Hill, Duke University and the Research Triangle Park * A beautiful and affordable location with a pleasant climate between the beaches and the Appalachian mountains

US citizens and permanent residents are eligible for Fellowships. The Department of Genetics is strongly committed to promoting diversity in the scientific community and encourages applications from individuals of historically under-represented minority groups.

Training Faculty

Jose Alonso: Ethylene signal transduction in Arabidopsis; characterization of Arabidopsis genome.

Robert Anholt: Molecular and quantitative genetics of olfaction.

William Atchley: Developmental quantitative genetics and molecular evolution.

Philip Awadalla: Coalescent estimates and the evolutionary significance of recombination.

Patricia Estes: Development of the Central Nervous System (CNS) and cellular and molecular response to hypoxia.

Robert Franks: Development of the carpel margin meristem in Arabidopsis thaliana.

Gregory Gibson: Molecular and quantitative variation in developmental pathways in Drosophila.

Fred Gould: Ecological, genetic and chemical aspects of plant/herbivore interactions, pest management, and behavioral ecology of arthropods.

Patrick Hurban: Elucidation of biological networks.

Todd Klaenhammer: Physiology, metabolism and genetics of lactic acid bacteria.

James Mahaffey: Drosophila developmental genetics.

Trudy Mackay: Molecular quantitative genetics in Drosophila.

Laura Mathies: Genetic control of early gonad development in C. elegans.

Michael Purugganan: Molecular genetics of morphological evolution in plants.

Ronald Sederoff: Molecular genetics, quantitative genetics and genomics of pine.

Jeffrey Thorne: Statistical methods for analysis of sequence data.

Bruce Weir: Statistical methods for characterization of population structure, detecting human disease genes and individual identification.

Shaobang Zeng: Theory and statistical methodology for characterizing and analyzing genetic variation.

For information and application materials, contact:

Director of Graduate Programs Department of Genetics North Carolina State University Raleigh, NC 27695-7614 Telephone: 919-515-2292 http://-www.cals.ncsu.edu/genetics/

Julie Pederson <jdpeders@unity.ncsu.edu>

NorthCarolinaStateU Entomology

Urban Entomology Graduate Fellowships

The Department of Entomology at North Carolina State University invites applications for two M.S. and Ph.D. graduate fellowships in Urban Entomology. These Fellowships will support graduate training in the development and application of the principles of Integrated Pest Management in the structural, human-built environment. Fellows will conduct research on any of the major structural pest complexes or in environmental sciences related to structures and of concern to the pest management industry. The research supported under these Fellowships will be designed, among other things, to contribute to our body of information on urban pests and to develop strategies for management of urban pest populations and long-range improvements in and sustainability of urban pest management. Projects may include, among others:

Alternative pest management strategies, such as Biological Control IPM in structures (schools, animal production, etc.) Chemical communication Regulation of reproduction Regulation of foraging behavior and feeding; baits Population genetics Pesticide resistance and its management Impact of urbanization on arthropod communities

Online application forms: http://-www.cals.ncsu.edu/entomology/welcome.html
Other inquiries: Dr. Coby Schal coby_schal@ncsu.edu <mailto:coby_schal@ncsu.edu> Dr. Jules Silverman jules_silverman@ncsu.edu <mailto:jules_silverman@ncsu.edu> Dr. Edward L. Vargo ed_vargo@ncsu.edu <mailto:ed_vargo@ncsu.edu> Dr. Michael G. Waldvogel mike_waldvogel@ncsu.edu <mailto:mike_waldvogel@ncsu.edu>

– Coby Schal Blanton J. Whitmire Professor Department of Entomology, 3107 Gardner Hall Box 7613, North Carolina State University Raleigh, NC 27695-7613 tel: office: (919) 515-1821 lab: (919) 515-1820 fax: (919) 515-7746 email: coby_schal@ncsu.edu WWW: http://www.cals.ncsu.edu/entomology/schal

OxfordU MolecularClocks

TESTING MOLECULAR CLOCKS USING THE FOSSIL RECORD

A PhD or Research Assistant position will shortly be available at the University of Oxford, Department of Zoology, on a project using nuclear DNA sequences and fossil records of echinoderms to test variation in rates of molecular evolution. This project is already underway, and requires a person with excellent molecular laboratory skills - primarily in the area of PCR (nuclear sequences from difficult samples), cloning, and with an interest in phylogenetic analysis. The position will vary in length according to whether an RA or DPhil student is hired, and will commence in November or December 2003. If suitably skilled, a part-time research assistant may also be considered. The research group includes experts in ancient DNA, and phylogenetic analysis and the project is co-supervised by Alan Cooper (Oxford) and Richard Fortey (NHM). More information about the laboratory is available at http://abc.zoo.ox.ac.uk/. Contact; Alan Cooper (alan.cooper@zoo.ox.ac.uk) for further details.

Prof. Alan Cooper Director, Henry Wellcome Ancient Biomolecules Centre Dept of Zoology, South Parks Rd, Oxford OX1 3PS University of Oxford Fax: 44-1865-281843/310447 Ph: 44-1865-271263/271265 http://abc.zoo.ox.ac.uk/ Alan Cooper <alan.cooper@zoo.ox.ac.uk>

RiceU Dictyostelium

Graduate student positions are available for work on the social amoeba Dictyostelium discoideum, a unique and exciting model organism for social evolution. D. discoideum has cooperation, conflict, and complete reproductive altruism in its social stage. It also has a short generation time, a sequenced genome, techniques for knocking out and modifying genes, and it can be easily studied in the laboratory and the field. The project, a collaboration with Dictyostelium genomics researchers at Baylor College of Medicine, involves finding genes underlying sociality, examining the evolutionary history of these genes, and testing ancestral forms in vivo. It also involves testing whether social conflict leads to rapid evolution and arms races, determining how cheating is controlled, and finally relating laboratory findings to social evolution in the wild. The positions are funded by a large 5 year NSF grant from the Frontiers in Biological Research (FIBR) program. We are a friendly and interactive team of highly motivated investigators. We are seeking energetic students interested in the interface of evolutionary biology, social behavior, microbial evolution, and molecular biology. Please contact David Queller (queller@rice.edu) or Joan Strassmann (strassm@rice.edu) and apply to Rice University's graduate program in Ecology and Evolutionary Biology (linked from http://www.eeb.rice.edu/-). Women and minorities are particularly encouraged to apply. David C. Queller, Joan E. Strassmann, Department of Ecology and Evolutionary Biology, MS 170, Rice University, 6100 Main St. Houston TX 77005-1892. – Joan E. Strassmann, Professor Dept. of Ecology and Evolutionary Biology, MS 170 Rice University, 6100 Main St., Houston TX 77005-1892 USA

phone: (713) 348-4922 fax: (713) 348-5232 e-mail STRASSM@RICE.EDU http://www.ruf.rice.edu/-~evolve/

UArkansas EvolBiol

Doctoral Fellowships - University of Arkansas

The Department of Biological Sciences at the University of Arkansas is actively recruiting 2 Distinguished Doctoral Fellows and 6 Doctoral Academy Fellows to begin graduate work in August 2004. The Distinguished Fellowships have a 9-month stipend of $30,000, and the Doctoral Academy Fellowships have a 9-month stipend of $15,000, both available for up to 4 years of support based on satisfactory progress. Fellowships will require research and/or teaching depending upon the major professor chosen. In addition, fellowships include a waiver of tuition and most fees. Outstanding students from all biological disciplines are encouraged to apply. Selection will be based on undergraduate GPA, GRE scores, letters of recommendation, and undergraduate (B.S.) research experience or graduate (M.S.) research experience. Applicants should contact faculty members in the Department of Biological Sciences whose research they may be interested in directly at http://-/biology.uark.edu/bisc.html for more information and application materials. To be eligible for the Distinguished Doctoral Fellowships, applicants must be citizens of the United States. Review of applications will begin in early January and initial offers will be made in late January or February. Contact Dr. Kimberly G. Smith (kgsmith@uark.edu) for any further information.

Please circulate to colleagues and students.

UHelsinki SexualSelection

PhD position in Evolutionary Ecology: Sexual selection and the risk of extinction

A PhD position is available from January 1st, 2004 in the Department of Ecology and Systematics of the University of Helsinki (Finland), supervised by Dr. Hanna Kokko (Helsinki) and Prof. John D. Reynolds (University of East Anglia, Norwich, U.K.)

The study of sexual selection focuses intensively on 'costs': male-male competition can lead to injuries; female choice can itself be costly, and lead to the evolution of 'handicapping' male ornaments; and sexual conflict can cause substantial reductions in male and especially female fitness. Against this background it is very surprising that costs are rarely, if ever, interpreted in a full demographic context. Do we expect sexual selection to be 'bad' or 'good' for a population and species, in the sense of increasing extinction probability? As a classic example, did the Megaloceros ("Irish Elk") become extinct 10,000 years ago because its enormous antlers made it vulnerable? Should conservationists pay more attention to colourful and dimorphic species because they might cope less well in unforeseen environmental circumstances? Or does sexual selection instead purge populations of harmful alleles and so improve population viability?

The studentship 'Sexual selection and the risk of extinction' will use two approaches to examine the conservation implications of sexual selection. Firstly, there

is currently very little theory developed to predict population consequences of sexual selection. The student will develop demographic models to fill in some of these gaps. Secondly, s/he will use phylogenetic datasets on fishes, amphibians, and birds to examine whether risk of extinction is associated with sexual selection. There is also potential for empirical work at a later stage of the project, depending on the interests of the student.

The student will be based in Finland, joining Dr. Kokko's highly international group of 3 PhD students and 1 postdoctoral fellow, all working on different aspects of how individual behaviour and population dynamics interact. Additionally, the student will visit the University of East Anglia several times during the course of the Ph.D. For more information on the research groups involved, see http://www.helsinki.fi/~hmkokko/ and http://www.helsinki.fi/~hmkokko/ The salary is approx. 1850 EUR/month (after tax approx. 1300 EUR/month). The studentship additionally offers good funding for participating in international meetings and other forms of training. Candidates should have a strong interest in theoretical and comparative analyses of ecological questions. Interested candidates should send a curriculum vitae, a brief summary of research experience and interests, and two letters of reference by October 3rd to:

Hanna Kokko, Department of Ecology and Systematics, Division of Population Biology, University of Helsinki, P.O. Box 65 (Viikinkaari 1), FIN-00014 Helsinki, Finland.

For further information, contact hanna.kokko@helsinki.fi (tel +358 9 1915 7702)

Hanna Kokko, Department of Ecology and Systematics, Biocenter 3 PO Box 65 (Viikinkaari 1), 00014 University of Helsinki, Finland tel +358 9 1915 7702, fax -7694, email hanna.kokko@helsinki.fi http://www.helsinki.fi/~hmkokko

Hanna Kokko <hanna.kokko@helsinki.fi>

USussex Evolution

STUDY EVOLUTION AT SUSSEX Two postgraduate scholarships are available for 2004 at the Centre for the Study of Evolution, University of Sussex, Brighton, UK

The Centre for the Study of Evolution (CSE) is a cross-disciplinary research group within the University of Sussex which aims to develop and utilize evolutionary ideas. Members include biologists, biochemists, mathematicians and computer scientists. The CSE builds upon the ethos and distinguished contributions of Prof. John Maynard Smith, who founded the biology school at the University of Sussex in 1961, and continues evolutionary biology research within the CSE today. www.biols.susx.ac.uk/CSE

Two PhD scholarships are available, to begin January 2004 (later start date possible). Download a more detailed project description from http://www.biols.susx.ac.uk/CSE/graduatestudy.htm 1. Hox genes and the evolution of animal body plans: a bioinformatic approach This project will create comparative databases and new analytical tools for developmental genes to test the association between key "body patterning genes" and their hypothesized role in body plan evolution (with optional laboratory component). Open to UK residents of any nationality. Supervisors: Lindell Bromham (L.D.Bromham@sussex.ac.uk) and Juan-Pablo Couso (j.p.couso@biols.susx.ac.uk).

2. Tempo and mode of evolution: using DNA data to uncover evolutionary patterns and processes Molecular data are ideal for exploring deep evolutionary history of all organisms and for testing evolutionary hypotheses. This project will use databases of DNA sequences to investigate rate of molecular evolution and to explore the reliability of DNA as a recorder of evolutionary history. Other ideas for projects in evolutionary biology will be considered. Open to all nationalities (but non-EU students will need additional funding for fees - contact for more details). Supervisor: Lindell Bromham (L.D.Bromham@sussex.ac.uk)

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Lindell Bromham Centre for the Study of Evolution, Biological Sciences, University of Sussex, Falmer, Brighton, BN1 9QG, UK fax: +44-1273-678 433 email: L.D.Bromham@sussex.ac.uk email: L.D.Bromham@sussex.ac.uk

UTexasArlington PopGenomics

A PhD position available in Population Genomics and Epistatic Evolution, University of Texas at Arlington, beginning spring 2004.

I am seeking a highly qualified and motivated student with interests in genomics, molecular evolution, bioinformatics and biostatistics. The successful candidate

will conduct research on Drosophila to address questions about the role of epistatic variation and gene regulation in the evolution of reproductive isolation, phenotypic differences between species and host responses to rickettsial infections. An essential component of the project involves using RNA protocols, DNA chips for microarray analysis of gene expression, SAGE, RNAi, cell culturing and embryo injections. Ideally, the candidate should have molecular biology experience together with an understanding of evolutionary mechanisms and a strong quantitative/computational background.

The University of Texas at Arlington, the second largest component of the UT System, is conveniently located in the Dallas/Fort Worth Metroplex, minutes away from the best sports, entertainment and recreational opportunities in Texas. The Department of Biology at UTA provides intellectually stimulating environment with a number of dynamic research groups with strengths in evolutionary biology, systematics, and molecular evolution. In addition, the UTA Converging Biotechnology Center provides an interdisciplinary platform for biologists, biochemists, chemists and mathematicians interested in biotechnology, computational biology, biocomplexity, bioinformatics, genomics, proteomics, and nanobiotechnology.

Informal inquiries concerning the project and applications may be addressed to Pawel Michalak, michalak@uta.edu. Applications including a CV, statement of research interest, copies of relevant publications, and contact information of three references should be emailed or mailed to me at the address below. Dr. Pawel Michalak, Assistant Professor, Department of Biology University of Texas at Arlington 501 S. Nedderman 337 Life Science Arlington, TX 76010-0498

Tel.: 817-272-2871 Fax: 817-272-2855 Email: michalak@uta.edu http://www.uta.edu/biology/michalak/-index.html

Vienna Drosophila

PhD position available in ecological genetics

The successful candidate is expected to work on the isolation and functional characterization of ecologically important genes in Drosophila melanogaster.

D. melanogaster is of African origin and has recently expanded its habitat range to more temperate regions. Using a genome-wide scan for genes involved adaptations required for this habitat shift, my laboratory has identified a number of candidate regions. The PhD position is available for the further characterization of some of the identified regions.

Prospective candidates should have either a strong background in molecular evolution or molecular genetics.

Current members of the laboratory come from Austria, China, Germany, Italy and Scotland. The laboratory operates bilingually, allowing non-German speaking researchers to integrate easily.

Vienna provides a stimulating scientific environment with a number of research groups focusing on population genetics and evolutionary biology: Reinhard Burger, Ulf Dieckmann, Dustin Penn, Karl Sigmund, Peter Schuster and Claus Vogl. Apart from good science, Vienna also offers an active cultural life (2 operas, 2 world class concert houses, numerous museums and the famous coffee houses) and attractive recreation opportunities (alps are close by and you can sail within the city area!).

Further questions concerning the project and applications should be directed to Christian Schlotterer (Christian.schloetterer@vu-wien.ac.at).

References: Harr, B., M. Kauer, and C. Schlötterer. 2002. Hitchhiking mapping - a population based fine mapping strategy for adaptive mutations in D. melanogaster. Proc. Natl. Acad. Sci. USA 99:12949-12954.

Kauer, M., D. Dieringer, and C. Schlötterer. 2003. A microsatellite variability screen for positive selection associated with the 'out of Africa' habitat expansion of Drosophila melanogaster. Genetics in press.

Kauer, M., B. Zangerl, D. Dieringer, and C. Schlötterer. 2002. Chromosomal patterns of microsatellite variability contrast sharply in African and non-African populations of Drosophila melanogaster. Genetics 160:247-256.

Schlötterer, C. 2002a. A microsatellite-based multilocus screen for the identification of local selective sweeps. Genetics 160:753-763.

Schlötterer, C. 2002b. Towards a molecular characterization of adaptation in local populations. Current Opinions in Genetics & Development 12:683-687.

Schlötterer, C. 2003. Hitchhiking mapping - functional genomics from the population genetics perspective. Trends Genet 19:32-38.

Christian Schloetterer <christian.schloetterer@vu-wien.ac.at>

WashingtonStateU PhenoPlasticity

A graduate research assistantship (M.S. or Ph.D) is available in the Department of Entomology at Washington State University (http://entomology.wsu.edu/) to investigate the evolution & development of complex phenotypes in insects. I am looking for students interested in understanding how genes are translated into complex phenotypes. WSU is located in the scenic Palouse region (http://www.tourism.wa.gov/-PTG_RegionMain_R5.html) of eastern Washington & Idaho. Individuals interested in my laboratory will be involved in numerous groups on campus and with groups that include faculty & students from the University of Idaho, such as the Center for Reproductive Biology (http://www.crb.wsu.edu/index.html), the Center for Integrated Biotechnology (http:/-/www.biotechnology.wsu.edu/) and the Initiative in Organismal Interaction (http://www.wsu.edu/-~ mmorgan/ioi/initiativeinorganismalinteractions/-index.html). For more information, please contact:
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Laura S. Corley Department of Entomology P.O. Box 646382, 262 FSHN Washington State University Pullman WA 99164-6382

509-335-7907 corley@wsu.edu http://-entomology.wsu.edu/personal/laura_corley/index.html

Wolbachia Research

We are soliciting applications from individuals interested in either graduate-level or postdoctoral research on the biology of Wolbachia. These endosymbiotic bacteria are perhaps the most widespread parasites on earth and are likely to have profound effects on the ecology and evolution of their host species. The research is funded by a 5-year Frontiers in Integrative Biological Research (FIBR) grant from NSF. The proposed research aims to integrate approaches spanning genomics, genetics, functional biology, evolution, ecology, and biogeography. Training will thus be cross-disciplinary in nature, and individuals will have opportunities to work at multiple institutions, including the University of Rochester (John Werren (PI), John Jaenike, Mitsu Ogihara), UC - Riverside (Richard Stouthamer, Cheryl Hayashi, John Heraty), UC - Santa Cruz (Bill Sullivan), the Smithsonian Tropical Research Institute - STRI (Don Windsor), the American Museum of Natural History - AMNH (Rob DeSalle), the Marine Biological Laboratory -MBL (Jennifer Wernegreen), the Institute for Genomic Research -TIGR(Herve Tettelin) and Yale (Kevin White). Participants who currently have available positions for technicians (T), graduate students (G) or postdoctoral researchers (P) are indicated below along with their email address. Please send initial inquires to any of these individuals via email.

University of Rochester - John (Jack) Werren (T,G,P) werr@mail.rochester.edu - John Jaenike (G) joja@.mail.rochester.edu - Mitsunori Ogihara (G) ogihara@cs.rochester.edu

UC Riverside - Richard Stouthamer (G) richards@ucrac1.ucr.edu - Cheryl Hayashi (P) chayashi@citrus.ucr.edu

UC Santa Cruz - William Sullivan (G) sullivan@darwin.ucsc.edu

AMNH - Rob DeSalle (G) desalle@amnh.org

STRI - Donald Windsor (P) windsord@tivoli.si.edu

MBL - Jennifer Wernegreen (G) jwernegreen@mbl.edu John (Jack) Werren Professor of Biology Biology Department University of Rochester Rochester, NY 14627 Email: werr@mail.rochester.edu Please use this in reply Website: http://www.rochester.edu/College/-BIO/labs/WerrenLab/ Phone: (585) 275-3694 Fax: (585) 275-2070

Jack Werren <werr@mail.rochester.edu>

Jobs

BamfieldMarineSciCenter Director

Director- Bamfield Marine Sciences Centre

Applications are invited for the post of Director of the Bamfield Marine Sciences Centre; anticipated appointment date is July 1st 2004.

BMSC is a leading national and international marine sciences centre located on the west coast of Vancouver Island. Undergraduate and graduate courses and public outreach programs are offered and some 90 faculty and graduate students conduct research at Bamfield each year. The Centre is operated by the Western Canadian Universities Marine Sciences Society, a consortium of five universities. (University of British Columbia, Simon Fraser University, University of Victoria, University of Calgary, University of Alberta). We are seeking candidates with a strong record of ongoing research leadership, clearly demonstrated administrative experience, and a dedication to marine science education. Further information can be found at: http://-www.bms.bc.ca/ The closing date for applications is November 30th, 2003, or until the position is filled. Applications should include a curriculum vitae, publications list and the names and contact information of three referees and be sent to: Dr. P. Michael Boorman, Bamfield Director Search Committee Chair, c/o Dean's Office, Faculty of Science, University of Calgary, Calgary, AB T2N 1N4, Canada or to mboorman@ucalgary.ca.

In accordance with Canadian Immigration requirements, the search will focus in the first instance on Canadian citizens and permanent residents of Canada but others will be considered. The member universities are committed to employment equity. –

A. Richard Palmer Department of Biological Sciences University of Alberta Edmonton, Alberta T6G 2E9 CANADA phone: (780) 492-3633 message: (780) 492-3308 FAX: (780) 492-9234

http://www2.biology.ualberta.ca/palmer/palmer.html (biological asymmetries, software, course notes)

Rich Palmer <rich.palmer@ualberta.ca>

HarvardU CuratorialAssist

Dear Colleagues, we have the following position open. Application may be made at the website below. Brian Farrell

http://jobs.harvard.edu/jobs/summ_req?in_post_id=-19235

Requisition Number 17184 Title Curatorial Assistant II (Curatorial Assistant-Colefgoptera) School / Unit Organismic and Evolutionary Biology Department Museum of Comparative Zoology Location Cambridge Full Or Part Time Full-Time Salary Grade 051 Union HUCTW Eligible for Overtime Date Posted 06/26/2003

Duties And Responsibilities Position in the Museum of Comparative Zoology, Department of Entomology. Reports to the Curatorial Associate in the Department. Assists Curator of Coleoptera with curation of the DNA and Tissues collection. Performs identification of specimens using molecular systematic techniques. Incorporates DNA samples and other molecular materials into the collection. Develops procedures and maintains database of molecular specimen materials. Oversees, prepares and maintains loans and exchanges of molecular materials and primers. Serves as a principal source of specialized information on the molecular systematics facility and collection to visiting scholars, faculty, staff, students, and general public. Responds to technical inquiries and composes correspondence related to the facility and collection of molecular materials. Performs budget maintenance and reconciliation including ordering supplies from vendors, tracking orders, processing invoices, etc. Addresses technical problems and procedures, including preservation, developments in specimen conservation, and preparation and identification techniques. Performs related duties, including assisting with curatorial needs of main insect collection, as required.

Required Education College background in entomology and/or molecular biology. 1-2 years of collections-related experience, including knowledge of museum loan procedures preferred. Familiarity with computer programs used in DNA sequence analysis and systematics, such as Sequencher and PAUP, and with literature relating to entomology and molecular systematics preferred.

Harvard University is an equal opportunity employer committed to diversity.

– Brian D. Farrell Professor of Biology Curator in Entomology Museum of Comparative Zoology Harvard University 26 Oxford Street, Cambridge, MA 02138 http://-/www.oeb.harvard.edu/faculty/farrell/

HarvardU PlantEvolGenomics

Harvard University Professor Plant Evolutionary Genomics

The Department of Organismic and Evolutionary Biology at Harvard University invites applications for a tenured professorship in plant evolutionary and comparative genomics with an emphasis on mechanisms of adaptation. We seek to appoint a person who will sustain an innovative research program and contribute to teaching at the graduate and undergraduate levels. We especially welcome applications from female and minority candidates. For further information on the Department, see http://www.oeb.harvard.edu; for the Harvard University Herbaria, see http://-www.herbaria.harvard.edu .Applicants should submit a curriculum vitae, statements of research and teaching interests, and the names and addresses of three references to: Daniel L. Hartl, 2119 Biological Laboratories, 16 Divinity Avenue, Harvard University, Cambridge, MA 02138. Applications will be reviewed starting November 15, 2003. Harvard University is an Affirmative Action/Equal Opportunity Employer.

Daniel Hartl <dhartl@oeb.harvard.edu>

HaverfordCollege MolCelEvolution

MOLECULAR AND CELLULAR EVOLUTION ASSISTANT PROFESSOR OF BIOLOGY, HAVERFORD COLLEGE

Haverford College seeks an outstanding individual for a new tenure-track position in Molecular and Cellular Evolution to begin Fall 2004. The successful candidate will contribute to a vibrant curriculum and receive teaching credit for maintaining an active research program engaging undergraduate students. Interest in developing interdisciplinary programs as well as con-

tributing to courses in statistics and/or computer science is welcomed. At least two years of post-doctoral research experience required. Send letter of application, c.v., statements of research plans and teaching interests, and three current letters of reference by October 15, 2003 to: Annette Barone, search secretary, Haverford College, 370 Lancaster Avenue, Haverford, PA 19041-1392. Questions to Karl Johnson, Dept. Chair (kjohnson@haverford.edu). Haverford College (http://www.haverford.edu) is an Equal Opportunity/Affirmative Action Employer and, to diversify its faculty and enrich its curriculum, women and minority candidates are especially encouraged to apply.

Karl Johnson kjohnson@haverford.edu Associate Professor and Chair Department of Molecular, Cellular and Developmental Biology Haverford College Haverford PA 19041

Karl Johnson <kjohnson@haverford.edu>

Hawaii EvolDiseases

PIERC PROJECT TECHNICIAN ID# 23468. Pacific Cooperative Studies Unit (PCSU), Biocomplexity of Introduced Diseases in Hawaii, and USGS-Biology, Pacific Islands Ecosystem Research Center (PIERC). Regular, Full-Time, RCUH Non-Civil Service position, located in Hawaii Volcanoes National Park on the island of Hawaii. Continuation of employment is dependent upon program/operational needs, satisfactory work performance, and availability of funds. Minimum Monthly Salary: $2,105.00. Duties: Assists the Co-Principal Investigators with molecular genetic studies of native, indigenous, and invasive species in Hawaii and the Pacific, including their parasites and pathogens, and the application of molecular methods to disease diagnostics. Duties include, but are not limited to: application of basic laboratory skills, assist in ordering, purchasing and inventory of supplies, maintaining and replenishing chemical solutions for routine use, DNA extraction and qualification, genetic analyses using Polymerase Chain Reaction (PCR),gel electrophoresis, computer-based data analyses, summarizing laboratory data for reports. Minimum Qualifications: Bachelor's Degree from an accredited four (4) year college or university in Biology, Zoology, Wildlife Science, or other Biological discipline. Able to organize and complete multiple laboratory procedures on a daily basis. Able to safely handle chemicals and work with high attention to detail for completion and verification of laboratory procedures. Willingness to assist in routine laboratory functions, including ordering and inventory of supplies, and maintenance of laboratory equipment. Able to complete genetic analyses using PCR. Able to maintain and update databases for records and data storage. Able to successfully perform multi-task duties as described. Desirable Qualifications: One (1) year research experience (paid or volunteer) involving the application of molecular methods to biologically related issues. Inquiries about application process: contact Lynnette Kinoshita 808-956-3932 (Oahu). Inquiries about position duties: contact Carter Atkinson, (carter_atkinson@usgs.gov) or Susan Jarvi (jarvi@hawaii.edu). Application Requirements: See www.rcuh.com and click on "Employment" for additional information regarding employment. You must apply through our on-line web application process by navigating to Current Job Vacancies unless you do not have access to the Internet. Other applicants may apply by submitting resumes, cover letter with ID#, referral source and narrative of your qualifications for position; salary history, names, phone numbers and addresses of three supervisory references and copy of degree(s)/transcripts/certificate(s) to qualify for position via: a) fax: (808) 956-5022 or b) mail: Director of Human Resources, Research Corporation of the University of Hawaii, 2530 Dole Street, Sakamaki Hall D-100, Honolulu, HI 96822. Closing Date: October 10, 2003. EEO/AA Employer.

"Susan I. Jarvi" <jarvi@hawaii.edu>

IndianaU DaphniaLabTech

A full-time research associate position is available in the biology department at Indiana University to work in a lab focusing on the freshwater crustacean Daphnia. Start date is negotiable, but could be as early as October 1, 2003. The position is funded by a 5-year grant to study the causes and consequences of recombination. Initially the position is for one year, possibility to extend contingent upon performance.

Job Description: The successful candidate will be responsible for the day-to-day operation of a wet lab maintaining large stocks of Daphnia. Duties include preparation of media, clone maintenance, purchasing and management of supplies and equipment, maintenance of algae cultures, data and stock management, general troubleshooting of lab facilities and equipment,

and supervising and training undergraduate lab assistants. Some weekend/holiday work will be necessary.

Necessary qualifications: The successful candidate must be detail-oriented and have excellent organizational and time-management skills, good communication skills, the ability to work independently as well as part of a team, and an understanding of scientific operations and record-keeping.

Desired qualifications: Bachelors degree in a relevant field or prior experience working in a live-animal lab, working knowledge of freshwater biology, problem-solving skills, ability to supervise undergraduate assistants, and the initiative to become a resource for other members of the lab.

Salary: 25K/yr, with academic benefits.

Please direct inquiries, including a cover letter and a CV or resume including the names and contact information of three references, to: Michael Lynch, Dept. of Biology, Indiana University, Bloomington IN 47405; mlynch@indiana.edu.

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Jeffry L. Dudycha, Ph.D. jdudycha@bio.indiana.edu 812 / 856-0115 Dept. of Biology, Jordan Hall Indiana University Bloomington, IN 47405-3700

Jeff Dudycha <jdudycha@bio.indiana.edu>

IowaStateU Phylogenetics

<body>

The newly formed Department of Ecology, Evolution, and Organismal Biology (EEOB) at Iowa State University seeks one or more tenure-track assistant professors in evolutionary biology whose research focuses on phylogenetics or the evolution of development. EEOB (http://www=-
.ag.iastate.edu/departments/eeob/home.html) comprises 32 faculty members who use integrative approaches that bridge traditional disciplines and span multiple levels of biological organization. Successful candidates are expected to develop a competitively funded research program and contribute to undergraduate and graduate teaching. Applicants must have Ph.D. in Evolution or related field and demonstrate excellent research and teaching potential. Applicants should submit a curriculum vitae, statements of research/teaching interests and selected reprints, and have three letters of recommendation sent to Dr. Lynn Clark, Search Committee Chair, EEOB Department, Iowa State University, Ames, IA 50011-1020 by November 1, 2003 for full consideration. ISU is an EO/AA employer. Women and members of minority groups are encouraged to apply. Contact: Dr. Lynn Clark, Voice: (515) 294-8218; FAX: (515) 294-1337; E-mail: lgclark@iastate.edu

</body>

IowaStateU Phylogenetics 2

There was an error in the web link in this evoldir posting of last week.Please see http://www.eeob. iastate.edu for the new departmental web page. The newly formed Department of Ecology, Evolution, and Organismal Biology (EEOB) at Iowa State University seeks one or more tenure-track assistant professors in evolutionary biology whose research focuses on phylogenetics or the evolution of development.EEOB (http://www.ag .iastate.edu/departments/eeob/home.html) comprises 32 faculty members who use integrative approaches that bridge traditional disciplines and span multiple levels of biological organization.Successful candidates are expected to develop a competitively funded research program and contribute to undergraduate and graduate teaching.Applicants must have Ph.D. in Evolution or related field and demonstrate excellent research and teaching potential.Applicants should submit a curriculum vitae, statements of research/teaching interests and selected reprints, and have three letters of recommendation sent to Dr. Lynn Clark, Search Committee Chair, EEOB Department, Iowa State University, Ames, IA 50011-1020 by November 1, 2003 for full consideration.ISU is an EO/AA employer.Women and members of minority groups are encouraged to apply.Contact: Dr. Lynn Clark, Voice: (515) 294-8218; FAX: (515) 294-1337; E-mail: lgclark@iastate.edu lgclark@iastate.edu

LouisianaStateU EvoDevo

EVOLUTIONARY DEVELOPMENT - Louisiana

State University

The Department of Biological Sciences at Louisiana State University invites applications for a tenure-track Assistant Professor position in the area of evolutionary developmental biology. We define this position broadly to include, for example, molecular aspects of the evolution of development, evolutionary morphology, developmental constraints on form, and functional morphology. A Ph.D. or equivalent degree in a biological science or related field, and postdoctoral experience is required. The successful candidate will be expected to develop a strong, extramurally funded research program and contribute to teaching and advising at the graduate and undergraduate levels. The startup package is competitive, the teaching load is modest, and the intellectual environment is diverse and stimulating. Review of applications will begin November 3, 2003, and will continue until a suitable candidate is identified. Send curriculum vitae (including e-mail address), statements of research and teaching interests, three letters of recommendation, and no more than three representative publications to: Dr. Mohamed A. F. Noor, Chair, Evolutionary Development Search, Department of Biological Sciences, Louisiana State University, 202 Life Sciences Bldg., Baton Rouge, LA 70803 U.S.A. Ref. Log #0336. Additional information about the LSU Department of Biological Sciences is available at our website: http://-www.biology.lsu.edu .

LSU is an Equal Opportunity/Equal Access Employer.

Mohamed A. F. Noor mnoor@lsu.edu Associate Professor Tel: 225-578-8556 Department of Biological Sciences Lab: 225-578-7081 Life Sciences Bldg./ Annex FAX: 225-578-2597 Louisiana State University Baton Rouge, LA 70803 USA http://www.biology.lsu.edu/-webfac/mnoor/Noorlab.html

LouisianaStateU Genomics

Assistant/Associate/Full Professor Genomics Louisiana State University

The Department of Biological Sciences at LSU invites applications for a tenure-track (open rank) position in Genomics, available August 2004. The incumbent will employ molecular genetics and/or computational biology (e.g., genomics, informatics) to address questions in comparative, functional or computational genomics. Desired qualifications would include applicants whose research complements our existing strengths in evolutionary and comparative genomics. The start-up package for this position will be highly competitive and commensurate with the applicants qualifications. The position has been made possible through the Governors Biotechnology Initiative, with the goal of enhancing biotechnology in Louisiana. A Ph.D. or equivalent degree in a biological science or related field and postdoctoral experience are required. The successful candidate will be expected to develop a strong, extramurally funded research program, and contribute to teaching at the graduate and undergraduate levels. Candidates for senior positions will be expected to have maintained a nationally competitive research program. Review of applications will begin Nov 14, 2003, and will continue until a suitable candidate is identified. Send curriculum vitae, including e-mail address, a 2-3 page statement of research & teaching interests, 3 letters of recommendation (assistant professor applicants only), and representative publications to:

Genomics Search c/o Dr. Mark A. Batzer Department of Biological Sciences 202 Life Sciences Bldg. Louisiana State University Baton Rouge, LA 70803 USA. Ref. Log #0329

Additional information about the Department of Biological Sciences is available at http://-www.biology.lsu.edu .

LSU is an equal opportunity/equal access employer

Mohamed A. F. Noor mnoor@lsu.edu Associate Professor Tel: 225-578-8556 Department of Biological Sciences Lab: 225-578-7081 Life Sciences Bldg./ Annex FAX: 225-578-2597 Louisiana State University Baton Rouge, LA 70803 USA http://www.biology.lsu.edu/-webfac/mnoor/Noorlab.html

Madrid ConservationGenetics

We are seeking for candidates to fill a research contract associated to project “Optimal design of conservation programmes through the joint use of classical strategies and new technologies: theoretical and practical studies”. The work will be developed in the Department of Animal Breeding of the Instituto Nacional de Investigacin y Tecnologa Agraria y Alimentaria (INIA) de Madrid (Spain). Starting date will be 01/01/2004 and the post is offered for 4 years. Gross salary will be 20.480 euros per year (approximately 20% of taxes).

Requirements:

- Degree in a field related to Genetics (Biology, Biochemistry, Veterinary or similar).

- Experience in computer programming (FORTRAN or C) especially in the simulation of genetic processes.

- Basic knowledge of Population and Quantitative Genetics.

For further information, contact with Miguel Ángel Toro (toro@inia.es) o Jesús Fernández (jmj@inia.es).

****** Jesús Fernández Martín Departamento de Mejora Genética Animal 34-91 3471487 Instituto Nacional de Investigación y 34-91 3572293 (FAX) Tecnología Agraria y Alimentaria (INIA) jmj@inia.es Crta. A Coruña Km. 7,5 28040 Madrid (SPAIN) http://-webs.uvigo.es/genxb2/ ******

Jesús Fernández Martín <jmj@inia.es>

NCStateU ArthropodGenomics

FACULTY POSITION

POSITION: Assistant/Associate Professor in Arthropod Genomics; 12 month, tenure-track appointment; initially 80% research, 20% teaching.

SALARY: Commensurate with training and experience.

QUALIFICATIONS: Ph.D. in Entomology, Molecular Biology, Genetics, or related field.

Experience with Arthropod Molecular Biology or Arthropod Genetics required.

RESPONSIBILITIES: The incumbent is expected to develop an innovative research program in functional and/or comparative genomics of arthropods. Potential areas of research include, but are not limited to: examination of the molecular-genetic basis of complex traits (eg. microbe/arthropod interactions, plant/herbivore interactions, other life history and behavioral traits), genetics and molecular biology of arthropod development/reproduction. The incumbent is expected to obtain extramural funding for basic and/or applied research projects, and will participate in departmental/interdepartmental graduate training programs. Teaching responsibilities will include a graduate course in arthropod genomics, or functional genomics, that will be appropriate for students throughout the College of Agriculture and Life Sciences. For more information see http://entomology.ncsu.edu/jobs/genomics.html

APPLICATION: Applications will be accepted until November 15, 2003 or until a suitable candidate is selected. Applicants should submit: a letter stating their research and teaching goals, curriculum vitae, official transcripts, reprints, and the names and addresses of at least 3 references to:

Dr. James Harper, Head Department of Entomology, Box 7613 North Carolina State University Raleigh, NC 27695-7613

NewportOR MolGenetTech

Dear Evoldir Colleagues-

Please pass on this message to any students and/or colleagues who might be interested in the position.

I am seeking to hire a full-time permanent laboratory technician to conduct research in the areas of quantitative and molecular genetics of shellfish, especially oysters. The position is with the USDA Agricultural Research Service as part of a program for the selective breeding of cultured shellfish (http://www.ars.usda.gov/research/projects/-projects.htm?ACCN_NO@5577&fy 02) . The position is located in Newport, OR at Oregon State University's Hatfield Marine Science Center (http://-hmsc.oregonstate.edu/). The laboratory is designed for high-throughput genotyping of microsatellite and single-nucleotide polymorphisms, including automated DNA sequencing and liquid handling, and research will focus on using these methods for QTL mapping and gene expression analyses of loci contributing to life history traits , stress and disease resistance, economically important characters such as shelf-life and meat quality, and morphological characters such as shell shape and coloration patterns. Recently, a larger number of mapped microsatellite loci have become available in the Pacific Oyster, Crassostrea gigas, that will greatly facilitate this work, and SNP markers are in development in other laboratories. In addition the main campus in Corvallis has the technology for microarray analysis, and there is a growing amount of sequence data available will greatly facilitate the development of DNA chip technology in the near future.

The ideal candidate would have a Master's degree, but practical experience in a working lab would be considered equivalent if it provided familiarity with the necessary molecular techniques (DNA/RNA isolation,

PCR, electrophoresis, molecular cloning, DNA sequencing etc.). Familiarity with the bioinformatic and statistical approaches used to analyze molecular genetic data are also highly desirable , but training can be provided. There will be some field work required for animal rearing and data collection. I am looking for more of a high-level laboratory manager who will contribute to the intellectual aspects of the work rather than simply a pair of hands at the bench. There will be ample scope for independent projects, presentation of results at meetings and in publications, and participation in formulating research agendas. The advertised salary range is large, so there is ample scope for advancement for more junior applicants, and more senior applicants will be given full consideration.

Newport is a small, oceanfront city with unspoiled beaches, an active fishing fleet, and numerous tourist attractions located at the mouth of the Yaquina Bay on the central Oregon coast. The cost of living is very reasonable, especially compared to other west coast areas. Portland is about 2.5 hours north, and Corvallis is about 1 hour east.

Please email or call me with any questions, but be sure to apply according to the instructions in the official announcement below, including a cover letter that specifically addresses the required skills. The federal government can be very exacting when it comes to these details, and applications are filtered by human resources staff before being forwarded to scientists.

Sincerely,

Mark D. Camara USDA/ARS Aquaculture Genetics OSU - Hatfield Marine Science Center 2030 SE Marine Science Dr. Newport, OR 97365

Office: 541-867-0296 Fax: 541-867-0138 Mailto: Mark.Camara@oregonstate.edu

* OFFICIAL ANNOUNCEMENT: *

USDA - Agricultural Research Service POSITION ANNOUNCEMENT

Announcement Type: ALL SOURCES/ALTERNATIVE MERIT PROMOTION Position Title: Biological Science Technician (Animal)

Series/Grade: GS-0404-06/07/08

Promotion Potential: GS-09

Salary: GS-06: $28,644 - $37,237 per annum

GS-07: $31,830 - $41,380 per annum

GS-08: $35,252 - $45,828 per annum

Type of Appointment: Permanent

Location of Position: Newport, Oregon

Announcement Number: ARS-X3W-3424

Opening Date: August 11, 2003

Closing Date: September 29, 2003

Area of Consideration: All U.S. Citizens

APPLICATIONS WILL ALSO BE ACCEPTED FROM USDA SURPLUS AND FEDERAL DISPLACED EMPLOYEES IN THE COMMUTING AREA.

DUTIES: The incumbent will be engaged in all aspects of a new research program in shellfish genetics and selective breeding using both quantitative and molecular genetics, including assisting with the spawning, rearing and evaluation of animals in the hatchery and field, but emphasizing molecular aspects, including but not limited to: marker development and high-throughput genotyping and gene expression analyses in the laboratory. Duties, therefore, include collecting and archiving tissue samples, DNA/RNA extraction, PCR and reverse PCR, agarose gel electrophoresis, DNA

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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

NewportOR MolGenetTech 2

Dear Evoldir Colleagues-

Please pass on this message to anyone who might be interested in the position.

I am seeking to hire a full-time permanent laboratory technician to conduct research in the areas of quantitative and molecular genetics of shellfish, especially oysters. The position is with the USDA Agricultural Research Service as part of a program for the selective breeding of cultured shellfish (http://www.ars.usda.gov/research/projects/projects.htm?ACCN_NO@5577&fy 02) . The position is located in Newport, OR at Oregon State University's Hatfield Marine Science Center (http://hmsc.oregonstate.edu/). This new laboratory is being set up for high-throughput genotyping of microsatellites, AFLPs, and single-nucleotide polymorphisms, including automated DNA sequencing and liquid han-

dling. Research will focus on using traditional and molecular genetic methods for elucididating the genetic covariance structure, QTL mapping and gene expression analyses of loci contributing to life history traits, stress and disease resistance, economically important characters such as shelf-life and meat quality, and morphological characters such as shell shape and coloration patterns.

The ideal candidate would have a Master's degree, but practical experience in molecular genetics would be considered equivalent if it provided familiarity with the necessary molecular techniques (DNA/RNA isolation, PCR, electrophoresis, molecular cloning, DNA sequencing etc.). Familiarity with the bioinformatic and statistical approaches used to analyze molecular genetic data for population-level patterning and QTL mapping are also highly desirable, but training can be provided. There will be some field work required for animal rearing and data collection.

I am looking for more of a high-level laboratory manager who will contribute to the intellectual aspects of the work rather than simply a pair of hands at the bench. There will be ample scope for independent projects, presentation of results at meetings and in publications, and participation in formulating research agendas. The advertised salary range is large, so there is ample scope for advancement for more junior applicants, and more senior applicants will be given full consideration.

Newport is a small, oceanfront city with unspoiled beaches, an active fishing fleet, and numerous tourist attractions located at the mouth of the Yaquina Bay on the central Oregon coast. The cost of living is very reasonable, especially compared to other west coast areas. Portland is about 2.5 hours north, and Corvallis is about 1 hour east.

Please email or call me with any questions, but be sure to apply according to the instructions in the official announcement below, including a cover letter that specifically addresses the required skills. The federal government can be very exacting when it comes to these details, and applications are filtered by human resources staff before being forwarded to scientists.

<<<<APPLICATION DEADLINE IS 30 SEPTEMBER>>>>

Sincerely,

Mark D. Camara USDA/ARS Aquaculture Genetics OSU - Hatfield Marine Science Center 2030 SE Marine Science Dr. Newport, OR 97365

Office: 541-867-0296 Fax: 541-867-0138 Mailto: Mark.Camara@oregonstate.edu

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Philadelphia ResearchTech

A full-time research associate position is available at the Academy of Natural Sciences in Philadelphia in a lab affiliated also with the National Museum of Natural History, Smithsonian Institution. Research in the lab includes studies of worldwide distribution of disease vectors and expansion and hybridization patterns of introduced species; the interplay between vector population structure and parasite virulence; systematics of disease vectors and population genetics of avian malaria. The program is divided equally between projects related to avian malaria in Hawaii and its impact on endangered bird species and the unprecedented epidemic of West Nile virus in the continental US.

Here's the full job description:

Academy of Natural Sciences

Title: Research Associate/Technician Job #: 880 Issue Date: August 28, 2003

Closing Date: September 30, 2003

Group: Center for Systematics and Evolutionary Biology - Section: Genetics of Disease Vectors and Agents

Reports To: Dina M. Fonseca

Area of Consideration: Molecular Genetics

Duties: Provides research and analytical support for molecular genetics research on mosquitoes and parasites. Laboratory procedures includes isolation of DNA from tissues, set-up and running of polymerase chain reactions (PCR), analysis of the PCR products and sequencing products on automated sequencers. Preparation and screens of genomic libraries enriched for microsatellites. Entering of data into computer database. Assistance with general lab maintenance, preparation of solutions, inventory and stocking of supplies.

Qualifications: The specialized experience required for this position is work performed in a controlled environment. Examples of qualifying specialized experience include: Research activity or control program work involving isolation of DNA from tissues. OR Successful completion of a full 4 year course of study leading to a bachelor's degree with major study or at least 24 semester hours in any combination of courses such as biology, chemistry, statistics, entomology, animal husbandry, botany, physics, agriculture, or mathematics. At least 6 semester hours of courses must have been directly related to the position.

Selective Factors:

1. Knowledge of basic methods of molecular genetics.

2. Knowledge of laboratory procedures such as isolation of DNA and polymerase chain reactions (PCR).

3. Ability to use a variety of computer applications on a personal computer such as word processing, database and sequencing and DNA sizing software packages.

Salary: 25K/year, with benefits (contact Barbara Krupka at ANS-OHR at (215) 299 1083 for details).

NOTE: relocation expenses will not be paid

TO APPLY: Send resume, short description of long term career plans, and two contact references to:

Dr. Dina Fonseca

Academy of Natural Sciences 1900 Benjamin Franklin Pkwy Philadelphia, PA 19103-1195 Or by e-mail to: fonseca@acnatsci.org

The Academy of Natural Sciences is an Equal Employment Opportunity Employer

"Dina M. Fonseca" <fonseca@acnatsci.org>

PurdueU Bioinformatics

FACULTY POSITION(s) PURDUE UNIVERSITY BIOINFORMATICS AND SYSTEMS BIOLOGY

Purdue University is currently expanding its interest in BIONFORMATICS AND SYSTEMS BIOLOGY, and seeks THREE tenure-track (open-rank) Professors in these areas. Qualified individuals should hold a Ph.D., or have postdoctoral experience, in a biological science and work on significant biological problems that can benefit from an interdisciplinary team-work approach involving informatics. Areas of special interest include, but are not limited to: systems biology, proteomics, metabolomics, modeling or dynamics of protein complex systems or protein-protein interaction (interactome), simulation or modeling of cell/pathway systems, and related areas. Problems that challenge the current boundaries of algorithmic development and computational capacity that are of particular interest involve the modeling of virtual cell and/or organisms, pathway analysis, and data mining of biological information (genome, proteome, metabolome, etc.).

These positions complement Purdue's ongoing efforts in Bioinformatics, Systems Biology, Genomics, Sta-

tistical Genetics and Genomics, and are part of a School of Science initiative involving many other departments across campus. Other areas of excellence that the School of Science is focusing on include: climate change, computational science, massive data, membranes, nanoscience, and science education research. Reflecting the interdisciplinary and collaborative nature of Bioinformatics, it is expected that these positions will be joint appointments between Schools and Departments. Purdue University recently established Discovery Park http://www.purdue.edu/-DiscoveryPark for the purpose of fostering an innovative interdisciplinary environment.

The successful candidate will have an interdisciplinary approach to research that is demonstrated by both scholarly achievement and a record of publication in leading journals, and is will to contribute to the growing Bioinformatics course offerings at Purdue. The ability to secure extramural funds in support of interdisciplinary collaborative research is essential, as are outstanding attitude and communication skills.

Please submit curriculum vitae, representative publications, descriptions of research and teaching interests at http://www.science.purdue.edu/COALESCE/. . Special attention should be given in the research statement as to how experimental and computational approaches are integrated to address global understanding of living systems. Applications will be reviewed beginning Oct. 1, 2003, and will continue until the positions are filled. Purdue University is an Equal Opportunity/Equal Access/Affirmative Action employer.

"R.W. Doerge" <doerge@stat.purdue.edu>

QueensCollege EvolEcol

FACULTY POSITIONS Queens College The City University of New York

The Biology Department of Queens College of the City University of New York invites applications for TWO TENURE-TRACK positions at the rank of ASSISTANT PROFESSOR in the broadly defined areas of Microbiology and Ecology. The successful candidates will be expected to develop independent research programs involving undergraduate and graduate students, and to participate in the teaching of undergraduate- and graduate-level courses. Applicants must have an earned doctoral degree, post-doctoral experience, and a strong record of research accomplishment. Salary (range $35,031 - $61,111 on a 9-month appointment) is commensurate with qualifications and experience. Evaluation of applications will begin October 15, 2003, and will continue until positions are filled.

Further information can be found at http://-www.qc.edu/Biology/ MICROBIOLOGIST Interested applicants in the area of microbiology should send a curriculum vita, a short summary of current and future research interests, and arrange to have three letters of reference sent to Microbiologist Search at the address below:

ECOLOGIST Interested applicants in the area of ecology should send a curriculum vita, a short summary of current and future research interests, and arrange to have three letters of reference sent to Ecologist Search at the address below:

Department of Biology, Queens College of the City University of New York, 65-30 Kissena Boulevard, Flushing, New York 11367-1597

An equal opportunity/affirmative action/IRCA/Americans with Disabilities Act Employer

Stephane Boissinot <stephane_boissinot@hotmail.com>

QueensUBelfast ResTech

Research Technician - molecular population genetics - in the group of Dr. Robert Paxton, School of Biology and Biochemistry, Queen's University Belfast, UK

Ref: 03/C332A

This post is available until 31 December 2005 to support an EU-funded molecular genetic project on the microsporidia parasites of bumble bees, carrying out PCRs, DNA cloning and sequencing, southern blotting, and genotyping with microsatellites.

Applicants must have 2 'A' levels plus GCSE in relevant subjects or BTEC NationalCertificate / Diploma, or equivalent, in an appropriate field (BTEC Higher NationalCertificate or equivalent for Grade D) and more than three years' experience (seven years' for Grade D) of working in a biological science laboratory and some experience of molecular biology techniques including PCR and cloning. Recent graduates with a relevant degree but less than three years experience will be considered for appointment at a lower grade.

Additional Information on the School of Biology and

Biochemistry can be found at http://www.qub.ac.uk/-bb/ and information on the EU project 'Pollinator Parasites' at http://www.entom.slu.se/res/-Bumble%20Bee/index.htm Salary Scale: Grade C GBP 12,999 - GBP 14,583, Grade D GBP 15,054 - GBP 17,880 per annum. Placement on appointment according to qualifications and experience and University grading structure.

Closing Date: 5.00 pm, Friday 10 October 2003

Please visit Queen's University website to download the application pack - http://www.qub.ac.uk/-jobs or alternatively contact the Personnel Department, Queen's University Belfast, BT7 1NN. Telephone 00-44-28-90273044 or 00-44-28-90273854 (answering machine). Fax: 00-44-28-90911040 or e-mail on personnel@qub.ac.uk

The University is committed to equal opportunities and to selection on merit. It therefore welcomes applications from all sections of society.

Fixed term contract posts are available for the stated period in the first instance but in particular circumstances may be renewed or made permanent subject to availability of funding.

For further details of the post, please contact Dr. Tek Tay on wtay@sun3.oulu.fi

Robert Paxton <r.paxton@qub.ac.uk>

RiceU Dictyostelium technician

A technician position is available immediately for work on the social amoeba Dictyostelium discoideum, a unique and exciting model organism for social evolution. D. discoideum has cooperation, conflict, and complete reproductive altruism in its social stage. It also has a short generation time, a sequenced genome, techniques for knocking out and modifying genes, and it can be easily studied in the laboratory and the field. The project, a collaboration with Dictyostelium genomics researchers at Baylor College of Medicine, involves finding genes underlying sociality, examining the evolutionary history of these genes, and testing ancestral forms in vivo. It also involves testing whether social conflict leads to rapid evolution and arms races, and determining how cheating is controlled. The position is funded by a large 5 year NSF grant from the Frontiers in Biological Research (FIBR) program. We are a friendly and interactive team of highly motivated investigators. We are seeking a person with a B.A. or a B. S. in a biological or bioengineering field interested in working with an ABI 3100 automated DNA sequencer, conducting experiments on D. discoideum, and teaching newcomers to the team. Experience with basic cell and molecular biology techniques, excellent time management, organizational and inter-personal skills are a plus. Please send an email to David Queller (queller@rice.edu) or Joan Strassmann (strassm@rice.edu) with a resume, statement of research experience, and the names, phone numbers and email addresses of three references. Women and minorities are particularly encouraged to apply. David C. Queller, Joan E. Strassmann, Department of Ecology and Evolutionary Biology, MS 170, Rice University, 6100 Main St. Houston TX 77005-1892.

– Joan E. Strassmann, Professor Dept. of Ecology and Evolutionary Biology, MS 170 Rice University, 6100 Main St., Houston TX 77005-1892 USA

phone: (713) 348-4922 fax: (713) 348-5232 e-mail STRASSM@RICE.EDU http://www.ruf.rice.edu/-~evolve/

SyracuseU Biocomplexity

Biocomplexity Faculty Positions

The Department of Biology at Syracuse University invites applications for two tenure-track positions (Assistant to Full Professor) to be filled by August 2004. Applications will be considered from individuals who already have, or who show a promise of developing, strong, extramurally funded and highly innovative research programs in ecology and/or evolutionary biology to join an emerging interdisciplinary research group in biocomplexity. Examples of suitable research interests include speciation, phylogenetics, coevolution, plant physiology, microbial ecology and trophic interactions. Successful applicants will complement current research strengths within the department and university intellectual community related to the evolution and functioning of complex adaptive biological systems in different environments. Syracuse University places a high priority on effective teaching. Successful candidates will be expected to be effective teachers at the undergraduate and graduate levels. The successful applicants will join a highly productive faculty with strong links to other programs at Syracuse University, including engineering, public and environmental pol-

icy, biochemistry and earth system sciences. Specific information about individual Biology faculty research programs may be found at http://biology.syr.edu/-facultyresearch/facultyresearch.html . The Syracuse biocomplexity group has close intellectual ties to more than 60 other faculty at several other universities including the State University of New York Environmental Science and Forestry school (SUNY-ESF) and Cornell University. Collaborations among the faculty in this group would allow successful applicants to explore several new interdisciplinary funding initiatives at NSF, including NSF's Biocomplexity Initiative, Emerging Frontiers, and Biology & Mathematics programs.

Applicants should forward (preferably as attachments in an e-mail: biosearch@cas.syr.edu) a curriculum vitae, a description of past research accomplishments, a clearly focused description of his/her proposed future research goals and a statement of teaching interests. We also request that applicants arrange to have at least three letters of reference sent to the address below. Please include the name, address, phone number and e-mail addresses of your references. The position will be open until filled, but to be assured your application receives full consideration, we urge that you arrange to have all necessary materials to us by October 15, 2003.

Application material should be addressed to:

Biocomplexity Faculty Search Department of Biology Syracuse University Syracuse, NY 13244 e-mail: biosearch@cas.syr.edu

sspitnic@syr.edu sspitnic@syr.edu

TrinityU EvolMicrobiology

Please note, although not specifically mentioned, microbiologists working in areas of ecology and evolution are encouraged to apply.

-Kevin _____ Department of Biology Trinity University 210-999-7236 klivings@trinity.edu

Tenure-Track Position in Microbiology, Trinity University

The Department of Biology is seeking a Microbiologist to begin an appointment in August 2004 as an Assistant Professor. We seek to hire an individual whose interests integrate well with existing faculty and who will participate in our active undergraduate research program (see www.trinity.edu/departments/biology). The Department is well equipped, and start-up funds are available to meet the individual needs of new faculty. Candidates are expected to (1) possess a Ph.D. Degree, preferably with postdoctoral research experience, (2) teach upper division courses in microbiology, (3) contribute to the introductory and/or non-majors curriculum, (4) be involved in academic advising, and (5) develop a research program involving undergraduate participation.

Applicants should send curriculum vitae, statement of teaching philosophy, summary of research interests and names and telephone numbers of three references to

Prof. David Ribble, Chair Department of Biology Trinity University One Trinity Place San Antonio, TX 78212-7230 USA

Review of applications will begin 17 October 2003. Women and minority candidates are strongly encouraged to apply. Trinity University is an Equal Opportunity Employer.

UArizona EvolBiol

FACULTY POSITIONS

DEPARTMENT OF ECOLOGY & EVOLUTIONARY BIOLOGY

UNIVERSITY OF ARIZONA

The Department of Ecology and Evolutionary Biology at the University of Arizona invites applications for tenure-track positions in the areas below. Our preference is to hire at the ASSISTANT PROFESSOR level, but appointment at the ASSOCIATE or FULL PROFESSOR rank is a possibility. The successful candidates will be expected to teach at the undergraduate and graduate levels and to develop externally-funded research programs of originality and depth. A Ph.D. in a related field is required. Please send curriculum vitae, research and teaching statements and three letters of recommendation to the indicated search committee chair at Department of Ecology & Evolutionary Biology, Biological Sciences West 310, University of Arizona, Tucson, AZ 85721-0088.

ECOLOGY: We are interested in candidates in all areas of ecology who perform research at any level of biological organization from organisms to ecosystems. Candidates working with any taxon and any combination of lab, field or theory-based methods will be considered.

Dr. Larry Venable, Chair.

ORGANISMAL BIOLOGY: We seek a candidate whose research focus is the whole organism, studying behavior, physiology, biomechanics, functional morphology, neurobiology, or allied fields. Dr. Daniel Papaj, Chair.

PLANT PHYLOGENETIC BIOLOGY: We seek an evolutionary biologist who studies the diversification of plants using molecular, developmental, computational or other methods. Dr. Robert Robichaux, Chair.

Review of application materials will begin October 06, 2003, and will continue until the positions are filled. Visit http://eebweb.arizona.edu/ for updated information. The University of Arizona is an EEO/AA Employer M/W/D/V.

papaj@u.arizona.edu

UBritishColumbia EvolBiol 2

The Department of Zoology at the University of British Columbia has an assistant professor position available in the area of evolutionary biology.

This position has been recently been advertised in Science and Nature, but the ad had a couple of confusing aspects. First, the ads appeared in mid-September with a quick October 1, 2003 closing date. In reality the short list will be drawn after October 15. Second, the start date was listed as January 1, 2004, but this should be taken as the earliest possible date, with a lot of flexibility.

Please feel free to contact me if you have any questions.

Mike Whitlock Chair, Search Committee whitlock@zoology.ubc.ca whitlock@zoology.ubc.ca

UCBerkeley EvolGeneticsStaff

Staff Research Associate The University of California, Berkeley is the preeminent public university in the country. Were also one of the leading employers in the San Francisco Bay Area. We are seeking a Staff Research Associate to work in the Evolutionary Genetics Laboratories of the Museum of Vertebrate Zoology.

You will participate in research applying modern genomics information and tools to problems in vertebrate evolutionary biology and genetics. You will also be responsible for constructing genomic libraries, supervising high-throughput sequencing, and sequencing analysis/assembly.

You must have a Ph.D. in molecular biology and genomics and experience in construction of genomic libraries, high throughput sequencing and associated technology, and primary analysis of DNA sequences. The ability to supervise and train researchers in the above methods is required. An interest in evolutionary biology and experience in comparative analysis of DNA sequences and SNP analysis is highly desired.

The salary range for this position is $37,300 to $67,100 plus benefits. The position is available September 1, 2003.

Please apply online http://jobs.berkeley.edu, indicating the job code 202. Applications will be reviewed on August 15, 2003. Additional information can be found at http://www.mip.berkeley.edu/mvz/ and at http://-hrweb.berkeley.edu/jobs/apply.htm. EOE

Thanks, Lisa Harris

“Lisa M. Harris” <missifu@uclink.berkeley.edu>

UCLBelgium PopBiol

Full-time tenure-track faculty position in population biology, Université catholique de Louvain, Belgium

The Unit of Ecology and Biogeography (Biodiversity Research Center & Faculty of Sciences) has a strong and diverse research program in terrestrial population biology. A full-time tenure-track faculty position is available in our unit, beginning in September 2004. The successful candidate will be responsible for teaching at one or more of the three levels of education (BSc, MSc, and PhD), as well as in the program for continuing education. She/He will develop a research program and supervise the work of MSc and PhD students. Applicants should have a PhD or equivalent, post-doctoral experience, and a strong publication record. Moreover, experience in and commitment to teaching at the university level, and the capability to undertake scientific research at a high level and to lead a research team are required. A command of both spoken and written French, or the willingness to acquire this within

one year of taking up the post is required for teaching. To be considered, an application should comprise: 1) a completed application form (available upon request) 2) a full curriculum vitae, 3) a bibliography, 4) abstracts of the most important publications, 5) a copy of the final degree, 6) a text of about 3500 characters describing the research the applicant wishes to carry out, and 7) a text of about 3500 characters explaining the applicant's views on teaching and education. In addition, three letters of recommendation from internationally renowned scientists should be sent to the Rector of the UCL. Applications should be sent to Prof. M. CROCHET, Rector of the UCL, Place de l'Université 1, B-1348 Louvain-la-Neuve, Belgium, with reference number SC / BIOL7 / 2004 / 841. Closing date: 15 December, 2003. For more information, visit the unit's website (http://www.ecol.ucl.ac.be) or contact Prof. T. Hance (Hance@ecol.ucl.ac.be, +32 10 47 34 93).

Renate Wesselingh <wesselingh@ecol.ucl.ac.be>

UCalgary PopEcol

POPULATION ECOLOGY THE UNIVERSITY OF CALGARY

The Department of Biological Sciences wishes to build on existing strengths in Ecology and Evolution (http://-/www.ucalgary.ca/ecology) by inviting applications for a tenure-track Assistant Professor Position from individuals with a strong background in Population Ecology. Individuals interested in dynamics of populations, predator-prey dynamics, or food-web dynamics are highly encouraged to apply. We are particularly interested in individuals who integrate mathematical theory with empirical work or mathematical biologists working in Population Ecology. The successful candidate will have a strong research record in Population Ecology, will be expected to establish an active, externally funded research program, and will participate in teaching at the undergraduate and graduate levels.

Calgary is a dynamic city (population over 900,000) with a lively cultural life and a very wide range of recreational opportunities. Calgary is only a one-hour drive to the Rocky Mountains. Banff, in Banff National Park, is less than an 80-minute drive west of Calgary. Calgary International Airport has excellent connections to European, far eastern and U.S. cities.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority. The University of Calgary respects, appreciates and encourages diversity.

A complete application should include a curriculum vitae, representative publications and statements of research and teaching interests. Candidates should arrange to have three letters of reference sent under separate cover. Deadline for receipt of all material is December 1, 2003. Send to Dr. D.M. Reid, Head, Department of Biological Sciences, Faculty of Science, University of Calgary 2500 University Dr. N.W., Calgary AB T2N 1N4. FAX: (403) 289-9311.

Steven M. Vamosi http://www.bio.ucalgary.ca/-divisions/ecology/

UDelaware GenetTech

Dear Evoldir Colleagues:

Please pass on this message to any students and/or colleagues who might be interested in this position.

Molecular genetics technician - Full-time position available 1 Oct 2003 working on evolution of host use in moths and parasitic wasps; responsibilities include DNA isolation, amplification, fragment analysis, and sequencing using robotics and automated capillary electrophoresis. Experience with molecular genetics techniques required; salary $26,500-32,937 per year plus benefits. Please send resume or curriculum vitae and names, addresses (including e-mail), and phone numbers of three references to Dr. Keith R. Hopper, United States Department of Agriculture, Agricultural Research Service, Beneficial Insect Introductions Research Unit, 501 South Chapel St., University of Delaware, Newark, Delaware 19713; email khopper@udel.edu, telephone 302-731-7330 ext 238, fax 302-737-6780. ARS is an equal opportunity employer.

UDenver MicroEcol

MICROBIAL ECOLOGIST ASSISTANT PROFESSOR

The Department of Biological Sciences, University of Denver, invites applications for a tenure track position

at the Assistant Professor level to begin September 1, 2004. We seek a microbial ecologist who is working with populations, communities and ecosystems, and/or biodiversity. The successful candidate will have a Ph.D. and post-doctoral experience in appropriate fields, will develop an extramurally funded research program, will be expected to supervise M.S. and Ph.D. students, and will teach General Microbiology and undergraduate and graduate courses in areas of specialty. Submit curriculum vitae, two recent publications, three letters of recommendation and statements of a) teaching philosophy and b) research interests to: Dr. Tom Quinn, Chair, Microbial Ecologist Search Committee, Department of Biological Sciences, University of Denver, Denver CO 80208. Applications should be received by November 22, 2003. The University of Denver is an equal opportunity/affirmative action employer. Information about the Department of Biological Sciences, including its new undergraduate major in Ecology and Biodiversity, can be found at http://www.du.edu/biology/ .

UDenver PopGenet Tech

FULL TIME RESEARCH TECHNICIAN MOLECULAR POPULATION GENETICS

A full time research technician is needed to perform molecular biological procedures for a large-scale genetic study of Trumpeter Swans. This position requires experience in various molecular techniques including PCR, DNA sequencing, DNA extraction, and microsatellite characterization. Candidates with additional experience in primer design, genetic studies of populations, and/or use of related software analytical tools are preferred. The successful candidate would be joining the Rocky Mountain Center for Conservation Genetics and Systematics, staffed by both university and government researchers and co-directed by Dr. Tom Quinn and Dr. Sara Oyler-McCance. Submit curriculum vitae and two letters of recommendation to: Dr. Sara Oyler-McCance, c/o Department of Biological Sciences, University of Denver, Denver CO 80208. Applications should be received by October 31, 2003. For further detail, contact Dr. Sara Oyler-McCance at 303-871-7782 or at soyler@du.edu.

UEastAnglia MolEvol

School of Biological Sciences , University of East Anglia

Lecturer in Molecular Ecology and Evolution

Applications are invited for the above position tenable from January 2004. Applicants should have research interests in the use of molecular genetic techniques to understand adaptation and evolution in populations and species of eukaryotic organisms.

Successful applicants will be expected to establish a research group and contribute to undergraduate teaching. They will join an active group of evolutionary geneticists and ecologists. The School is part of the Norwich Research Park, which includes several international Research Institutes. In particular the John Innes Centre has a Genome Laboratory that provides full genomic facilities.

The Lectureship will be a permanent appointment and is available immediately. Salary will be in the range £26,270 to £33,679 per annum (under review). As part of its commitment to recruiting and rewarding high quality staff, UEA has dispensed with the lecturer A scale.

The School has achieved an excellent international reputation with wide research interests. It was graded 5 in the 2001 Research Assessment Exercise and teaching has also been graded as “Excellent”.

Information about the School of Biological Sciences can be found at www.uea.ac.uk/bio/ Informal enquiries should be made to Professor GM Hewitt (e-mail: g.hewitt@uea.ac.uk, tel: +44 (0)1603 592182).

An application form should be obtained from the Personnel Office, University of East Anglia, Norwich NR4 7TJ (Internet: http://www.uea.ac.uk/personnel/-jobs/ or e-mail: personnel@uea.ac.uk or answerphone: 01603 593493), to be returned by Friday 17 October 2003. Please quote reference number AC474. Interviews will take place on Friday 21 November 2003 and applicants who have not heard by that date must assume they have been unsuccessful. –

Brent Emerson Lecturer in Evolutionary Biology Centre for Ecology, Evolution and Conservation School of Biological Sciences e-mail: b.emerson@uea.ac.uk University of East Anglia ph: (44) 01603 592237 Norwich NR4 7TJ fax: (44) 01603 592250 ENGLAND mob: (44)

0795 121 8827

UGeorgia EvolGenetics

A copy of the following ad will also soon appear in SCIENCE:

EVOLUTIONARY GENETICIST UNIVERSITY OF GEORGIA ASSISTANT PROFESSOR LEVEL, TENURE TRACK

An opportunity exists to join an active and interactive faculty of evolutionary biologists and geneticists at the University of Georgia. The research area is open but could include molecular ecology and evolution, population genetics, ecological and behavioral genetics, comparative phylogenetics, or similar disciplines in evolutionary genetics. Research emphasis may be empirical or theoretical, but should include a broad conceptual orientation, preferably with an organismal focus. The successful candidate will be expected to teach undergraduate and graduate courses in evolutionary biology and genetics. Applicants should provide a curriculum vitae with supporting materials, a cover letter including a brief statement of interests, and should arrange to have three letters of recommendation sent independently to: Evolutionary Genetics Search Committee, John Avise (Chair), Department of Genetics, University of Georgia, Athens, GA., 30602. Applications received before December 1, 2003, will be given priority consideration. The University is an Affirmative Action/Equal Opportunity Employer.

John C. Avise, Ph.D. Department of Genetics Life Sciences Building University of Georgia Athens, GA 30602 avise@uga.edu 706-542-1456 fax: 706-542-3910

John Avise <avise@uga.edu>

UHawaiiMonoa Bioinformatics

Assistant Professor, position no. 82070, general funds. Information and Computer Sciences (ICS) Department at UH-Manoa, full-time (9-month) tenure-track position to begin approximately in August 2004, pending position clearance and availability of funds. We are seeking a computational scientist whose research interests include developing new approaches to the analysis of large biological and ecological data sets. The candidate should have the interest and background to collaborate effectively with the life sciences community. The candidate should also have the computer science background to participate as an active faculty member in ICS. Duties: The duties include developing a strong bioinformatics research program and teaching undergraduate and graduate courses in bioinformatics. Minimum Qualifications: Applicants must have a Ph.D. (or equivalent degree) from an accredited college or university in computer science, biology, bioinformatics, genetics, evolutionary biology, or closely related field, and must demonstrate a strong aptitude for research, a commitment to effective teaching, and a student centered and community oriented attitude relevant to implementing the objectives of the University and the ICS Department. Desirable Qualifications: Research and teaching experience with graphical databases, quantitative data analysis, data visualization, and multimedia systems. Knowledge of Hawaiis native biota and conservation issues. Pay range: Salary commensurate with candidates qualifications and experience. To Apply: Interested applicants are invited to present a resume and contact information for three references. Please email a URL reference to your application (no attachments) to ics-search@hawaii.edu or send hardcopy to: Bioinformatics Search Committee, Dept. of Information and Computer Sciences, University of Hawaii at Manoa, POST 317, 1680 East West Road, Honolulu, HI 96822. Continuous recruitment: Review of applications will begin on Dec-22-2003 and will continue until the position is filled. Applications received after Dec-22-2003 may not receive full consideration. Inquiries: Additional information can be found at http://www.ics.hawaii.edu .

Don <donaldp@hawaii.edu>

UKansas EvoDevo

ASSISTANT PROFESSOR OF EVOLUTIONARY DEVELOPMENTAL BIOLOGY

The Department of Ecology & Evolutionary Biology at the University of Kansas invites applications for a tenure-track position as an Assistant Professor of evolutionary developmental biology beginning 18 August 2004 (exceptional candidates at higher ranks may, in some cases, be considered). The ideal candidate will have a developmental focus on evolutionary questions

using any organism or group of organisms (animals, plants, or other). Ph.D. (by date of appointment) required, postdoctoral experience preferred; commitment to excellence in research, service, and undergraduate/graduate education required, teaching experience preferred; commitment to seeking extramural funding for research required, demonstrated ability to secure such funding preferred. To apply, send curriculum vitae (with e-mail address), reprints of key papers, statements of current and future research plans and teaching philosophy and interests, and have at least three letters of recommendation sent to: Dorothy Johanning, University of Kansas, Department of Ecology and Evolutionary Biology, 1200 Sunnyside Avenue, Rm 2041, Lawrence, KS 66045-7534. Review of applications will begin 17 October 2003, and continue until position is filled. For more information visit . This position is contingent on final budgetary approval. The University of Kansas is an AAEO Employer.

Maria E. Orive Assistant Professor Ecology and Evolutionary Biology University of Kansas 1200 Sunnyside Ave. Lawrence, KS 66045-2106

phone: 785-864-3763 fax: 785-864-5321 email: morive@ku.edu

Maria Orive <morive@ku.edu>

UMaryland ChairBiol

POSITION OPEN: CHAIR

Department of Biology

University of Maryland

The Department of Biology at the University of Maryland, College Park invites nominations and applications for the position of Chair. We seek an outstanding researcher, with sustained external funding, who is strongly committed to scholarship, education and advancement of the department. Candidates should have research interests complementing our existing strengths, proven leadership ability, strong interpersonal skills, and credentials commensurate with full professor rank.

Biology is one of four departments in the College of Life Sciences. Its 35 tenure_ track faculty teach in the College_wide undergraduate program and mentor 100 graduate students and 50 postdocs. External funding is currently $5.3M/year. Faculty research spans the molecular, cellular, organismal, population and community levels, with overlapping focal areas in Neurobiology/ Biophysics, Ecology/Evolution, and Evolutionary Developmental Biology. Faculty participate in several interdisciplinary centers (see http://life.umd.edu/department_centers/-research_centers.html), including the Center for Computational Biology and Bioinformatics, the Center for Biodiversity, and the Center for Neuroscience, as well as several interdepartmental graduate programs (see http://life.umd.edu/graduate/index.html). Growth in the life sciences is a campus priority, and the department expects to fill multiple faculty positions over the next five years. Planning is well advanced for a new 155,000 ft2 Biology Building, housing state_ of_the_art research and teaching facilities. College Park is the flagship campus of the University of Maryland System. Its close proximity to Washington D.C., Baltimore and Maryland's I_270 Biotechnology Corridor offers opportunities for interaction with an extraordinary range of nearby research institutions, including the NIH, FDA, Smithsonian Institution, USDA and TIGR. For more information, visit our web site at http://-www.life.umd.edu/biology .

Applicants should email a curriculum vitae, statements of research interests, academic vision and administrative style, and names and addresses of four references to Charles Mitter, Search Chair, at cmitter@mail.umd.edu (phone 301_405_3912). Review of applications will begin 15 October 2003 and continue until the position is filled. The University of Maryland is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.

UMaryland CompBiol

DIRECTOR AND FACULTY POSITIONS

Center for Bioinformatics and Computational Biology

University of Maryland, College Park

The University of Maryland invites faculty applications at the assistant, associate, and full professor level for the Center for Bioinformatics and Computational Biology. The campus has committed resources to recruit several new faculty in the Center, including a Director. It is anticipated that the primary specialization areas of the new faculty will collectively span fields of computer science, mathematics and statistics, biology, and biochemistry. Their primary responsibility will be to

lead a nationally visible research program in selected areas of computational genomics, proteomics, molecular evolution and phylogenetics, complementing existing strengths at the University of Maryland. Candidates for the Director position are expected to be prominent senior researchers in one of these areas. All other applicants are expected to have publications and research experience beyond the Ph.D. degree with strong components of biological science and computing. Experience in interdisciplinary collaboration is an asset. The faculty will be housed in contiguous space set aside for the Center and will have access to significant high-end computing infrastructure through the University of Maryland Institute for Advanced Computer Studies. Faculty members in the Center are also affiliated with at least one other campus academic unit appropriate to their interests. There is ample potential for collaboration with other outstanding bioinformatics research groups nearby, in organizations such as NIH, Celera, TIGR, the University of Maryland Biotechnology Institute and the Smithsonian Institution. To apply, send a letter of application, curriculum vitae, and letters of recommendation, following the instructions available at the Centers web page: http://www.umiacs.umd.edu/-centers/bio.htm . The University of Maryland is an affirmative action, equal opportunity employer. Women and minorities are encouraged to apply. Applications completed by November 23, 2003 will receive full consideration.

Sarah Tishkoff, Ph.D. Assistant Professor Dept. of Biology Biology/Psychology Building Univ. of Maryland College Park, MD 20742 Tel: 301-405-6038 Fax: 301-314-9358 tishkoff@umd.edu http://www.life.umd.edu/-biology/tishkofflab/

Sarah Tishkoff <tishkoff@umd.edu>

UMaryland TechPopGenet

Technician Position in Human Population Genetics

A research assistant position is available in a human population genetics laboratory in the Department of Biology at the University of Maryland at College Park. Research foci in the lab include the study of African genetic diversity and population structure, human evolutionary history, the genetic basis of adaptation, and the genetic basis of resistance against infectious disease and evolutionary history of immune function genes. Additional information about the Tishkoff lab can be found at http://www.life.umd.edu/biology/-tishkofflab/ . UMD College Park is located in a suburb of Washington D.C. with easy access to a number of research institutions in the Baltimore/D.C. area including NIH, the Smithsonian, TIGR, and Johns Hopkins University. More information about the Biology Department and the Behavior, Ecology, Evolution, and Systematics (BEES) program at UMCP is available at http://www.life.umd.edu/biology/ and http://-/www.life.umd.edu/grad/BEES/ Candidates for the position must have a B.S. degree or higher in a biological sciences field. A minimum of one year laboratory research experience is required with knowledge of basic molecular biology and genetic analysis techniques. Job duties include assistance in research projects in the lab as well as laboratory management and maintenance. Salary for this position is commensurate with qualifications and experience.

Please send curriculum vitae and three letters of reference to Dr. Sarah Tishkoff, Dept. of Biology, Biology/Psychology Building #144, Univ. of Maryland, College Park, MD 20742 or e-mail to tishkoff@umd.edu. Women and minority members are strongly encouraged to apply. The University of Maryland is an equal opportunity/affirmative action employer.

Sarah Tishkoff, Ph.D. Assistant Professor Dept. of Biology Biology/Psychology Building Univ. of Maryland College Park, MD 20742 Tel: 301-405-6038 Fax: 301-314-9358 tishkoff@umd.edu http://www.life.umd.edu/-biology/tishkofflab/

Sarah Tishkoff <tishkoff@umd.edu>

UMichigan EvolGeneticsGenomics

Evolutionary Genetics and Genomics University of Michigan

The Department of Ecology and Evolutionary Biology solicits applications for a tenure-track position as Assistant Professor in any area of evolutionary genetics or genomics. Teaching responsibilities will include courses in evolution, genetics, and/or the individual's area of special expertise. Along with several other new faculty members, the person hired will join a vigorous and growing program in evolutionary biology in a new, dynamic department (see http://www.eeb.lsa.umich.edu). Women and minorities are encouraged to apply. The University is responsive to the needs of dual career couples.

For further information, contact eebevolgen@umich.edu. To apply, please send your curriculum vitae, brief summaries of research plans and teaching interests, evidence of teaching excellence, and copies of representative publications, and arrange to have three letters of reference sent, to:

Chair, Evolutionary Genetics Search Committee Department of Ecology and Evolutionary Biology University of Michigan Ann Arbor, MI 48109-1048

Review of applications will begin 24 November 2003, pending budgetary approval. The University of Michigan is a nondiscriminatory, affirmative action employer.

Douglas J. Futuyma Professor Department of Ecology and Evolutionary Biology University of Michigan Natural Science Building 830 North University Avenue Ann Arbor, MI 48109-1048

tel. (734) 936-0549 fax (734) 763-0544 dfutuyma@umich.edu

Douglas Futuyma <dfutuyma@umich.edu>

UNewcastle Tech

Vacancy for a Technician in the School of Biology:

Applications are invited for a research technician on an exciting NERC funded project entitled: "Maternal, paternal and genetic compatibility effects on fertility and offspring growth and sex in peafowl". In the project we aim to answer questions related to offspring fitness, parentage and mate choice. The position is available for up to 17 months starting 1 November 2003. The technician will need to have experience in molecular techniques, particularly in PCR, microsatellite typing and DNA sequencing.

Closing Date: 02.10.03.

For further information on the job and how to apply please look at: http://www.ncl.ac.uk/vacancies/-vacancy.phtml?ref=D602T

Best wishes, Kirsten

Dr. Kirsten Wolff University of Newcastle School of Biology Ridley Building, room 461 Newcastle NE1 7RU UK Phone: +44 191 222 5626 Fax: +44 191 222 5229 email: kirsten.wolff@ncl.ac.uk http://-www.staff.ncl.ac.uk/kirsten.wolff/

UNottingham CropGenetics

School of Biosciences - Division of Agricultural & Environmental Sciences

Lecturer in Crop Genetics

Applications are invited for the above post in the School of Biosciences based at the Sutton Bonnington campus. The successful candidate will be required to contribute to the teaching of plant and crop science, and will be expected to develop an innovative research programme in the area of crop genetics, using molecular approaches to address important agricultural traits.

Candidates must have a PhD and research experience in plant molecular genetics.

Salary will be within the range £22,191 - £33,679 per annum, depending on qualifications and experience.

Informal enquiries may be addressed to Professor M Holdsworth, tel: 0115 951 6100 6064 or Email: Michael.Holdsworth@Nottingham.ac.uk.

Further details and application forms are available on the WWW at: http://www.nottingham.ac.uk/hr/-vacancies/academic.html or from the Human Resources Department, Highfield House, The University of Nottingham, University Park, Nottingham, NG7 2RD. Tel: 0115 951 3263. Fax: 0115 951 5205. Email: Hr-Applications@Nottingham.ac.uk. Please quote ref. RUB/561S. Closing date: 13 October 2003.

Dr Ian C.W. Hardy Lecturer in Animal Population Biology Division of Agricultural Sciences School of Biosciences University of Nottingham Sutton Bonington Campus Loughborough Leics LE12 5RD UK

Direct line: (+44/0) 115 9516052 Messages: (+44/0) 115 9516063 Fax: (+44/0) 115 9516060 Email: ian.hardy@nottingham.ac.uk http://-www.nottingham.ac.uk/biosciences/ah/academic/-hardy.html

UPittsburgh EcolEvol

FACULTY POSITION

ECOLOGY-EVOLUTION

The Department of Biological Sciences at the University of Pittsburgh anticipates making one full-time tenure-track faculty appointment in the area of ecology-evolution beginning September 2004, pending budgetary approval. Applications are invited from excellent candidates in any area of ecology or evolution. This appointment is expected to be made at the ASSISTANT PROFESSOR level, but candidates with outstanding records will be considered at higher rank. Our Department is a broad-based, interactive community of researchers whose interests encompass most areas of modern biology. Excellent research and teaching facilities are available both on campus and at the University's Pymatuning Laboratory of Ecology. The successful candidate must have a Ph.D. and postdoctoral experience and will be expected to establish an extramurally funded research program, train graduate students, and participate in undergraduate education. In order to ensure full consideration, applications must be received by November 20, 2003. Applicants should send a curriculum vitae along with a summary of research interests and goals, teaching philosophy, and arrange to have at least three letters of reference sent to:

Ecology-Evolution Search Committee Department of Biological Sciences University of Pittsburgh Pittsburgh, PA 15260 (412) 624-4266

Further information on the Department of Biological Sciences is available at: http://www.pitt.edu/~biology. The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer. Women and members of minority groups under-represented in academia are especially encouraged to apply.

Tia-Lynn Ashman Associate Professor Department of Biological Sciences 4249 Fifth Avenue University of Pittsburgh Pittsburgh, PA 15260

Office: 412-624-0984 Fax: 412-624-4759 Email: tia1@pitt.edu http://www.pitt.edu/~biohome/

URochester EvolBiol

FACULTY POSITIONS Assistant/Associate/Full Professors of Biology

The Department of Biology at the University of Rochester announces a major new initiative, with faculty positions in Cell, Molecular, Developmental, and Evolutionary Biology. We anticipate making at least five new tenure-track appointments over the next several years. We are interested in individuals who value being in a Department that includes scientists studying both molecular mechanisms and evolution, and special consideration will be given to candidates who bridge the traditional disciplines of cell, molecular, developmental, and evolutionary biology. We will consider outstanding candidates in all areas of biology, and positions are available at all levels. Send curriculum vitae, a statement of research interests, and the names of three references to: Faculty Search Committee, Department of Biology, University of Rochester, Rochester, NY 14627. Review of applications will begin October 7, 2003. The University of Rochester is an Equal Opportunity Employer.

H. Allen Orr Department of Biology University of Rochester Rochester, NY 14627

phone: 585-275-3838 fax: 585-275-2070 http://-128.151.242.156/~orrlab/ORRHOME-2002.HTML

Allen Orr <aorr@mail.rochester.edu>

URochester WolbachiaTech

Job Annnouncement Laboratory Technician Position: A position is available for studies of intracellular bacteria in insects. The position is part of a 5-year NSF funded project to investigate molecular genetics and evolution of Wolbachia, a widespread and important group of intracellular bacteria. Experience is desired in standard molecular genetic techniques such as DNA and RNA preparation, PCR, quantitative PCR, cloning, and sequencing. Some experience with programs for sequence and phylogenetic analysis is desired. The person will assist in some administrative aspects of the project. Therefore good organizations skills are a plus. If interested, please contact John (Jack) Werren <werr@mail.rochester.edu>

Jack

John (Jack) Werren Professor of Biology Biology Department University of Rochester Rochester, NY 14627 Email: werr@mail.rochester.edu Please use this in reply Website: http://www.rochester.edu/College/-BIO/labs/WerrenLab/ Phone: (585) 275-3694 Fax: (585) 275-2070

Jack Werren <werr@mail.rochester.edu>

UToronto MicrobialInteractions

MICROBIAL INTERACTIONS, DEPARTMENT OF BOTANY, UNIVERSITY OF TORONTO

The Botany Department of the University of Toronto invites applications for a tenure-track position in Microbial Interactions at the Assistant Professor level, starting July 1, 2004. The successful candidate should have a Ph.D. and preferably, post-doctoral experience.

Research areas of interest to the department include microbial ecology, evolution, and population biology, and with specific regard to microbe-microbe or plant-microbe interactions. We encourage applicants in the following specialty areas: phyllosphere or rhizosphere interactions (including both pathogenic and mutualistic associations), environmental genomics, and population and community structure. Overall, the research program should address fundamental ecological or evolutionary questions relevant to microbial communities.

Teaching responsibilities will include participation in primarily team-taught undergraduate and graduate courses in the areas of biology commensurate with the successful applicant's expertise.

Applicants should arrange to have three letters of reference sent directly to the address below. In addition, the applicants should send their curriculum vitae, copies of significant publications, and statements of research and teaching interest to the Chair, Microbial Interactions Search Committee, Department of Botany, University of Toronto, 25 Willcocks Street, Toronto, ON M5S 3B2 Canada before October 15th, 2003. Inquires should be directed to Prof. David Guttman at david.guttman@utoronto.ca

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority. The University of Toronto offers the opportunity to teach, conduct research and live in one of the most diverse cities in the world and is strongly committed to diversity within its community. The University especially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities, members of sexual minority groups, and others who may contribute to the further diversification of ideas.

Anurag Agrawal <anurag.agrawal@utoronto.ca>

UWMadison PopGenetics

Assistant Professor in Evolution/Population Genetics

The Department of Zoology, University of Wisconsin-Madison, is pleased to announce a search for an assistant professor in Evolution/Population Genetics; below is the formal job announcement. We are particularly interested in attracting candidates with strong backgrounds in theoretical population (and/or quantitative) genetics, yet who also have broad perspectives in evolution. Researchers who either study pure theory, or conduct both theoretical and empirical research are encouraged to apply. Although the position is in the Department of Zoology, the position is not taxonomically restricted, and current faculty within the Department study animals, plants, and microbes. Although the application deadline is 5 November, 2003, we will begin reviewing applications on October 13, 2003, and highly recommend submission by this earlier date.

** Job Announcement **********

Faculty Position, Evolution/Population Genetics

The Department of Zoology at the University of Wisconsin-Madison, seeks a tenure-track assistant professor who is committed to excellence in undergraduate and graduate teaching, scholarly research and service. Appointment begins August 2004. Ph.D. required by start of appointment. Area of specialization: evolution/population genetics (regardless of taxa). Teaching expectations include theoretical population genetics at the graduate level.

Candidates should send CV, research statement, 3 publications, and ask for 3 letters of reference sent to:

Evolution Search University of Wisconsin, Madison Department of Zoology 430 Lincoln Dr. 433 Birge Hall Madison, WI 53706-1794

Application deadline: 5 November, 2003

An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply. Unless confidentiality is requested in writing, information regarding applicants must be released upon request. Finalists cannot be guaranteed confidentiality.

–

Carol Eunmi Lee, Ph.D. Department of Zoology 430 Lincoln Drive, Birge Hall 420 University of Wisconsin

Madison, WI 53706

Office: 608-262-2675 Lab: 608-262-9225 Fax: 608-265-6320 Email: carollee@wisc.edu http://www.wisc.edu/-zoology/faculty/fac/Lee/Lee2.html

UWisconsinMadison EvolPopGenet

Assistant Professor in Evolution/Population Genetics

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Carol Eunmi Lee, Ph.D. Department of Zoology 430 Lincoln Drive, Birge Hall 420 University of Wisconsin Madison, WI 53706

Office: 608-262-2675 Lab: 608-262-9225 Fax: 608-265-6320 Email: carollee@wisc.edu http://www.wisc.edu/-zoology/faculty/fac/Lee/Lee2.html

UdeLosAndes Evolution

Departamento de Ciencias Biológicas Universidad de los Andes, Bogotá

We seek to fill three full time positions in the following areas: - Ecology with emphasis on plant-animal interactions in the Neotropics. - Basic Biochemistry with emphasis on the use of molecular techniques in the Biomedical Sciences. - Molecular Biology with emphasis on molecular systematics, with experience in organisms such as viruses, bacteria, plants, fungi or animals.

A PhD degree, teaching and research experience are required. Successful applicants will be expected to lead a research program in their area of expertise, supervise undergraduate and graduate students, and carry out teaching.

Send curriculum vitae, copies of recent publications, one-page description of research program, and two letters of recommendation before November 1st, 2003 to: Mauricio Linares <mlinares@uniandes.edu.co <mailto:mlinares@uniandes.edu.co> >, Chairman, Departamento de Ciencias Biológicas, Universidad de Los Andes, Carrera 1 No. 18A-70, Bogotá, Colombia, with copy to, Alicia Ortega <aortega@uniandes.edu.co <mailto:aortega@uniandes.edu.co> >.

Departamento de Ciencias Biológicas Universidad de los Andes, Bogotá

Se requieren tres profesores de planta de tiempo completo en las siguientes áreas: - Ecología con énfasis en interacciones planta-animal en el Neotrópico. - Bioquímica Básica con énfasis en el uso de técnicas moleculares en Ciencias Biomédicas. - Biología Molecular con énfasis en sistemática molecular, con experiencia en organismos tales como virus, bacterias, plantas, hongos o animales.

Los aspirantes deben poseer título de Ph.D., experiencia en docencia e investigación. Se espera que el candidato desarrolle un programa de investigación en el área de su especialidad, oriente estudiantes de pregrado

y postgrado, y participe en docencia.

Enviar hoja de vida, copias de publicaciones recientes, una hoja describiendo el programa de investigación y dos cartas de recomendación antes del 1 de noviembre de 2003 a: Mauricio Linares <mlinares@uniandes.edu.co <mailto:mlinares@uniandes.edu.co> >, Jefe, Departamento de Ciencias Biológicas, Universidad de Los Andes, Carrera 1 No. 18A-70, Bogotá, Colombia, con copia a Alicia Ortega <aortega@uniandes.edu.co <mailto:aortega@uniandes.edu.co> >.

– Santiago Madriñán, Ph.D. Profesor Asociado Departamento de Ciencias Biológicas Universidad de los Andes Apartado Aéreo 4976 Bogotá, D.C. COLOMBIA Tel: +57(1)339-4949, ext. 2729 Fax: +57(1)332-4448

VictoriaU Evolution

The following ad will appear in Science next week:

Victoria University of Wellington is a dynamic, rapidly growing university in the capital city of New Zealand. The School of Biological Sciences (www.sbs.science.vuw.ac.nz) seeks to make four new appointments, including at least one at the Professorial level.

We seek to appoint in areas of existing or developing research and teaching strengths within the School, including: Genetics; Cell & Molecular Biology; Molecular Evolution & Ecology; Marine Biology; Microbiology; Proteomics; Biotechnology; Molecular Pathology and other Biomedical Sciences. Successful applicants will be active and productive researchers in one of these disciplines.

In three of these positions, we are seeking researchers who use contemporary molecular methodologies to advance their biological disciplines. Two of these positions are at the Lecturer/Senior Lecturer/Associate Professor level. The third position is a professorial appointment, where applicants will be required to demonstrate an ability to attract significant external research funding and guide development of molecular technologies and capacities across the School (refs SA0375B Professor of Biological Sciences; SA0376B Lecturer / Senior Lecturer / Associate Professor in Biological Sciences).

The fourth position is dedicated to a person in a research and teaching discipline of particular relevance to Maori and/or Pacific peoples and who can assist us to develop links to Maori and/or Pacific communities. Appointment to this position may be at any level, including Professor (ref SA0377B Lecturer / Senior Lecturer / Associate Professor / Professor - Biology of the Pacific).

The School of Biological Sciences provides a friendly and collegial working environment. We offer innovative teaching and research programmes supported by about 50 academic, research, and general staff, with about 100 research students. The present appointments arise from on-going expansion of the School in response to successes in both teaching and research.

Relocation and establishment costs are available subject to negotiation with successful applicants. In accordance with British and New Zealand conventions, a New Zealand Senior Lecturer and Lecturer are generally considered to be equivalent to, respectively, a North American Associate Professor and Assistant Professor.

Applications close 24 October 2003. Please quote the relevant reference number on all correspondence.

For further information about these positions, see the website: www.nzjobs.co.nz/vuw An application pack is available from the HR Officer, Faculties of Science, Architecture and Design, tel: +64-4-463 5100, fax: +64-4-463 5122 or email: science-appoint@vuw.ac.nz Victoria University of Wellington is an EEO employer.

– ********** Dr.Linley Jesson School of Biological Sciences Victoria University of Wellington PO Box 600 Wellington NZ

phone +644 463 5573 fax + 644 463 5331

WashingtonStateU Director

As seen in the 26 September issue of Science:

DIRECTOR, SCIENCE PROGRAMS

Washington State University (WSU) Vancouver and the School of Biological Sciences invite applications for appointment at the ASSOCIATE or FULL PROFESSOR level, beginning August 2004. Ph.D. is required. We seek an individual with an established, externally funded research program and demonstrated teaching, leadership, and administrative skills. Area of research is open; applicants complementing current strengths in ecology, environmental science, and neuroscience are preferred.

WSU, a Tier I research institution, offers competitive salaries, startup packages, and research support. Research expectations and teaching loads are consistent across the four WSU campuses. WSU Vancouver offers B.S. in biology and M.S. in environmental science. Continuing enrollment growth is expected to offer significant opportunities for program expansion. Located across the Columbia River from Portland, Oregon, WSU Vancouver features new facilities, significant opportunities for research, a small-college teaching atmosphere, many neighbor institutions and agencies for collaboration, and excellent quality of life. For more information, see website: http://www.vancouver.wsu.edu/programs/sci/default.htm.

Send curriculum vitae; up to three reprints; cover letter summarizing research, teaching interests, and administrative experience; and contact details for three letters of reference (including e-mail addresses) to: Dr. John Bishop, Chair, Director Search Committee, Washington State University, Vancouver, 14204 N.E. Salmon Creek Avenue, Vancouver, WA 98686-9600. E-mail: bishop@vancouver.wsu.edu. Review of applications begins November 28, 2003.

Washington State University is an Equal Opportunity/Affirmative Action Educator and Employer.

John Bishop Assistant Professor Ph: 360 546-9612 School of Biological Sciences Fx: 360 546-9064 Washington State University Vancouver www.vancouver.wsu.edu/fac/bishop/home-long.html Mailing Address: Washington State University 14204 NE Salmon Creek Ave Vancouver, WA 98686 USA

WoodsHole ResAssist

Dear Colleagues,

I anticipate an opening for a research assistant to work in an evolutionary genetics laboratory. Below is a tentative description of this position. Please pass this announcement to any that may be interested. Full details will be available upon formal approval of the position.

Sincerely

Paul Barber

RESEARCH ASSISTANT Supervisor: Dr. Paul Barber Location: Boston University Marine Program, Woods Hole, Massachusetts

Duties A Research Assistant position is available in a laboratory that uses molecular genetic techniques to investigate evolutionary process in marine environments. Duties will primarily consist of routine molecular genetic techniques (including, but not limited to, DNA extraction, PCR, Cloning, and DNA sequencing) and data analysis (e.g. sequence alignment, phylogenetic and population genetic analysis). Some general lab maintenance (e.g. ordering, collection management) and library research will also be expected.

Preference will be given to candidates who have previous molecular genetic experience and who have a demonstrated interest in pursuing scientific research. Further preference will be given to candidates who are interested in becoming intellectually as well as technically involved in the research

Minimum skills Bachelor's degree in Molecular and Cellular Biology, Genetics, Organismal Biology or related field. Basic computer skills including word processing (Microsoft Word) spreadsheets (Microsoft Excel), and graphics (Photoshop and Illustrator). Knowledge of phylogenetic software a plus. Ability to work independently on assigned tasks, work on multiple assignments with overlapping timelines, and meet schedules and timelines. Knowledge of basic research methods.

Contact: Please a letter explaining how this position fits into your professional goals, a Cirriculum Vitae, and names and addresses of three references.

Applicants can contact Paul Barber at: pbarber@bu.edu. Further information on the laboratory and it's activities can be found at: ww.bu.edu/biology/Faculty_Staff/barber.html – Dr. Paul H. Barber Boston University Boston University Marine Program 7 MBL Street Woods Hole, MA 02543 (508)289-7685 phone (508)289-7950 FAX pbarber@bu.edu pbarber@bu.edu

Other

Chromosome Size Database

Dear all,

Do you know of a database (or book / article) that lists chromosome sizes for different bird species? I'm interested in comparing sex chromosome sizes to test an obscure theory of a friend of mine...

Your help is highly appreciated, Martin

Martin Lercher, Ph.D. University of Bath Claverton Down Bath, Somerset BA2 7AY, UK

m.j.lercher@bath.ac.uk

Crustacean micros

Hi All,

I am going to construct some mantis shrimp microt libraries. In looking in the literature, most crustacean repeat motifs are dinucleotide. Do any of you out there have suggestions for tri or (preferably) tetra repeat motifs to try for?

Thanks

Paul Barber – Dr. Paul H. Barber Boston University Boston University Marine Program 7 MBL Street Woods Hole, MA 02543 (508)289-7685 phone (508)289-7950 FAX pbarber@bu.edu

Genetic diversity

Hi everybody, I estimated the genetic diversity in four populations, and I want to know if the diversity values are significantly different. So, I need to use some statistical test. Does somebody have any idea about which test (and program) should I use? Thanks a lot, Marina Marina S. Ascunce, Ph. D.

Department of Anthropology 1112 Turlington Hall P.O. Box 117305 University of Florida Gainesville, FL 32611-7305 Tel: 352 392 2253 extension: 247 FAX: 352 392 6929 e-mail: ascunce@anthro.ufl.edu

Marina Ascunce <ascunce@anthro.ufl.edu>

ITS region

Dear All, I would be grateful if anyone would provide me some advise on the use of ribsomal DNA and of the ITS1 and ITS2 region in higher vertebrate for phylogeographic studies. I didn't find enough literature with the normal browser like web of science,etc...therefore any comments or suggestion will be welcome. Please reply me at my private e-mail adress maffucci@szn.it

thanks for your help.

Fulvio Maffucci

ITS region answers

Dear all, I wanted to thank all the people that helped me in finding informations on using ITS for phylogenetic studies, here you will find a summary of the information that I get.

thanks again Ciao

I spent some time pursuing this approach in European newts back in the mid-1980s (using Southern blotting rather than sequencing). The methodology has been used more in plants than animals, perhaps because there were more attractive, accessible options in animals - especially mtDNA. The benefit of these genes used to be that they were conserved and numerous enough to allow the use of "universal" probes. PCR and easy sequencing of alternative nuclear markers mean that these earlier benefits are now probably disadvantages. Although there is concerted evolution, the ribosomal copies ("cistrons") will not all be identical - especially as they are usually located in more than one chromosomal location - so the data will be messy. I believe however that these genes could nonetheless be useful for analysing reticulate patterns, as populations will acquire new variants during secondary contact (a sort of "molecular passport"). In practice they would probably have to be analysed using PCR and length, rather than sequence, variation, as it would be impractical to sequence multiple copies from single individuals.

Here is a paper that lists PCR primers for most organisms.

Hillis, D. M. and M. T. Dixon (1991). "Ribosomal DNA: molecular evolution and phylogenetic inference." The Quarterly Review of Biology 66(4): 411-453.

My only suggestions are two recent papers by Louis Bernatchez's lab, who have used ITS-1 to assess phylogeography and historical demography in brown trout, Salmo trutta. The references are:

BERNATCHEZ, L. 2001. The evolutionary history of brown trout (Salmo trutta L.) inferred from combined phylogeographic, nested clade and mismatch analyses of mitochondrial DNA variation. Evolution. 55 : 351-379

PRESA, P., B.G. PARDO, P. MARTINEZ, L. BERNATCHEZ. 2002. Phylogeography of brown trout (Salmo trutta L.) using the ribosomal internal transcribed spacers (ITS). Molecular Biology and Evolution. 19 : 2161-2175.

Both papers are available as PDF's from Louis' website <<http://www.bio.ulaval.ca/contenu-fra/professeurs/prof-l-bernatchez.html>http://-www.bio.ulaval.ca/contenu-fra/professeurs/prof-l-bernatchez.html>.

One of the students in my lab, Michael Butler, is encountering similar difficulties in finding papers on using ITS for phylogenetic and phylogeographic studies. I've copied Michael on this message - it may be that each of you has some insights that would help the other.

This really won't be so much of a help to your request but here it goes.

Ive been working with bacterial ITS regions for the past year. In spite of the fact that it is not actually vertebrate ITS, the bibliographic research I made almost always conducted me to bacterial ITS or FUngal ITS. I dont really know if you'll ever find much about it in higher vertebrates or if there will be enough information to conduct phylogeographic analysis.

it depends on what you are interested in. In general I would recommened the book "Phylogeography" by Avise, there is a lot of what you can do intraspecifically.

Nevertheless, there was a littlebit information at you mail... Maybe you can send more... ???

just a brief statement about ITS evolution. Check out for example Joseph et al. 1999: Ribosomal internal transcribed spacer 2 (ITS2) exhibits a common core structure in vertebrates and yeast. Nucleic Acids Research 27: 4533-4540.

or

Suzuki et al. 1987: Ribosomal DNA (rDNA) spacer polymorphisms in mole rats. Mol Biol Evol 4: 602-610.

or

my contribution (which is related to "do" and "not-do" of secondary structure models) in Canadian Journal of Zoology, 79: 334-345, from the year 2001.

Im not working with the ITS region, but I know somebody who did a lot of coral phylogenetics with it. His name is Todd LaJeneusse. I think he is still employed at the University of Athens (US). I dont have his email adress at the moment, but maybe you can find it using the internet. He also did some publications on it.

Maybe this can help you a little bit. If you contact him tell him my regards. recieved an email about your wanting info on ITS. I worked with ITS1 in Rana here

in North America. I would be very cautious when using this. I found up to 5 paralogs in a single individual. You need to make sure that concerted evolution is effective in your taxa of interest. Sequence individuals several times. I believe that Rana actually has multiple loci for ITS and/or rDNA in general. You should try to test this hypothesis before pursuing this. If you have any

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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

Indel PC program

Hi everybody,

I am a Ph student and i'd like to know if someone could help me with the following problem.

Given a DNA alignment and a phylogenetic tree, I'd like to get a Pc program that could be able to localize indels in the tree by maximum parsimony.

This, obviously, can be done by hand but I have to analyze a lot of alignments and this represents a lot of time.

Thanks a lot for comments

LAURA GOMEZ VALERO INSTITUTO CAVANILLES Laura.Gomez@uv.es

Magnoliaceae AFLPs

Greatings!

Right now we are working in genetic variability in Dugandiodendron (Magnoliaceae), and we want to use AFLPs, but we would like to know if there is any information about what selective primer combinations have been used for this family in other studies applying this technique.

Thanks a lot. Pablo Saenz

pasaenz29@yahoo.com.ar

Mantel test

Hi there,

I have a question regarding how to test for Isolation by Distance with the Mantel test, given parwaise Fst values and parwaise Km distances between a set of populations.

My doubt is: Is there any reason for chosing better Fst/(1-Fst) instead of Fst?? are they comparable?? any methodological or statistical issues to consider?

any feedback is sincerely appreciated, Thank you very much!

Sandra Duran PhD student Facultat de Biologia. Dept. Biologia Animal, Invertebrats. Av. Diagonal, 645. 08028 Barcelona CATALUNYA

Phone: +0034 934021441 Fax: +0034 934035740 e-mail: sandra@porthos.bio.ub.es

Mantel test answers

Hi everyone, Thank you very much to all the people that replied my question. I've received lots of mails, half of them with interesting ideas and literature and half of them asking me to send them the feedback. So here are the most interesting answers I got.

THE QUESTION—-> Fst/(1-Fst) or Fst for mantel test, and why??

THE MAIN ANSWERS:

The answer to your question on the Evoldir network regarding isolation by distance is in Rousset (1997, Genetics; see also his 2001 review in Handbook of statistical genetics, ed by Balding et al.). Using Fst / (1 Fst) is based on a formal population genetics model, under which you actually expect a relationship with distance. The relationship is expected to hold under conditions larger than those modelled by Rousset (1997). See a recent paper by Leblois et al. in MBE.

Fst is distributed between 0 and 1, whereas Fst/(1-Fst) potentially varies between 0 and infinity. When

you are doing correlations, upper or lower bounds are a nuisance, and in this way you at least get rid of the former.

As for isolation by distance (ibd), my feeling is that the term is used in two ways, both loosely and strictly. In many recent papers, I see people loosely call ibd any correlation between genetic and geographic distance. In these cases, a Mantel test is Ok. Strictly speaking, though, (which means in the sense of Malècot-Morton and Kimura-Weiss), ibd is the product of genetic drift leading populations to diverge, and short-range gene flow leading them to converge genetically. Both in models where populations are continuously (Malècot-Morton) or discontinuously (Kimura-Weiss) distributed, that combination of drift and gene flow causes an asymptotic decline of genetic resemblance with distance. In other words, kinship between populations decreases up to a certain distance, and then it goes to zero.

In practice, the two different definitions do make a difference, because (1) under the former, but not under the latter any genetic gradient or cline (including those determined by long-range gene flow, range expansion and the like) are taken as evidence of ibd, and (2) over an area much greater than the dispersal distance of the species you are studying, drift and gene flow may generate local clines but not a general correlation between genetic and geographic distances.

I hope these comments did not increase the confusion. The relevant literature is wide, but among the oldies I would still recomment Cavalli-Sforza and Wijsman (1984) Annu. Rev. Ecol. Syst. 15:279-301, Kimura & Weiss (1964) Genetics 49:561-576 and Slatkin (1989) Genome 31:196-202.

I use Fst/(1-Fst) as recommended by Rousset's 1997 Genetics article. Whereas Fst goes to 1 as populations become more differentiated, Fst/(1-Fst) goes to infinity. So if you're regressing against geographic distance, which goes to infinity, it's appropriate to use Fst/(1-Fst). Also, something a lot of authors overlook is that you should specify whether you are considering your populations to be in 1-dimensional arrays or 2-d arrays. If they are essentially 1-dimensional (like along a river) you should regress against geographic distance, but if you consider your populations to be in 2-d arrays, you should use its log transform. Rousset covers this as well- that and Slatkin's 1993 (Evolution) and 1985 (Ann Rev Ecol Syst) articles have been the most helpful to me.

A variety of measures have been used on the "Y" and "X" axis of IBD plots. For examples, see:

Slatkin, M. 1993. Isolation by distance in equilibrium and non-equilibrium populations. Evolution 47: 264-79.

Rousset, F. 1997. Genetic differentiation and estimation of gene flow from F-statistics under isolation by distance. Genetics 145: 1219-28.

Hutchinson, D.W. and A.R. Templeton. 1999. Correlation of pairwise genetic and geographic distance measures: inferring the relative influences of gene flow and drift on the distribution of genetic variability. Evolution 53: 1898-914.

Even the geographic distance axis is log-transformed in some cases and not others.

I suggest that you examine scatterplots and try a variety of metrics, log-transformed or not. If you are interested in the IBD slope, then the most important consideration is that the plot meets the standard assumptions of regression (the relationship is linear, residuals are not skewed, etc.)

See http://www.bio.sdsu.edu/pub/andy/IBD.html for some software to help with this.

Thanks again folks!

Sandra Duran

PhD student Facultat de Biologia. Dept. Biologia Animal, Invertebrats. Av. Diagonal, 645. 08028 Barcelona CATALUNYA

Phone: +0034 934021441 Fax: +0034 934035740 e-mail: sandra@porthos.bio.ub.es

——Original Message——

Hi there,

— / —

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

Marker choice answers

Dear EvolDir,

The original question was: Can anyone actually justify spending time, effort and money on randomly generated

molecular markers (e.g. AFLPs and RAPDs/ISSRs) for ecological studies that assume (hope) markers are selectively neutral? Has anyone attempted to correlate any of these randomly generated markers with ecological variables?

I doubt whether we can justify the use of randomly generated fragments of DNA (their gel profiles) to study population processes, e.g. gene flow, which demand the use of selectively neutral markers. Surely time, effort and money would be best spent using a reliable (repeatable) standard technique (e.g. SSRs) that allows us to make informative comparisons between studies. But it would be interesting if researchers were to routinely scoop randomly generated bands from gels, sequence them and compare them with whats in the databases. This might indicate which ecological variables (if any) promote the patterns of variation in randomly generated molecular markers, assuming some of them are coding DNA.

Thanks to those who responded.

Here are the responses:

1. I think that a couple of papers by Leif Skot's group at IGER, published last year in moleclar ecology would be useful. What they tried to do was correlate AFLP markers with temperature tolerance in Lolium perenne. The papers were:

Hamilton NRS, Skot L, Chorlton KH, et al.

Molecular genecology of temperature response in Lolium perenne: 1. preliminary analysis to reduce false positives <http://tame.mimas.ac.uk/isicgi/-CIW.cgi?Pw6dTYJYy4MAAFNMTjE_E130D04E_Pw6dTYJYy4MAAFNMTjE-0 <http:/-/tame.mimas.ac.uk/isicgi/-CIW.cgi?Pw6dTYJYy4MAAFNMTjE_E130D04E_Pw6dTYJYy4MAAFNMTjE-0&Func≪stract&doc=1/1> &Func≪stract&doc=1/1>

MOL ECOL 11 (9): 1855-1863 SEP 2002

Skot L, Hamilton NRS, Mizen S, et al.

Molecular genecology of temperature response in Lolium perenne: 2. association of AFLP markers with ecogeography <http://tame.mimas.ac.uk/isicgi/-CIW.cgi?Pw6dTYJYy4MAAFNMTjE_E130D04E_Pw6dTYJYy4MAAFNMTjE-0 <http:/-/tame.mimas.ac.uk/isicgi/-CIW.cgi?Pw6dTYJYy4MAAFNMTjE_E130D04E_Pw6dTYJYy4MAAFNMTjE-0&Func≪stract&doc=1/2> &Func≪stract&doc=1/2>

MOL ECOL 11 (9): 1865-1876 SEP 2002

2. I am writing a paper about the history of random genetic drift in the Wrightian sense. If you place a neutral marker on a chromosome, then it will behave not as random drift over 10s or 100s of generations, but as a neutral marker tied with whatever factors happen to be near it. Thus your idea, of correlating these neutral markers with ecological variables, would explain a lot about what actually happens to neutral markers over this time. But over deep evolutionary time, as in the neutral or nearly neutral theories, the situation may change and random drift becomes possible.

3. I don't believe that multilocus PCR based marker are selectively neutral but as they are screened from all the genomes they are good indicators of evolution event that concern all the genome, as genetict drift for example. Pattern of differentiation by genetic drift inform you about ecological factors acting on gene flow and organism dispersion such as fragmentation, ecological barriers or local adaptation, etc...

4. Do you mean to ask:

If we do not assume (for very strong theoretical and empirical reasons) that most DNA is not being selected for (ignoring purifying selection): HAS anyone rejected the null hypothesis that is there is lots of selection and the alternative hypothesis is that the DNA is neutral: than the answer is probably not.

Has anyone attempted to correlate any of these randomly generated markers with ecological variables? Most definitely. The surprise, is when some markers have patterns that can not be explain by random drift

5. A couple of years ago we looked at both AFLP and ISSR markers (we rejected RAPD's because of the literature reporting inconsistencies, and the number of bands generated is small compared with AFLP and ISSR's).

The time and effort in setting up the AFLP system was high. In the end we never got the process to work consistently, different DNA extractions from the same leaf generated different banding patterns. So we gave up, the process has too many steps which could go wrong (or not work consistently) and we couldn't determine where the method failed. All in all we probably spent 6 months faffing with the AFLP method.

— / —

Mendelian Inheritance Program

Dear List,

I am looking for a PC program that will perform a chi-square analysis to test for mendelian inhertiance of multiple loci (diploid organism, microsatellite markers). I have a large data set and would like to avoid computing this by hand....

Any hints would be appreciated!

Iliana

Iliana Baums, Dipl. Biol. Ph.D. student Rosenstiel School of Marine and Atmospheric Science Marine Biology and Fisheries University of Miami 4600 Rickenbacker Causeway Miami, FL 33149

fax 305.361.4600 fon 305.361.4642

Iliana Baums <ibaums@rsmas.miami.edu>

Molecular root markers

G'day, I wish to use molecular techniques to distinguish neighbouring woody/fine roots if necessary using a marker like: trnL (UAA intron of chloroplast). My big question is what are the considerations I should make regarding identification of neighbouring roots by making use of trnL or should I use more than one molecular marker etc? Or is there a better marker out there? I am working on eucalypt species.

Cheers Gimara Duncan University of Western Australia

gimarahd@cyllene.uwa.edu.au

Ne Estimation

Does anyone know of a program to estimate Ne using haploid data (we have Y chromosome microsatellites)? We have been trying to use NeEstimator, but it assumes diploid markers. – Connie J. Mulligan Assistant professor Department of Anthropology 1112 Turlington Hall PO Box 117305 University of Florida Gainesville, FL 32611 Tele: (352) 392-2253, ext 248 Fax: (352) 392-6929 mulligan@anthro.ufl.edu

Otter faecal samples

Dear all

I'm working with faecal samples from Otters, and I'm having some problems for DNA isolation. Dose anyone have any suggestion for a preservation samples and extraction method? I'm currently using Det's Solution for preservation and QIAamp Stool Mini Kit (QIAGEN), but I'm not able to amplify neither mtDNA nor nuclear DNA.

Thanks for your help

Sara Mira (PhD student) CCMar Universidade do Algarve Campus Gambelas 8000-117 Faro Portugal

smira@ualg.pt

Sara Mira <smira@ualg.pt>

Otter faecal samples answers

Hi everyone, Thank you very much for all your comments and suggestions. Since some of you have asked to send them the answers I decided to post them here.

There is a Conservation Genetics, a Dallas & Marshall from 2000, sexing otter with scats. Read also the rich litterature of Taberlet, and revues from Reed (Cons genetics) and Miller and Waits in Genetics.

I do work with birds feces, but I must tell it's not really a classical type of lab set up, as you have to count with repeats (as I guess you know) and contamination from others tissues et from amplified fragments. If you haven't taken this into account, please read the guidelines published in reviews and in Taberlet. This is a bit crucial here. For instance, don't try to amplify fragments longer than 350 pb for sequencing of microsat: It just won't work.

I have some experience in extracting DNA from otter spraints. I collected spraints in the field, but only the

ones that were very fresh. I went out early in the morning and had the best success with spraints that were found under bridges, where they are not exposed to sun and rain. I kept them in plastic bags, as cool as possible and when I returned to the lab, I stored the spraints in ATL buffer, supplied with the Qiagen extraction kit. I was working in cold conditions, and then ATL buffer is not suitable to take into the field, since it precipitates at low temperatures. I stored 400 microliter of spraint material in an eppendorf tube with 400 microliter ATL buffer and then put everything in the freezer. For DNA extraction I used the Qiagen Stool kit as well as the Qiagen DNeasy tissue kit. Both gave similar results, but since, the tissue kit is less expensive per extraction, I used that one in my final analysis. Before DNA-isolation, I first vortexed the eppendorf tubes and then spinned them. I took the supernatant as one subsample and the rest as the other subsample and digested with proteinase K at 55 C overnight, and follow the rest of the extration protocol provided with the kit. Only 34% of my spraints yielded DNA, which seems to be quite good for field-collected spraints. Among the spraints I collected were also anal jellies, which can sometimes be found. Of these jellies, 58% yielded DNA, so these are very worth while collecting.

I guess freeezing is out of question? We had somebody in my old lab working on bonobos (pygmy chimpanzees). They put the faecal sample in 100% alcohol and used an extraction method specified in Gerfloff et al. (I can't remember journal and year, but it must have been araound 1998?). I extract parasite DNA from faecal samples and have a lot of problems with inhibitors as well. My current method is a standard CTAB extraction followed by a clean-up step using Qiagen PCR purification columns. Then I dilute the extract 1 in 10 and PCR work well with that. Diluting may not be an option for you (??). But You could also try to use some faecal material and do a chelex extraction, then spin down and then purify supernantant over columns.

I'm working with arctic fox DNA from faeces. We also use the Qiamp stool kit and it works great. We collect the samples in plastic jars containing silica pellets that dries the faeces when we are in the field. When we get back to the department we freeze the jars (with samples) in -80 degrees C (but -20 works too), which further freeze dries the faeces. This works also for wolverine faeces... My guess would be that your problem lies mainly with the preservation method rather than the extraction kit. Or possibly that you preservative interferes with the extraction...

I think that otters are inherently one of the most difficult species for faecal DNA nalysis. We analyzed a decay series of spraints left outside for 1, 2, 4, ... 128 hours before preservation in ethanol. Proportions of spraints in which microsatellites were detected had a max. of 0.6 falling to approx. 0.05 after 24 hours. As you can see from the Dallas et al. 2003 paper, overnight-fresh spraints yielded a proportion with composite genotypes of 0.2 using radioactive detection and manual sequencing gels. Ettore Randi's group gets about double this value for fresh spraints using fluorescence detection on a capillary sequencer.

Species discrimination is more successful than individual identification (Hansen & Jacobsen 1999). Hansen MM, Jacobsen L (1999) Identification of mustelid species: otter (Lutra lutra), American mink (Mustela vison) and polecat (Mustela putorius), by analysis of DNA from faecal samples. Journal of Zoology 247, 177-181.

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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

Plant hybridizations

ANNOUNCEMENT

The book, DANGEROUS LIAISONS? When Cultivated Plants Mate with Their Wild Relatives by Norman Ellstrand will be published in early November by Johns Hopkins University Press. A link to the publisher and the book is http://www.press.jhu.edu/press/books/titles/f03/-f03elda.htm. The book can also be ordered through Amazon at http://www.amazon.com/exec/obidos/tg/-detail/-/080187405X/qid=1054679117/sr=8-1/ref=-sr_8_1/002-2370212-7549646?v=glance&s=books&n=-507846.

The following is the publisher's description of the book:

With the advent of genetic engineering, "designer" crops might interbreed with natural populations. Could such romances lead to the evolution of "superweeds", as some have suggested? But haven't crops had sex

with wild plants in the past? Has such gene swapping occurred without consequences? And if consequences have indeed occurred, what lessons can be gleaned for engineered crops?

In Dangerous Liaisons? Norman Ellstrand examines these and other questions. He begins with basic information about the natural hybridization process. He then describes what we now know about hybridization between the world's most important crops – such as wheat, rice, maize, and soybeans – and their wild relatives. Such hybridization, Ellstrand explains, is not rare, and has occasionally had a substantial impact. In some cases, the result was problematic weeds. In others, crop genes have diluted natural diversity to the point that wild populations of certain rare species were absorbed into the gene pool of the more common crop, essentially bringing the wild species to the brink of extinction.

Ellstrand concludes with a look to the future. Will engineered crops pose a greater threat than traditional crops? If so, can gene flow and hybridization be managed to control the escape of engineered genes? This book will appeal to academics, policy makers, students, and all with an interest in environmental issues.

At 05:44 AM 9/3/03 -0400, you wrote: >To Plant Breeding News (PBN-L): > >The deadline for contributions to the next newsletter (Edition 141) is 10 >September 2003. This edition will be distributed on 15 September. > >Clair H Hershey, Editor

Norman C. Ellstrand Professor of Genetics and Director, Biotechnology Impact Center Department of Botany & Plant Sciences University of California phon 909-787-4194 Riverside, CA 92521-0124 phax 909-787-4437

"We must open these doors carefully, never letting our science get ahead of our ethics. Science and technology are not inherently moral; the responsibility for putting them to a moral use belongs to us."

– Donna Shalala, former Secretary of HHS, Science 295:585

also, see http://www.amazon.com/exec/obidos/tg/-detail/-/080187405X/qid=1054679117/sr=8-1/ref=-sr_8_1/002-2370212-7549646?v=glance&s=books&n=-507846 or http://www.press.jhu.edu/press/books/-titles/f03/f03elda.htm

Norman Ellstrand <Ellstrand@ucrac1.ucr.edu>

Saxifraga DNA

Hi everybody

I am currently doing a population genetic study on a succulent Saxifraga species. I've tried several DNA extraction protocols (DNeasy kit from Qiagen, CTAB and SDS). I was only successful with the SDS method, but the bands were very weak and no further PCR amplification could be obtained. The plants I'm working with contain apparently a lot of polysaccharides!!! Since I would like to perform AFLPs, I though need high quality DNA. Can anybody help me to obtain better results?

Karina Arroyo Universidad de Costa Rica San Jose, Costa Rica couropita@yahoo.es

Software DAMBE update

Dear All,

I have uploaded a new version of DAMBE to

http://aix1.uottawa.ca/ ~ xxia/software/software.htm And

http://web.hku.hk/ ~ xxia/software/software.htm The update includes some new functions and streamlining of old functions which should be more stable now.

We have initiated effort to port DAMBE to other platforms. We hope that it will be a bioinformatics desktop integrating genomics, transcriptomics and proteomics.

We are looking for collaborators to join our effort in software development in bioinformatics and molecular evolution.

Best. Xuhua

Dr. Xuhua Xia Associate Professor Biology Department University of Ottawa 150 Louis Pasteur, P.O. Box 450, Station A Ottawa, Ontario Canada K1N 6N5 Tel: (613) 562-5800 ext 6886 Fax: (613) 562-5486 Email: xxia@uottawa.ca URL: http://aix1.uottawa.ca/ ~ xxia

Software Mesquite

Mesquite 1.0 has been released formally at http://-mesquiteproject.org Mesquite is open-source software for evolutionary analysis. It has modules for phylogenetic interpretations of character evolution (likelihood, parsimony, comparative methods), simulations (sequence evolution, coalescence, speciation), multivariate analysis (PCA, CVA), and other analyses (e.g., parametric bootstrap, compositional bias, tree comparisons, randomizations, cluster analysis). Molecular, morphological and continuous-valued data can be edited and analyzed. Its interface is graphical and interactive, with charts and phylogenetic visualizations. Mesquite operates on Windows, Linux/Unix, and the Mac OS (9 and X). An outline of features (with screenshots) is given at http://mesquiteproject.org/-mesquite/features.html We welcome your feedback about how Mesquite can be improved for use in both research and teaching. If you might be interested in building your own modules for Mesquite, or contributing to the coding of the core Mesquite classes, please contact us.

–

Wayne Maddison David R. Maddison Departments of Zoology and Botany Department of Entomology University of British Columbia University of Arizona Vancouver, BC V6T 1Z4 Tucson, AZ 85721 email: wmaddisn@interchange.ubc.ca email: beetle@ag.arizona.edu

Mesquite: http://mesquiteproject.org MacClade: http://macclade.org Tree of Life: http://tolweb.org

Software NeEstimator 1 1

New software (NeEstimator) is available for free download from http://www.dpi.qld.gov.au/fishweb/-11629.html

NeEstimator software estimates effective population sizes (Ne) from allele frequency data. The user can estimate Ne using any of the three internal methods or three third party programs. Genotypes from a sample of the population are used as input. The user provides this data in GENEPOP, ARLEQUIN or simple column (eg. saved as a tab delimited text file from Microsoft Excel) format.

The three internal methods are as follows.

* A point estimation method using linkage/gametic disequilibrium, (Hill, 1981). * A point estimation method using heterozygote excess (Pudovkin, Zaykin and Hedgecock, 1996). * A temporal method using moments based F-statistics (Krimbas and Tsakas, 1971; Nei and Tajima, 1981; Pollock, 1983 or Waples, 1989). The elapsed number of generations between temporal samples is required.

The three third party programs that NeEstimator is able to utilise are as follows.

* A temporal method using a Bayesian based approach called TM3 (http://www.rubic.rdg.ac.uk/ ˜ mab/-software.html). * A temporal method using a maximum likelihood based approach called MCLEEPS (http://www.stat.washington.edu/thompson/Genepi/-Mcleeps.shtml). * A temporal method using a pseudo likelihood approach called MLNE (http://-www.zoo.cam.ac.uk/ioz/people/wang.htm).

Comments and feedback are welcome.

Dr Jenny Ovenden Senior Fisheries Geneticist, Fisheries and aquaculture Agency for Food and Fibre Sciences Department of Primary Industries Queensland, Australia Phone 61 7 3817 9585 Facsimile 61 7 3817 9555 Email jennifer.ovenden@dpi.qld.gov.au Website http://www.dpi.qld.gov.au/fishweb/11629.html Call Centre 13 25 23

"Ovenden, Jennifer R" <Jennifer.Ovenden@dpi.qld.gov.au>

Software PHASE 2 0

A new version of PHASE (2.0) - a software package for estimating haplotypes from population genotype data - is now available. The software is free for academic use, via http://www.stat.washington.edu/-stephens/software.html . The new version features several improvements on the previous version of PHASE, including:

+ the introduction of a new computational approach, resulting in much faster haplotype resolution.

+ the introduction of a new model that allows for re-

combination and decay of Linkage Disequilibrium (LD) with distance, which results in more accurate haplotype estimates. This model also allows the user to estimate recombination rates, and identify recombination hotspots from population genotype data.

+ the facility to perform a test for haplotype frequency differences between cases and controls.

+ more extensive output summarising the results

Please read the new instructions carefully before use (a quick tour for existing users is included to minimize inconvenience, but there are a few changes that existing users will need to note).

I apologise in advance that you will be asked to reregister before downloading the new version: this is so that we can more accurately monitor usage and demand.

I hope you find this new version helpful,

Matthew Stephens (stephens@stat.washington.edu)

Department of Statistics University of Washington

Matthew Stephens <stephens@stat.washington.edu>

Software Populus

Populus 5.2.1 has been downloaded by 9,700 users in the six months since its February release. Our Minnesota website, http://ecology.umn.edu/populus now offers Populus 5.3, a major update containing new modules on stage-structured population growth, macroparasitic infection dynamics, the evolution of disease virulence, the population biology of conjugationally transmitted plasmids, the evolution of temperance in phage, and insect resistance management. In addition to these content additions, we now include life history diagrams that serve as both input and output screens for the age- and stage-projection modules. This means that a student can initiate demographic projections by specifying an lxmx schedule, by drawing a graph of age or stage nodes on-screen and setting transition parameters, or by providing the elements of a projection matrix and population-state vector. Finally, we have collected the Populus help screens into a single 110-page pdf for easy access and improved appearance via Adobe Acrobat Reader. We hope that you enjoy the new program.

Donald N. Alstad, Professor Ecology, Evolution & Behavior University of Minnesota St. Paul, MN 55108 USA dna@umn.edu 612 624 6748 (office, voicemail)

Don Alstad <dna@umn.edu>

Software QTLExpress

QTL Express: http://qtl.cap.ed.ac.uk/ [Funded by the UK Biotechnology and Biological Sciences Research Council]

We are pleased to announce an updated version of our user-friendly web-based QTL mapping package, and the addition of new modules. We now cater for the following population structures:

(1) F2 populations from inbred or outbred lines

(2) F2 or advanced intercross population from inbred lines

(3) [NEW] Combined backcross and F2 populations from inbred or outbred lines. This new module is designed for a mixture of (reciprocal) backcross and/or F2 population from inbred or outbred lines. Depending on the crossing design, additive, dominance and parent-of-origin QTL effects are estimated. Single F2 or backcross populations can also be analysed with this application.

(4) Large fullsib population

(5) Halfsib families

(6) [NEW] Nuclear families and sibpairs. This new module is designed for samples of small nuclear families from an outbred population. Identity-by-descent probabilities between sibs are estimated using Merlin (http://www.sph.umich.edu/csg/abecasis/Merlin/-). Marker genotypes on the parents are not required.

For all of the modules in QTL Express, permutation testing to obtain signifiance threshold, bootstrapping to obtain confidence intervals, and the option of 1 and 2 QTL analyes are implemented. Genome-wide permutation testing has now been implemented and the possibility to fit cofactors in the model has been extended to all population structures. The documentation has been updated.

We would be grateful for comments, suggestions and bug reporting (send all to: george.seaton@ed.ac.uk).

Other modules for applications in animal and human populations are in preparation. We would appreciate suggestions on specific modules to be added.

George Seaton Chris Haley Sara Knott Xijiang Yu Peter Visscher

Peter M. Visscher Institute of Cell, Animal and Population Biology School of Biological Sciences University of Edinburgh West Mains Road Edinburgh EH9 3JT UK tel. +44 131 650 7702 fax. +44 131 650 6564 peter.visscher@ed.ac.uk

Visualize Gels Software

Dear all,

I am looking for a software program for visualizing 1D-electrophoretic-gel images and with which quantitatively analysis can be performed. I am only aware of the "DNA Graphical User Interface (DNA/GUI)". Are there any other web-free programs?

Thanks a million for your assitance, Ella

Ella Vázquez Domínguez

Instituto de Ecología, UNAM Ap. Postal 70-275 Laboratorio de Macroecología Ciudad Universitaria Tel (52) 55- 5622 9002 México DF 04510 MÉXICO Fax (52) 55-5616 1976

evazquez@ecologia.unam.mx

http://www.ecologia.unam.mx

PostDocs

Antibes INRA InsectPopGenet 2

POST DOCTORAL POSITION INSECT POPULATION GENETICS 2d Call

A two-years postdoctoral position is available in the area of insect population genetics of invasive species in the National Institute of Agricultural Research (INRA) of Antibes, France.

The postdoctoral associate will participate in research that combines experimental and molecular data analysis to study the invasion and geographic expansion of the Western Corn Rootworm (WCR) Diabrotica virgifera virgifera (Coleoptera: Chrysomelidae) in the USA and Europe. The main objectives of the program will be to retrace the routes of introduction of WCR in western America and in Europe and to describe the general dynamics of spread of recently founded populations. The applicant must have a good expertise in theoretical and/or empirical population genetics analysis and more generally in evolutionary biology. Some experience in the use of microsatellite markers and data analysis of such markers (including simulations) will be appreciated.

This position is funded by the INRA institute which is the major French state funded institute of agricultural research. Funding will start 1 January 2004 until 31

December 2005. The successful applicant will receive a one-year appointment with good chances for a one-year renewal.

Job location: INRA-UNSA Research Center of Antibes, Sophia-Antipolis (Provence-Côte d'Azur, France). The successful applicant will work in close collaboration with a group of four scientists: - Thomas Guillemaud: population genetics of neutral markers and of markers under selection, UMR ROSE INRA-University of Nice. - Laurent Lapchin: coevolution and population dynamics, UMR ROSE INRA-University of Nice. - Arnaud Estoup: population genetics of neutral markers. CBGP, INRA Montpellier - Denis Bourguet: population genetics of neutral markers and of markers under selection. CBGP, INRA Montpellier

Application : a Ph.D. is required; to apply, submit electronically to Thomas Guillemaud (guillem@antibes.inra.fr): (1) a CV, (2) copies of recent publications (maximum of three), (3) a statement of research interests and (4) the names and addresses of three scientists who may be contacted. Applications will be considered until fulfilled. French fellows cannot apply.

Thomas Guillemaud

Equipe Biologie des Population en Interaction UMR 1112 "ROSE", INRA-UNSA 123, boulevard Francis Meilland - BP 2078 - F-06606 ANTIBES CEDEX FRANCE E-mail : guillem@antibes.inra.fr

Jena EvolGenomics

Postdoctoral Position in Evolutionary Genomics

A postdoctoral position is available immediately in the Department of Genetics and Evolution at the Max-Planck-Institute of Chemical Ecology in Jena, Germany.

This position is associated with a collaborative project to examine the role of positive selection in the evolution of recently duplicated and rapidly diverging genes in the model plant Arabidopsis thaliana and close relatives. We are currently focussing on genes potentially involved in reproductive isolation, reponse to biotic stress and genes of unknown function (orphan genes) that show signatures of selection.

The work will involve the identification of candidate genes by computational mining of genome databases; the isolation, sequencing and annotation BAC clones; the expression analysis of genes and tests of evolutionary hypotheses using phylogenetic reconstruction and tests of positive selection. A background is molecular biology and molecular evolution is expected. An interest in quantitative aspects of sequence analysis and proficiency in a programming language (our favorite is Python) is highly desired.

The Department of Genetics and Evolution of the Max-Planck-Institute of Chemical Ecology (http://-www.ice.mpg.de/tmo/home/home_en.htm) provides an excellent work environment with a modern genomics and bioinformatics infrastructure and a critical mass of scientists working on the interface of evolutionary and functional genomics. The institute is international in character with English as the daily language.

The contact address for applications and further information is:

Dr. Karl Schmid

Department of Genetics and Evolution Max-Planck-Institute of Chemical Ecology Hans-Knöll-Str. 8 07745 Jena, Germany Tel: +49 3641 571465 Email: schmid@ice.mpg.de Internet: vanilla.ice.mpg.de/~schmid

Karl Schmid <schmid@ice.mpg.de>

Marseille Phylogeography 2

POSITION AVAILABLE IN PHYLOGEOGRAPHY AND GENETIC STRUCTURE IN A CONTEXT OF PLANT SPECIES INVASION

A post-doc position is available in the research institute IMEP (Institut Mediterraneen d Ecologie et de PaleoEcologie) team EPBC (Ecologie du Paysage et Biologie de la Conservation) from November 2003 to April 2004 (six months) in the city of Marseille (Provence France). The candidate must be a non-french person due to our financial sources (approximatively 1750 eue per month) from EGIDE dedicated to non-french salary.

* Research themes The candidate will participate in a research project on invasive plant species in Mediterranean Basin based on two scientific programs: an european program, EPIDEMIE (Exotic Plant Invasions: Deleterious Effects on Mediterranean Ecosystems; see http://www.ceh.ac.uk/epidemie/) and one from the French Ministry of Ecology (INVABIO). The main ob-

jectives of these research programs consist in evaluating the dynamics of invasive plant species (particularly, Oxalis pes caprae, Carpobrotus spp., and Ailanthus altissima) and their consequences for the biodiversity and dynamics of native Mediterranean ecosystems. The precise research work of the candidate will investigate (i) at a regional scale, the phylogeography of Oxalis pes caprae across the Mediterranean Basin and (ii) at a local scale, the comparative genetic structure of insular and continental populations of Carpobrotus spp.

* Ability Strong molecular skills in plant genetic diversity screening (plant DNA extraction, PCR-based markers such as AFLP, Acrylamid-gel electrophoresis, screening of CpDNA diversity by genome wlaking) and also a relevant experience in plant phylogeography and population genetic analysis are essential. As the candidate will participate in collaboration with population biologists and community ecologists a good knowledge of evolutionary ecology and interest for plant systematic will be appreciated. The candidate could participate in the supervising of students from our university and coordinating the functioning of the molecular laboratory.

* Applications Candidates have to send a CV, a statement of research interests and past research projects, and two names, addresses and letters of reference to laurence.affre@univ.u-3mrs.fr

IMEP institute is constituted of 60 scientist members working in interdepartmental research on Ecology and Evolutionary Biology. For more information on IMEP Institute, see the web site http://www.imep-cnrs.com/-pages/imep1.htm

Yours sincerely, Laurence AFFRE

AFFRE Laurence Faculté de St Jérôme - IMEP - case 461 Av Escadrille N. Niemen 13391 Marseille cédex 20 tel St Jé : 04.91.28.83.39 tel Arbois : 04.42.90.84.52 mail : laurence.affre@univ.u-3mrs.fr http://www.imep-cnrs.com/

Laurence Affre <ms461a15@univ.u-3mrs.fr>

MichiganStateU LandscapeEvol

Visiting Research Associate Emerging Pathogens in Space and Time

A Visiting Research Associate position is available to work with faculty associated with the Center for Emerging Infectious Diseases at Michigan State University. Research will focus on landscape-level ecological and evolutionary analyses of disease endemicity, epidemiology, prevalence, and risk analysis of pathogen spread in space and time. Emphasis will be placed in quantitative geographic analysis of pathogen endemicity, spatio-temporal modeling incorporating evolutionary factors related to transmission dynamics and risk of geographic spread, and statistical phylogeography of emergent pathogens. Requirements include a PhD and strong quantitative skills in either epidemiology, landscape ecology, systematics, spatial modeling, population genetics, or allied disciplines. Send resume, letter of research interests and contact information for 3 references to:

Kim Scribner, PhD Department of Fisheries and Wildlife Michigan State University 13 Natural Resources Building East Lansing, MI 48824-1222 Tel: (517)-353-3288 e-mail: scribne3@msu.edu

Kim Scribner <scribne3@msu.edu>

Montpellier InsectSpecialization

POST DOCTORAL POSITION Evolution of specialization in herbivorous insects

Prof. Isabelle Olivieri's group at the University of Montpellier, France (Institut des Sciences de l'Evolution) is seeking a postdoc to be employed for a one-year fellowship to start on 1st December 2003.

The postdoctoral associate will participate in research that combines theoretical, experimental and molecular work to study the evolution of host choice and speciation in a mediterranean herbivorous insect (a flowerhead weevil) in relation to diversification of its hostplant (thistles). Modelling expertise, experimental and natural fields, greenhouses, cars for field visits and molecular markers are all available locally.

This position is funded by the French Ministry of Research. Funding will start 1 December 2003 and end 30 November 2004. Net salary is 1830 euros/month (not outstanding but reasonnable ; renting an appartment downtown Montpellier costs about 600 euros).

Candidates who are interested in the position, and who meet the eligibility requirements (non-French citizenship, PhD at the time of application), are encouraged to send a CV, statement of research interests and names of at least two referees to Isabelle Olivieri (olivieri@isem.univ-montp2.fr) as soon as pos-

sible. Dealine for application is October 5, 2003, but the earlier, the better !

Please send a copy of all correspondence to Viviane Delon (delon@isem.univ-montp2.fr).

For further information about the "Institut des Sciences de l'Evolution", look at the website http://-www.isem.univ-montp2.fr/index.php (in french, so you may check how good you are !) .

Isabelle Olivieri Université Montpellier 2, cc 065 Institut des Sciences de l'Evolution Place Eugène Bataillon 34095 Montpellier cedex 05 France Fax : 33 (0) 4 67 14 36 22 Tel : 33 (0) 4 67 14 37 50 (/ 42 59) LAB http://www.isem.univ-montp2.fr/GE/-Metapopulations/MetaAccueil.php

Ecole Doctorale : http://www.univ-montp2.fr/˜edbi/

Isabelle Olivieri <olivieri@isem.univ-montp2.fr>

RiceU Dictyostelium

Postdoctoral positions are available immediately for work on the social amoeba Dictyostelium discoideum, a unique and exciting model organism for social evolution. D. discoideum has cooperation, conflict, and complete reproductive altruism in its social stage. It also has a short generation time, a sequenced genome, techniques for knocking out and modifying genes, and it can be easily studied in the laboratory and the field. The project, a collaboration with Dictyostelium genomics researchers at Baylor College of Medicine, involves finding genes underlying sociality, examining the evolutionary history of these genes, and testing ancestral forms in vivo. It also involves testing whether social conflict leads to rapid evolution and arms races, determining how cheating is controlled, and relating laboratory findings to social evolution in the wild. The positions are funded by a large 5 year NSF grant from the Frontiers in Biological Research (FIBR) program. We are a friendly and interactive team of highly motivated investigators. We are seeking energetic postdocs with a strong background in evolutionary biology, social behavior, microbial evolution, or molecular biology with an interest in working at the interface of these disciplines. Please send an email to David Queller (queller@rice.edu) or Joan Strassmann (strassm@rice.edu) with a CV, statement of research interests, and the names, phone numbers and email addresses of three references. Women and minorities are particularly encouraged to apply. David C. Queller, Joan E. Strassmann, Department of Ecology and Evolutionary Biology, MS 170, Rice University, 6100 Main St. Houston TX 77005-1892.

– Joan E. Strassmann, Professor Dept. of Ecology and Evolutionary Biology, MS 170 Rice University, 6100 Main St., Houston TX 77005-1892 USA

phone: (713) 348-4922 fax: (713) 348-5232 e-mail STRASSM@RICE.EDU http://www.ruf.rice.edu/-˜evolve/ http://www.ruf.rice.edu/˜evolve/

StonyBrookU Genomics

Postdoctoral Position in Genomics/Molecular Phylogenetics at Stony Brook University

An NSF-funded postdoctoral position is available in the Wiens lab at Stony Brook University to help reconstruct squamate phylogeny using multiple nuclear protein-coding loci and new genomic databases. This position is funded for up to three years (starting salary $30K), and will be available starting in January of 2004 . The project is an international, multi-institutional venture that will involve a phylogenetic analysis of 142 squamate taxa using ˜50 nuclear protein-coding loci, analysis of morphological data from the same taxa and ˜60 additional fossil taxa , and modeling studies addressing the combination of molecular, morphological, and paleontological data.

The postdoctoral position will involve computational screening of vertebrate genomes for potential loci, development and testing of primers and genes, and large-scale sequencing of some of these markers. The postdoctoral researcher may also participate in simulation studies of phylogeny reconstruction using diverse data sets. Experience in molecular phylogenetics is expected; experience in developing nuclear markers, genomics, and/or computational biology are highly desirable. Mastery of at least one programming language and interest in herpetology are preferred but not required.

The Department of Ecology and Evolution at Stony Brook is a stimulating, interactive environment with several labs interested in diverse aspects of phylogenetics and molecular evolution. Other research in the Wiens lab includes studies of systematic theory and applications of phylogenetics to a variety of topics in evolution and ecology (e.g., speciation, species richness, morphological evolution, ecological diversification) us-

ing reptiles and amphibians as model systems.

In addition to the Wiens lab, the postdoctoral associate will work closely with the labs of Dr. Tod Reeder and Dr. Scott Kelley (both San Diego State Univ.) on the comparative genomic aspects of the project. The postdoc will also interact with the labs of Dr. Jack Sites (Brigham Young Univ.) and Dr. Michael Lee (Univ. Adelaide), who are also involved in the collection of DNA sequence data for this project.

Review of applications will begin 22 October 2003 and continue until a suitable candidate is found. Applicants should send a brief letter describing their prior research experience and current interests and goals and a curriculum vitae, and should arrange to have two letters of reference sent to:

John J. Wiens Department of Ecology and Evolution Stony Brook University Stony Brook, NY 11794-5245 E-mail: wiensj@life.bio.sunysb.edu phone: (631) 632-1101 FAX: (631) 632-7626 Web: http://-life.bio.sunysb.edu/ee/ Stony Brook University is an equal opportunity/affirmative action employer.

John Wiens <wiensj@life.bio.sunysb.edu>

SyracuseU MicrobialGenomics

POSTDOCTORAL POSITION (Syracuse University)

MICROBIAL ECOLOGICAL GENETICS AND FUNCTIONAL GENOMICS

A postdoctoral position is available immediately to investigate molecular mechanisms responsible for microbial adaptation to membrane disturbing chemical natural products present in host plants and the nature of mycological speciation mechanisms. Studies will employ functional genomic methods both in wild populations of the cactophilic yeast species of the clade Pichia amethionina and the model baker's yeast, S. cerevisiae. Funds are available for up to three years of support. Interested applicants should directly contact either

W.T. Starmer wstarmer@syr.edu or S.E. Erdman seerdman@syr.edu, Dept. of Biology, Syracuse University.

SUMMARY

The major focus of the research is to understand the molecular mechanisms responsible for the formation of new species of microorganisms. The research will target the ecological-genetics involved in separating two closely related sympatric yeasts in the genus Pichia. The two yeasts in the Pichia amethionina complex live in two different columnar cactus types. These yeasts are cactus specific. They are closely associated with other cactus yeasts and rely on cactus-specific drosophilids as vectors. The cacti they live in have major differences in their host chemistry. Abundant triterpene glycosides in one cactus type (subtribe: Stenocereinae) deter the growth of one species while allowing growth of the other. Identifying and isolating the gene/s responsible for this difference is the specific goal of the research. Earlier work indicated at least one gene in P. amethionina is responsible for the host-specific adaptation to the triterpene glycosides. A genome-wide knockout library recently created for S. cerevisiae has been used to screen and identify candidate genes that could be involved in the natural system.

There are four phases (goals) to the research plan. The first is to catalog all of the genes that can provide resistance to triterpene glycosides in S. cerevisae. The second is to determine which of these genes also confer resistance to sensitive strains of P. amethionina. The third is to determine which of the candidate loci that do confer resistance are realized to provide resistance in natural populations of P. amethionina. The fourth is to discover the ecological constraints limiting the number of actual solutions to triterpene glycoside toxicity and thus help explain the realized solution(s). This research will provide interdisciplinary training for a postdoctoral student in all aspects of the project from field collection and identification of wild yeasts to molecular genetic analyses.

Some results of this project to date have been:

– Identification of natural product chemical sensitivity growth rate phenotypes for 723 known and 268 previously unknown/unstudied genes of the genome of S. cerevisiae;

– Characterization of linkage rates of phenotype to gene replacement/knock-out in the large scale screen estimate an 80% linkage rate of the TTG phenotype to gene replacement/knock-out in each strain in the large scale screen;

– Preliminary analysis of the genetic basis of differences in the response of wild type S. cerevisiae strain backgrounds (BY4743 and W303) to the agria TTG fraction;

– Identificatjon of additional chemical sensitive phenotypes for approx. 60 of an estimated 200 TTG resistant and TTG super sensitive deletion strains screened. These sensitivities are caused by agents with similar

chemistry or biological targets (digitonin, organpipe TTG fraction, saponin, glycerrhizin);

– Identificatjon of temperature dependent differential TTG phenotypes for nearly half of the estimated 200 TTG resistant and TTG super sensitive deletion strains screened.

– Construction and preliminary characterization of strains deleted of homologous gene pairs for three sets of novel yeast open reading frames identified by this screen;

– Establishment of a web-based query tool to allow immediate, pre-publication access by the yeast and scientific community to the large-scale functional genomics data generated by this project.

http::/syllabus.syr.edu/bio/seerdman/TTG

William T. Starmer email: wstarmer@syr.edu Biology Department http://web.syr.edu/ ˜ wstarmer Syracuse University phone: 315-443-2154 Syracuse, New York 13244 fax: 315-443-2156

UArizona InsectEvol

Research Associate Center for Insect Science University of Arizona

Postdoctoral Excellence in Research and Teaching (PERT) offers up to three years of support to outstanding candidates seeking advanced research training in insect science and preparation for the additional demands of an academic career. PERT trainees may select from among over thirty-five faculty research mentors representing a broad range of insect science disciplines: genetics, biochemistry, neurobiology, ecology, evolutionary biology, molecular/cellular biology, entomology, physiology and behavior. Funded through the NIH, the starting salary will be based on the NIH NRSA scale for years of postdoctoral experience, with an annual allowance of $5,000 for research supplies and $1,000 for travel. Each trainee will have exclusive use of a laptop computer. Applicants must have a Ph.D. in a related field and must be U.S. citizens or permanent residents. Applicants should have no more than four previous years of postdoctoral experience. Additional information about the Center for Insect Science and the PERT program is available at http://-cis.arl.arizona.edu/PERT . To apply, please submit a letter of application that includes a statement explaining how the PERT program will assist the applicant in his/her career goals, a CV, three letters of reference, a two to three page research proposal developed with the intended CIS research mentor describing the project to be undertaken during the training period, and a letter of support from the intended CIS research mentor to: PERT, Center for Insect Science, P.O. Box 210106, University of Arizona, Tucson, AZ 85721-0106. Review of applications will begin October 29, 2003 for appointments beginning August 1, 2004 and will continue until positions are filled. The University of Arizona is an EEO/AA Employer -M/W/D/V.

Please contact me if you need further information. I am the contact person for this position.

Thank you! Teresa

Teresa Kudrna Administrative Assistant Center for Insect Science University of Arizona 1007 E. Lowell Street P.O. Box 210106 Tucson, AZ 85721-0106 (520) 621-4923 FAX: (520) 621-2590

Teresa Kudrna <tkudrna@email.arizona.edu>

UCDavis Phylogeography

Postdocs at UC Davis. I seek one or two postdocs to work on an existing, ongoing NSF and CalFed project on comparative phylogeography of amphibians and reptiles in the central/eastern US (NSF) and California (CalFed). For both projects, I seek an individual with strong molecular skills, an interest in phylogenetics, population genetics, and/or phylogeography, and an interest in amphibians and reptiles. I am particular interested in individuals who are interested in helping to develop new tools (including developing multilocus SNP libraries) and new analytical approaches to solving problems in phylogeographic analysis. UC Davis has great depth in most aspects of evolution and ecology, and there are opportunities to collaborate with individuals within and outside of our laboratory on related projects in micro and macroevolution. Both positions are available immediately. For more information, contact Brad Shaffer (hbshaffer@ucdavis.edu). – H. Bradley Shaffer Section of Evolution and Ecology University of California One Shields Ave. Davis, CA 95616

phone 530-752-2939 fax 530-752-1449 fax 530-752-1449

UCIrvine EvolGenomics

The University of California Irvine has several NIH training-grant postdoctoral positions available. These positions are to be filled in multiple disciplines across the UCI campus, including evolutionary biology. The following evolutionary biologists are members of the training grant, and are actively seeking postdoctoral candidates through this program:

Al Bennett Robin Bush Walter Fitch Brandon Gaut Tony Long Douglas Wallace

Information about these individuals and their research programs can be found at http://ecoevo.bio.uci.edu/-. If you are interested in working with one (or more) of these faculty members, please contact them directly. If you have any questions about the positions, please contact Brandon Gaut (bgaut@uci.edu)

These positions have been advertised widely; the formal advertisement is included below.

UNIVERSITY OF CALIFORNIA, IRVINE INSTITUTE FOR GENOMICS AND BIOINFORMATICS

Postdoctoral Research Fellowships for Interdisciplinary Training in Bioinformatics/Computational Molecular Biology

The NIH-funded UCI Biomedical Informatics Training (BIT) Program contains training faculty from the School of Information and Computer Science, the School of Biological Sciences/College of Medicine, and the School of Physical Sciences. The BIT Program prepares its trainees for positions in academia and industry. Under the mentorship of both a biologist and a computer scientist, this program provides in-depth training to either computational or life sciences fellows. It trains them to working competence in the cross-discipline with an emphasis on machine learning/data mining/bioinformatics approaches to problems in molecular structure prediction and determination, computational chemistry, comparative and functional genomics, and dynamic modeling of biological systems – areas of strength at UCI. A description of the program and a list of training faculty can be accessed at www.igb.uci.edu. Applicants must possess a Ph.D. or equivalent graduate degree. This position is funded by a NIH grant; eligible candidates must be U.S. citizens or non-citizen nationals or must be lawfully admitted for permanent residence. Yearly stipends range from $34,200 to $50,808 depending upon previous experience. Evaluations will begin August 24, 2003 and will continue until the positions are filled. To apply, send curriculum vitae and request three letters of recommendation be sent to:

Janet Ko Institute for Genomics and Bioinformatics 424A Computer Science Bldg., University of California, Irvine Irvine, CA 92697-3425

Brandon Gaut <bgaut@uci.edu>

UChicago StatGenetics

POSTDOC IN STATISTICAL GENETICS, UNIV OF CHICAGO

A postdoctoral position in statistical genetics or population genetics is available in Jonathan Pritchard's group at the University of Chicago.

The successful candidate will work on a project in statistical or population genetics. Our group is particularly interested in developing computationally intensive methods for analyzing genetic data. Current areas of emphasis in the group include (1) Population genetic-based statistical methods for mapping complex disease genes; (2) Inference of population structure and evolutionary history from genetic data; (3) Data analysis and modeling of linkage disequilibrium in the human genome. However, there is considerable flexibility in the actual choice of research topic, and the ability to work and think independently will be a plus.

Both the Department of Human Genetics, and the University as a whole are extremely strong in the research areas related to this position. There are possibilities for close collaboration with a number of strong empirical groups within the department including groups studying human variation and complex disease mapping.

Informal inquiries may be addressed to Jonathan Pritchard <pritch@uchicago.edu>. Suitable applicants should have either a background in population genetics with at least some experience in computational methods, or should come from a quantitative field such as statistics, and have a strong interest in biology. Good computer programming skills are essential. Applications including a CV, statement of research interests, copies of relevant publications and 2-3 letters of recommendation should be emailed or mailed to J. Pritchard

(at the address given below). Review of applications will begin immediately. Starting dates are flexible.

Further information about our group may be found at our web site, http://pritch.bsd.uchicago.edu/

Jonathan Pritchard Dept of Human Genetics University of Chicago 920 E 58th St, CLSC 507 Chicago IL 60637

UDelaware EvolHostUse

Dear Evoldir Colleagues:

Please pass on this message to any students and/or colleagues who might be interested in this position.

United States Department of Agriculture, Agricultural Research Service, Beneficial Insect Introductions Research Laboratory seeks a Postdoctoral Research Associate to study evolution of host use in parasitoids. Ph.D., knowledge of evolutionary ecology, quantitative genetics, and QTL mapping required. Annual salary is $48,748 plus benefits; position is for 2 years. The position is available 1 October 2003. Please send curriculum vitae and names, addresses (including e-mail), and phone numbers of three references to Dr. Keith R. Hopper, USDA-ARS, 501 South Chapel St., University of Delaware, Newark, Delaware 19713; email khopper@udel.edu, telephone 302-731-7330 ext 238, fax 302-737-6780. ARS is an equal opportunity employer.

khopper@udel.edu

UNottingham SnailEvol

POSTDOCTORAL RESEARCH FELLOW

INSTITUTE OF GENETICS, UNIVERSITY OF NOTTINGHAM

DEEP EVOLUTIONARY RELATIONSHIPS IN THE PULMONATE LAND SNAILS AND SLUGS

A Postdoctoral Research Fellow is required to work with Dr Chris Wade in the Institute of Genetics, University of Nottingham on a Leverhulme Trust funded project examining the deep evolutionary relationships in the pulmonate land snails and slugs. The project seeks to clarify the evolutionary relationships within terrestrial pulmonates using a molecular phylogenetic approach and forms part of a long-standing collaboration between Dr Chris Wade and Professor Bryan Clarke (The University of Nottingham) and Dr Peter Mordan and Mr Fred Naggs (Natural History Museum, London).

Candidates must have a relevant PhD, together with appropriate molecular biology and phylogenetic skills. Salary will be within the range £18,265 = - £20,311 per annum, depending on qualifications and experience. This = post is available from 1 October 2003 or as soon as possible thereafter and will be offered on a fixed-term contract for a period of three years.

Informal enquiries may be addressed to Dr Wade, tel: 0115 970 9405 or email: Chris.Wade@Nottingham.ac.uk.

Candidates should send a detailed CV, together with the names and addresses of two referees, to Dr C M Wade, Institute of Genetics, Queen's Medical Centre, Nottingham, NG7 2UH.

Closing date: 30 September 2003.

References: Wade, C. M., Mordan, P. B. & Clarke, B. C. 2001. A phylogeny of the land snails (Gastropoda: Pulmonata). Proceedings of the Royal Society (London): Biological Sciences 268: 413-422. Wade, C. M. & Mordan, P. B. 2000. Evolution within the Gastropod molluscs; using the ribosomal RNA gene cluster as an indicator of relationships. Journal of Molluscan Studies 66:565-570.

UOxford HapMap

University of Oxford

Department of Statistics and The Wellcome Trust Centre for Human Genetics

3 Postdoctoral Research Assistants (PDRA).

Academic-related Research Staff Grade 1A: Salary £18,265 to £27,339 p.a.

1 Scientific Programmer.

Academic-related Research Staff Grade IA: Salary £18,265 to £33,679 p.a.

Methodology, Analysis, and Software for the Human Haplotype Map Project

The human haplotype map (HapMap) is a major ($100M) international collaborative effort to catalogue the patterns of genetic variation, and in particular association and linkage disequilibrium, in the human genome, through the genotyping of around a million SNPs in each of three population samples. The scale and nature of the data being generated raises novel and challenging analytical questions, which will demand the development of new methodology and software.

Several of the leading groups on the analytical side of the project are based in the University of Oxford. The Mathematical Genetics and Bioinformatics Group in the Department of Statistics, and Professor Lon Cardon's group in the Wellcome Trust Centre for Human Genetics, were two of three internationally to be funded by the SNP Consortium to work on HapMap analysis. Three postdoctoral positions are available, each of two years' duration, to work on the development of analytical methods, and their application to the data being generated by the project. Successful candidates may start immediately, or at a mutually agreed date. Two of the advertised positions will be based in the Donnelly and McVean groups, within the Department of Statistics, the third in the Cardon group in the Wellcome Trust Centre for Human Genetics. There are close collaborative links between these groups, in general and over HapMap, and between them the University has one of the largest centres internationally for human population genetics modelling.

Applications for the PDRA posts are invited from researchers interested in working on this high-impact project: one of major importance in modern genetics. Candidates should have relevant background research experience in quantitative and statistical modelling. Experience in modern computationally-intensive statistical methods, and/or in population genetics, would be an advantage, as would background knowledge of genetics, though neither is essential for candidates committed to moving into the field.

We are also seeking a Scientific Programmer who will work in the Donnelly and McVean groups, in close collaboration with the modellers, to develop software for implementing novel analytical tools. Experience in C++ and/or Java is required. We envisage the post holder as having a central role in the scientific development of the project.

Well-qualified successful applicants for the four posts are likely to be appointed at or near the top of the respective salary scales given above.

Applications should comprise a CV and a list of publications together with the names, addresses, telephone, fax and e-mail details of three referees. Applicants should ask their referees to write directly so that references arrive by the closing date. Additional details concerning the posts, and the application procedure, are given in the further particulars, which are available from jobs@stats.ox.ac.uk, http://www.stats.ox.ac.uk or the address below. Informal enquiries should be directed to donnelly@stats.ox.ac.uk mcvean@stats.ox.ac.uk or lon@well.ox.ac.uk.

Applications and references should be submitted to

Mrs Sue Wood

Department of Statistics,

1 South Parks Road,

Oxford OX1 3TG.

Please quote AM-03-11 on all correspondence. The closing date for applications is 3rd October 2003. The University is an Equal Opportunities Employer.

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Gilean McVean Department of Statistics University of Oxford 1 South Parks Road, Oxford OX1 3TG UK

Tel: +44 1865 281881 Fax: +44 1865 272595 email: mcvean@stats.ox.ac.uk web: http://-www.stats.ox.ac.uk/~mcvean

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UToronto TheoBiol

Theoretical Biology: Postdoctoral Positions Available

Two postdoctoral positions to work with Peter Abrams at the University of Toronto on projects combining models of population dynamics with evolution, behavior, or other adaptive processes. Positions are for 2 years; salary $37,000-40,000 Canadian per year depending on qualifications. Send a curriculum vitae, copies of 2 publications, and names of two people who could provide letters of references to:

Peter Abrams Department of Zoology University of Toronto 25 Harbord St. Toronto, ON M5S 3G5 Canada

email address: abrams@zoo.utoronto.ca (application by email is fine as are electronic copies of publications)

Peter Abrams Professor of Zoology University of Toronto 25 Harbord St. Toronto, Ontario

M5S 3G5 Canada 416-978-1014 fax 416-978-8532 abrams@zoo.utoronto.ca

VictoriaU PlantEvol

Post-doctoral Fellowships (2) at Victoria University of Wellington, New Zealand.

Victoria University is a leading New Zealand University situated in Wellington, the capital city. We seek two excellent post-doctoral fellows to join our young and vigorous School of Biological Sciences (www.sbs.science.vuw.ac.nz/) in the fields of plant evolution and molecular ecology.

1. Plant Molecular Ecology. The research will involve application of molecular techniques to the study of rapid species radiations that have taken place in New Zealand from immigrant ancestors in the last few million years. The roles of immigrant selection, adaptive radiation, diploid hybrid speciation, allopatry, and diverse habitats will be examined using molecular phylogenetic techniques. The fellow will work with Professor Phil Garnock-Jones in collaboration with Associate Professor Peter Lockhart (Allan Wilson Centre for Research Excellence, Massey University, Palmerston North) and botanists at the Museum of New Zealand Te Papa Tongarewa. Applicants must have a PhD in systematic or evolutionary biology and should have a strong background in plant molecular systematics.

2. Evolution of separate and combined sexes in mosses. The fellow will work with Professor Phil Garnock-Jones and Dr Linley Jesson on a Marsden Funded project that will use mosses as a novel system to extend and test the generality of models that examine the evolution of separate and combined sexes. Applicants must have a PhD in plant ecology, systematics, or evolutionary biology and should have a strong background in one or more of molecular systematics, experimental and theoretical plant reproductive biology, evolutionary modeling, and bryophyte ecology and evolution. For further information and to express interest, please contact Professor Phil Garnock-Jones, School of Biological Sciences, Victoria University of Wellington, PO Box 600, Wellington, New Zealand, Phone +64 4 463 6085, Fax +64 4 463 5331, phil.garnock-jones@vuw.ac.nz.

– ********** Linley Jesson School of Biological Sciences Victoria University of Wellington PO Box 600 Wellington NZ phone +644 463 5573 fax + 644 463 5331

Wolbachia Research

Graduate Student and Postdoctoral positions

We are soliciting applications from individuals interested in either graduate-level or postdoctoral research on the biology of Wolbachia. These endosymbiotic bacteria are perhaps the most widespread parasites on earth and are likely to have profound effects on the ecology and evolution of their host species. The research is funded by a 5-year Frontiers in Integrative Biological Research (FIBR) grant from NSF. The proposed research aims to integrate approaches spanning genomics, genetics, functional biology, evolution, ecology, and biogeography. Training will thus be cross-disciplinary in nature, and individuals will have opportunities to work at multiple institutions, including the University of Rochester (John Werren (PI), John Jaenike, Mitsu Ogihara), UC - Riverside (Richard Stouthamer, Cheryl Hayashi, John Heraty), UC - Santa Cruz (Bill Sullivan), the Smithsonian Tropical Research Institute - STRI (Don Windsor), the American Museum of Natural History - AMNH (Rob DeSalle), the Marine Biological Laboratory -MBL (Jennifer Wernegreen), the Institute for Genomic Research -TIGR(Herve Tettelin) and Yale (Kevin White). Participants who currently have available positions for technicians (T), graduate students (G) or postdoctoral researchers (P) are indicated below along with their email address. Please send initial inquires to any of these individuals via email.

University of Rochester - John (Jack) Werren (T,G,P) werr@mail.rochester.edu - John Jaenike (G) joja@.mail.rochester.edu - Mitsunori Ogihara (G) ogihara@cs.rochester.edu

UC Riverside - Richard Stouthamer (G) richards@ucrac1.ucr.edu - Cheryl Hayashi (P) chayashi@citrus.ucr.edu

UC Santa Cruz - William Sullivan (G) sullivan@darwin.ucsc.edu

AMNH - Robert DeSalle (G) desalle@amnh.org

STRI - Donald Windsor (P) windsord@tivoli.si.edu

MBL - Jennifer Wernegreen (G) jwernegreen@mbl.edu

Professor of Biology Department of Biology University of Rochester Rochester, N.Y. 14627 email:werr@mail.rochester.edu fax:585-

275-2070 phone:585-275-3694 website:http://- index.html
www.rochester.edu/College/BIO/labs/WerrenLab/-

Instructions

Instructions: To be added to the EvolDir mailing list please send an email message to Golding@McMaster.CA. At this time provide a binary six letter code that determines which messages will be mailed to you. These are listed in the same order as presented here — Conferences; Graduate Student Positions; Jobs; Other; Post-doctoral positions; WorkshopsCourses. For example to receive the listings that concern conferences and post-doctoral positions this would be 100010. Messages are categorized on the basis of their subject headings. If this subject heading is not successfully parsed, the message will be sent to me at Golding@McMaster.CA. In addition, if it originates from 'blackballed' addresses it will be sent to me at Golding@McMaster.CA. These messages will only be read and dealt with when I have time. The code 000000 has all channels turned off and hence gets only a once monthly notifcation of the availability of a monthly review pdf file.

To be removed from the EvolDir mailing list please send an email message to Golding@McMaster.CA. Note that 'on vacation', etc, style messages are automatically filtered and should not be transmitted to the list (I hope), but should you wish to avoid the e-mail's your code can be temporarily changed to 000000.

To send messages to the EvolDir direct them to the email evoldir@evol.biology.McMaster.CA. Do not include encoded attachments and do not send it as Word files, as HTML files, as LaTeX files, Excel files, etc. ... plain old ASCII will work great and can be read by everyone. Add a subject header that contains one of the keywords "Conference, Grad, Job, Other:, Postdoc, Workshop" and then the message stands a better chance of being correctly parsed.

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. So please do not expect an instant response.

Afterward

This program is an attempt to automatically process a broad variety of e-mail messages. Most preformating is collapsed to save space. At the current time, many features may be incorrectly handled and some email messages may be positively mauled. Although this is being produced by LaTeX do not try to embed LaTeX or TeX in your message (or other formats) since my program will strip these from the message.