E v o l D i r

December 1, 2005

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.

—— / ——

Conferences

Edinburgh PopGenetics Dec2005 3

Today (November 7th) is the deadline for registration and payment for the Population Genetics Group meeting, in Edinburgh, December 2005 (Tuesday Dec. 13 - Friday the 16th).

The web site

http://web.bio.ed.ac.uk/public/conferences/-PopulationGenetics2005/index.html gives all details that are currently available (the programme for the meeting will appear as soon as I can organise it).

Registration is done using a box lower down the screen than the part you first see (the first part explains the procedure). Payment is by credit card, using another site to which a link is provided.

Please note that the correct information about how to select the Pop Group in the payment site is as follows): >After entering your email and other details as prompted, you get a >page to select the 'product' you want to pay for. From the left hand >pull-down menu, select Institute of Evolutionary Biology, and from >the right-hand menu select Conferences, and then the lower menu >shows the Pop Group.

There will be a late registration period of one week only, an extra charge (absolute deadline Monday November 14th).

Information is available on the web site, but here are some answers to the commonest questions.

Plenary speakers

Wolfgang Stephan (Munich) Population genetics of adaptation

Gil McVean (Oxford) The causes and consequences of human recombination hotspots

Patrice David (Montpellier) Quantitative genetics of traits controlling selfing and outcrossing in hermaphroditic snails

. Update of the information about arrival, computers and Poster boards. Arrival Go to the Reception desk of the James Watt Centre. They will direct you to the Registration desk, which will be open from 2pm. The building will be closed at 9pm, but there is a bell (on the left of the entrance) for the night porter (all night). The Reception desk or the night porter will give room keys.

Guests may check in to their accommodation from 1400 on the day of arrival and are asked to vacate bedrooms and return keys to reception by 1000 on the day of departure.

The registration desk for the meeting will be open in the main reception foyer just outside James Watt Centre from 1400-2200.

Computers The meeting rooms have a built-in projection system, and we will provide Macintosh computers for those who prefer them. We prefer people to bring their talks on a CD or 'data stick' and to load them onto one of the computers, at the latest in the break before their session. If you are bringing your own computer, however, for your talk, or other uses, remember that non-UK equipment will require an adaptor, because UK sockets are quite different from those elsewhere in Europe.

Poster boards The boards measure 1.2m x 1.8m and have a blue felt backing which requires posters to be affixed by using either hook velcro or pins. If you are

presenting a poster, please email me whether it is to be upright or 'landscape' format.

– Professor Deborah Charlesworth Institute of Evolutionary Biology, School of Biological Sciences, University of Edinburgh, Ashworth Lab., King's Buildings, West Mains Rd., Edinburgh EH9 3JT, UK

phone 131-650-5751 Fax: 131-650-6564

deborah.charlesworth@ed.ac.uk deborah.charlesworth@ed.ac.uk

Edinburgh PopGenetics Dec2005 4

A first draft of the PopGroup programme, as well as the poster titles and abstracts, and list of participants, can be seen on the web site.

http://web.bio.ed.ac.uk/public/conferences/-PopulationGenetics2005/index.html The web site includes a link to a file with More Information about arrival etc. There will be a Welcome buffet dinner on the Tuesday evening, starting at 6.30 pm.

Late registration is possible until December 20th (see the web site). – Professor Deborah Charlesworth Institute of Evolutionary Biology, School of Biological Sciences, University of Edinburgh, Ashworth Lab., King's Buildings, West Mains Rd., Edinburgh EH9 3JT, UK

phone 131-650-5751 Fax: 131-650-6564

deborah.charlesworth@ed.ac.uk deborah.charlesworth@ed.ac.uk

GordonConf Ventura MolEvol Feb5-10

2006 Molecular Evolution Gordon Research Conference February 5 - 10, 2006 (Sun eve - Thurs eve) Holiday Inn, Ventura, California

The Molecular Evolution Gordon Research Conference is held every two years, and brings together leading junior and senior scientists from around the globe in a small and informal conference setting to discuss current research as well as emerging opportunities and challenges in molecular evolution. This years meeting, held February 5 - 10, 2006, includes recent work on on ancestral protein reconstruction, computational evolutionary genomics, microbial/viral diversity and evolution, evolution of body plans, sex chromosome evolution, adaptive evolution, evolution of novelty and gene regulation, molecular evolution of interspecific hybrids, and the evolution of the germ line. Speakers and discussion leaders represent some of the leaders in experimental and computational/statistical approaches to understanding both the pattern and process of molecular evolution and the molecular basis of diversity. The meeting will be held at the Holiday Inn, Ventura California. This ocean-side location is located in the town of Ventura, and provides a wealth of opportunities to engage in scientific interaction and at the same time explore on foot the beaches, town, and adjacent hills. Whale-watching, winery tours, the Getty Museum and other attractions are nearby. All scientists with an interest in molecular evolution, and comparative and evolutionary genomics are encouraged to attend the conference. We particularly encourage participants to present posters on their research, and there will be ample opportunities for discussion and informal interaction.

We hope you will join us! Please also circulate this meeting info to colleagues, postdocs and students at your institution who may be interested in attending.

Applications and registration for the meeting is done through the GRC website (http://www.GRC.org). The size of the meeting is capped to keep it small and interactive. Thus, space is limited so please register soon! Please contact either of us if you have questions.

Chip Aquadro and Billie Swalla chair and co-chair of the 2006 conference

Confirmed speakers are as follows (titles are tentative):

Sunday Feb 5 ANCESTRAL PROTEIN RECONSTRUCTION (evening) Eric Gaucher (Foundation for Applied Molec. Evol.) - Discussion Leader Belinda Chang (Univ. Toronto) - Visual Proteins Joe Thornton (Univ. Oregon) - Steroid Hormone/ Receptor Relationships

Monday Feb 6 COMPUTATIONAL EVOLUTIONARY GENOMICS (morning) Bret Larget (Univ. of Wisconsin) - Discussion Leader Lior Pachter (U.C. Berkeley) - Multi-species genome alignments and inferences Pavel Pevzner (UCSD) - Genome rearrangements Lindell Bromham (Univ of Sussex) - Tempo and Mode of Molecular Evolution

MICROBIAL/VIRAL DIVERSITY AND EVOLUTION (evening) Peg Riley (Univ. of Massachusetts) - Discussion Leader Lin Chao (UC San Diego) - Modeling Ecology and Evolutionary Processes with Microbes John Logsdon (U of Iowa) - Using a meiosis detection

kit to reveal hidden sex lives of eukaryotes

Tues Feb 7 EVOLUTION OF BODY PLANS (morning) Billie Swalla (Univ. of Washington)- Discussion Leader Antonia Monteiro (Univ. of Buffalo) - Different ways of spotting butterfly and moth wings Ken Halanych (Auburn Univ.) - Phylogeny & evolution of Lophotrochozoa) Elena Kramer (Harvard) - Evolution of flowers (genes controlling floral organ identity)

SEX CHROMOSOME EVOLUTION (evening) Bernardo Carvalho (Univ of Rio de Janeiro) - Origin and Evolution of the Drosophila Y chromosome Jennifer Marshall Graves (Aust. Natl. Univ.) - Mammalian sex chromosome evolution

Wednesday Feb 8 ADAPTIVE EVOLUTION (morning) David Rand (Brown) - Discussion Leader Brian Lazzaro (Cornell) - Immunity Evolution in Insects Stephen Wright (York) - Testing for selection in domestic and natural plant populations Michael Nachman (Univ Arizona) - Adaptive evolution in reproductive genes and the origin of reproductive isolatin in mice

EVOLUTION OF NOVELTY AND GENE REGULATION (evening) Doug Crawford (U of Miami) - Evolution of Gene Expression and Physiology Kevin White (Yale) - Selection, drift and constraint: Gene expression evolution in Drosophila and primates

Thursday Feb 9 MOLECULAR EVOLUTION OF INTERSPECIFIC HYBRIDS (morning) Chung-I Wu (Univ. of Chicago)- Discussion Leader Dan Barbash (Cornell Univ.) - Drosophila Sterility Rudy Raff (Indiana Univ.) - Gene regulation in hybrids Toby Bradshaw (Univ of Washington) - Molecular genetics of species differences in monkeyflowers

EVOLUTION OF THE GERM LINE (evening) Eric Haag (Univ. of Maryland) - Discussion Leader Mark Martindale (Kewalo Marine Lab) - Germ line evolution and specification in Cnidarians Cassandra Extavour (Univ. of Cambridge, UK) - Germ line specification in Arthropods

---

Chip Aquadro Department of Molecular Biology and Genetics

— / —

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

IndianaU DaphniaGenomics Jan17-19

Daphnia Genomics Consortium - Meeting 2006

January 17 through 19, 2006 Indiana University, Bloomington, Indiana

Conference Website: http://-conferences.cgb.indiana.edu/daphnia2006 This meeting of the Daphnia Genomics Consortium will be held on the Bloomington campus of Indiana University. This gathering will commemorate the beginning of the long-term project of understanding the structure and biology of the newly sequenced Daphnia genome and will map out future research directions.

The meeting will bring together an interdisciplinary group of distinguished researchers. The prospects for utilizing the Daphnia genome are vast: members of the Daphnia Genomics Consortium use Daphnia as a model system across areas of biology including genetics, evolution, ecology, ecotoxicology, and aquatic biology. The release of the draft genome sequence will further thrust each of these research areas into the current age of genomics and will add the first crustacean to the growing list of characterized arthropod genomes.

There are opportunities for participants to present original research in the form of talks or posters on recent studies in genomics or advances in genomic approaches, especially in relation to evolutionary ecology.

We invite interested researchers to attend, even if you are not (yet!) a member of the Consortium. If other researchers have studies or techniques that will enhance our view of the possibilities in using Daphnia, we certainly encourage your participation.

IMPORTANT DATES:

November 1, 2005 - Registration opens (registration fee $125) December 1, 2005 - last date for abstract submission; registration fee increases to $150

Daphnia Genomics Consortium - http://-daphnia.cgb.indiana.edu/ jcolbour@cgb.indiana.edu jcolbour@cgb.indiana.edu

Lisbon EvolBiol Dec22

National Meeting of Evolutionary Biology (Portugal) Encontro Nacioal de Biologia Evolutiva (message in portuguese below)

Date: 22/ December (thr), 9:30-17:30 Location: Edifício C2, Faculdade de Ciências de Lisboa Campo Grande, Lisboa, Portugal (http://www.fc.ul.pt/)

Program: There will be an inital presentation on the present nacional context of Evolutionary Biology in Portugal and future prospects (speakers TBA), followed by a single session, divided into 3-4 tematic mini-sessions. These mini-sessions will have a moderator, an initial speaker who will make a short presentation on the topic followed by an open session during which participants may pose questions and present their own research projects. Mini-session topics (e.g., phylogeography, cooperation with portuguese-speaking countries) will be defined as a function of the participants. There will be the customary (and necessary) coffee breaks. With this format, we hope to allow for and open and fairly informal conversations among participants, so that we may improve the knowledge of each others work.

Posters: The participants may bring a poster, that will be exhibited during the day. In the spirit of the meeting, posters are mainly to facilitate the introduction of the participants. Therefore, we do not require that posters be original. Participants may bring posters presented recently at other conferences.

Registration: send an e-mail to biologia.evolutiva@gmail.com, by 12 of Dec., with the following information: Name: Instituition: Research area(1-2 descriptive sentencesfrases descritivas): Poster: YES NO Sugestion of mini-session: Interested in moderating mini-session: YES NO How did you hear about this meeting: Are you registered in the electronic group (http://groups.google.com/group/-biologia_evolutiva): YES NO Comments:

Registration Fee: There is no registration fee. However, a small payment may be requested, on the day of the meeting, to help finance any organizational expenditures.

Further questions or issues may be sent to biologia.evolutiva@gmail.com or to the electronic forum Biologia Evolutiva em Portugal http://-groups.google.com/group/biologia_evolutiva . Preparatory Committee: André Levy (ISPA), Henrique Teotónio (IGC), Margarida Matos (FCUL).

–

Data: 22 de Dezembro (5a feira), das 9:30-17:30 Local: Edifício C2, Faculdade de Ciências de Lisboa (sala a confirmar) Campo Grande, Lisboa (http://-www.fc.ul.pt/)

Organizaão do dia: Haverá uma apresentaão sobre o panorama nacional da BE em Portugal e perspectivas de trabalho futuro (convidados a confirmar), seguindo de uma sessão única, repartida em 3-4 mini-sessões temáticas ao longo do dia. Estas mini-sessões terão um moderador, e um interveniente inicial, que fará uma apresentaão curta sobre o tema, dando em seguida oportunidade ao plenário para intervir. Este espao será aberto para que participantes possam fazer perguntas científicas, lanar questões, e fazer apresentaão dos seus trabalhos ou grupos de investigaão (haverá condiões para projecão de computador). Os temas das mini-sessões será definido em funão das áreas de trabalho e sugestões dos inscritos. (Exemplos: filogeografia, cooperaão com CPLP.) Haverão as habituais (e necessárias) pausas para café. Procura-se assim permitir diálogo e criar um espao de alguma informalidade para um número alargado de participantes intervirem e se conheerem.

Posters: Os participantes poderão apresentar um poster, que ficará exposto durante o dia. No âmbito deste encontro, o poster servirá sobretudo para facilitar a apresentaão dos participantes. Não se exige, assim, que o poster seja uma criaão original para este encontro, podendo os participantes aproveitar posters apresentados recentemente noutras reuniões.

Inscriões: enviar um correio electrónico para biologia.evolutiva@gmail.com, até 12 de Dezembro, com a seguinte informaão: Nome: Instituião: Área de Trabalho (1-2 frases descritivas): Poster: SIM NÃO Sugestão de tema para mini-sessão: Interessado em moderar mini-sessão: SIM NÃO Como ouviu falar do encontro: Está inscrito no grupo electrónico

— / —

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

London NHM Speciation Nov9 2

Speciation Symposium - FINAL REMINDER

The Natural History Museum, Cromwell Road, London - Wednesday 9 November 2005

Everyone interested in speciation is warmly invited to attend. The symposium will be held in the Flett Lecture Theatre (for security reasons it is important that you use the EXHIBITION ROAD entrance to the Museum NOT the main entrance on Cromwell Road).

The meeting begins at 12.45 and ends at about 18.00. There will be an invited presentation by Patrik Nosil and 10 other talks (programme available on request).

Registration is not required and admission is free. Dinner after the meeting has been booked for those who requested places - details will be available at the meeting.

Roger Butlin (r.k.butlin@sheffield.ac.uk) and Ralph Harbach (reh@nhm.ac.uk)

r.k.butlin@sheffield.ac.uk r.k.butlin@sheffield.ac.uk

Marseilles 10thEvolBiol Sept20-22 2

The 10th evolutionary biology meeting at marseilles will take place the 20th, 21st, 22nd of September 2006. for more info

http://www.up.univ-mrs.fr/evol-cgr/ abstract submission and early registration will be possible after the 12/10/2005 best regards Pierre

– Pierre Pontarotti EA 3781 Evolution Biologique Université d'Aix Marseille I Centre St Charles 3 Place Victor Hugo 13331 Marseille Cedex 3 33491106489 http://www.up.univ-mrs.fr/evol We are organizing the 10th Evolutionary Biology Meeting at Marseille http://www.up.univ-mrs.fr/evol/congres/ Pierre.Pontarotti@up.univ-mrs.fr

Montreal Phylogenomics Mar16-19

********* Conference announcement **********

First International Conference on Phylogenomics Dates: March 16-19 2006 Location: Sainte-Adèle (near Montreal), Québec, Canada Web site: http://www.bioinfo.umontreal.ca/evenements/-phylogenomics.html Organizers: Hervé Philippe and Mathieu Blanchette

Scope: This conference aims to reunite experts focusing on two distinct aspects of phylogenomics: the use of genome data inferring species phylogeny and the use of phylogenetic approaches to gain insights into gene functions. The methods developed for phylogenetic inference (especially the models of sequence evolution) are quite advanced and could benefit to function prediction. Similarly, the knowledge of the accurate species phylogeny increases the quantity of functional information that can be extracted. Conversely, knowledge of gene function and the other selective constraints is primordial to improve tree reconstruction methods. This conference will create synergy between these two phylogenomic communities, bridging the gap between there respective scientific endeavors. A special issue of BMC Evolutionary Biology will be dedicated to the conference, allowing contributors of the conference to submit their manuscripts.

Invited speakers: * Ford Doolittle Dalhousie University, Canada * Jonathan Eisen, The Institute for Genomic Research, USA * Brian Golding, McMaster University, Canada * Nick Goldman, EMBL-EBI Cambridge, UK * Richard Goldstein, National Institute for Medical Research, USA * Jotun Hein, University of Oxford, UK * Mark Pagel, University of Reading, UK * Eduardo Rocha, Université Paris 6, France * Andrew Roger, Dalhousie University, Canada * Michael Sanderson, University of California, USA * Adam Siepel, Cornell University, USA * Yves van de Peer, Ghent University, Belgium

Important dates: Deadline for early registration: January 15th 2006. Deadline for abstract submission for presentation: January 15th2006 Deadline for manuscript submission (accepted abstracts only): March 1st 2006

Mathieu Blanchette <blanchem@mcb.mcgill.ca>

Prague EuropeanEvolDevo Aug17-19 2

euro-evo-devo 2nd announcement12

Second announcement: Prague, 17-19 August 2006

We are pleased to announce the first and founding meeting of the European society for Evolutionary Developmental biology (EED)

Keynote speakers: - Philippe Janvier (Paris, France) - Pat Simpson (Cambridge, U.K.) - Günter Theissen

(Jena, Germany) - Hervé Philippe (Montreal, Canada) - Jukka Jernvall (Helsinki, Finland) - Barbara Gravendeel (Leiden, the Netherlands)

Symposia: -"Evo-Devo History" (organizer: Scott Gilbert) -"Homeobox genes in evolution and development" (organizers: Dave Ferrier, Jordi Garcia Fernandez) -"Modularity" (organizer: Chris Klingenberg) -"Stem groups and their importance for evolutionary developmental biology types" (organizers: Graham Budd, Phil Donoghue) -"Head Evo-Devo" (organizers: Lennart Olsson, Michael Depew) -"Insect Evo-Devo" (organizer: Urs Schmidt-Ott) -"Plant Evo-Devo" (organizer: Günter Theissen) -"Evolutionary Novelties" (organizers: Gerhard Schlosser, Shigeru Kuratani) -"Lamprey, shark, and vertebrate Evo-Devo" (organizers: Didier Casane, Sylvie Mazan) -"Theoretical approaches to pattern formation, variation and innovation" (organizers: Isaac Salazar-Ciudad, Tom van Dooren) -"Late development Evo-Devo" (organizers: Eckhard Witten, Ann Huysseune) -"Limb Evo-Devo" (organizer: Michael Richardson)

The organising comittee looks forward to seeing you in Prague.

Information: http <http://natur.cuni.cz/evodevo/-> ://natur.cuni.cz/evodevo/ <http://natur.cuni.cz/-evodevo/> frietson.galis@gmail.com

pbeldade@biology.leidenuniv.nl

GradStudentPositions

AllanWilsonCentre NZ

A number of PhD scholarships are available (up to four) in the Allan Wilson Centre for Molecular Ecology and Evolution. Details of possible projects are given below. Other projects however are available depending on the background and interests of applicants.

Scholarships are available to students of any nationality.

Applications should be addressed to:

Prof David Lambert Allan Wilson Centre for Molecu-

lar Ecology and Evolution Massey University Private Bag 102 904 NSMC Auckland New Zealand Email - D.M.Lambert@massey.ac.nz

Closing Date: December 14th, 2005

Stipends are NZ$25,000 pa including fees. To be eligible students will need to meet the criteria set down by the University for entry into the PhD programme which in general is a first or second-class honours or a Masters degree. Those for whom English is a second language must present the results of an IELTS or TOEFL test as literacy abilities are a necessary prerequisite for admission to a postgraduate degree at Massey University.

Forensic Analysis of Feathers from Maori Cloaks Supervisors: Prof David Lambert, Craig Millar and Leon Huynen, Allan Wilson Centre, Auckland, New Zealand

We have a research programme underway to identify the species and geographic provenance of birds used to construct Maori cloaks. These data can then be used to test ideas about how cloaks were constructed, for example to determine if skins were traded in order to construct them. Ideally a Maori student from New Zealand should work on this programme. However, other suitable applicants would be considered.

For background see: Huynen, C.D., Millar, C.D., Scofield, R.P. and Lambert, D.M. 2003. Nuclear DNA sequences detect species limits in ancient moa. Nature 425: 175-178.

Lambert, D.M., Baker, A., Huynen, O., Hebert, P.D.N. and Millar, C.D. 2005. Is a large-scale inventory of life possible? Symposium Issue: 2004 Annual Meeting, American Genetic Association Edited by Shozo Yokoyama Journal of Heredity 96(3): 279-284

Baker, A.J., Huynen, L., Haddrath, O., Millar, C.D. Lambert, D.M. 2005. Reconstructing the tempo and mode of evolution in an extinct clade of birds with ancient DNA: the giant moas of New Zealand. Proceedings of the National Academy of Sciences USA 102 (23): 8257-8262.

Multiplex PCR of complete mitochondrial genomes Supervisors: Prof David Lambert, Dr Craig Millar and Dr Dee Denver Allan Wilson Centre, Auckland, New Zealand

We are currently using the above methods to amplify complete mitochondrial genomes of Adélie penguins from the Antarctic. This new technology allows the rapid determination of complete mitochondrial DNA sequences. Samples of up to 37,000yrBP are available and the student will also be involved in the analysis of the resulting genome data to determine evolutionary rates over time. The student may be required to conduct field work in the Antarctic.

For background see: Lambert, D.M., Ritchie, P.A., Millar, C.D., Holland, B., Drummond, A.J. and C. Baroni. 2002. Rates of evolution in ancient DNA from Adélie penguins. Science 295: 2270-2273. Ritchie, P.A., Millar, C.D., Gibb, G. Baroni, C. and Lambert, D.M. 2004. Ancient DNA Enables Timing of the Pleistocene Origin and Holocene Expansion of Two Adélie Penguin Lineages in Antarctica. Molecular Biology and Evolution 21(2): 240-248. Shepherd, L.D., Millar, C.D. Ballard, G. Ainley, D.G., Wilson, P.R., Haynes, G.D., Baroni, C. and Lambert D.M. 2005. Microevolution and megaicebergs in the Antarctic. Proceedings of the National Academy of Sciences USA in press.

COI mutation rates in birds Supervisors: Prof David Lambert, Dr Craig Millar and Dr Andrew Dodd Allan Wilson Centre, Auckland, New Zealand

We have a very large collection of family material of Adélie penguins that will enable us to estimate mutation rates per generation. The DNA Barcoding of Life project requires good estimates of the rate of mutation of the cytochrome c oxidase I gene, since DNA sequences from the 5' end of this molecule have been widely used for the barcoding of animals. The student will also work with our DNA sequencing technician to conduct this large-scale study.

For background see:

Lambert, D.M., Baker, A., Huynen, O., Hebert, P.D.N. and Millar, C.D. 2005. Is a large-scale inventory of life possible? Symposium Issue: 2004 Annual Meeting, American Genetic Association Edited by Shozo Yokoyama Journal of Heredity 96(3): 279-284

For background see: Huynen, C.D., Millar, C.D., Scofield, R.P. and Lambert, D.M. 2003. Nuclear DNA sequences detect species limits in ancient moa. Nature 425: 175-178.

http://www.barcodinglife.org/ Testing Evolutionary Hypotheses about sexual dimorphism in birds Supervisors: Prof David Lambert and Dr Craig Millar, Allan Wilson Centre, Auckland, New Zealand

Beak shape in birds is a classic example of evolution. From Darwin's finches to the

— / —

Canadian Barcode of Life

The Canadian Barcode of Life Network is currently advertising 14 postdoctoral fellowships and 13 graduate studentships in a wide range of topics: the diversity of animals, plants, protists and fungi; bioinformatics; DNA technology and genome size evolution.

For further information see http://www.bolnet.ca/-job_postings.htm These positions are primarily to work on Canadian organisms but applications from non-Canadians will be considered.

Poptential candidates should contact the person listed under the specific position of interest as noted under the individual position descriptions on the website.

laurencepacker@yahoo.com

ChicagoBotanicGarden ConservationBiol

Below is an advertisement for a graduate research internship, working at Bureau of Land Management (BLM) and the National Parks Service (NPS) offices, in the areas of conservation biology and natural resource management. This internship provides a invaluable opportunity to gain a wide breath of field experiences. If you could pass it onto any interested parties (particularly biological science, EEB and Environmental Science majors) or advertise it within your respective departments, it would be much appreciated. For printed advert, applications and any additional inquires please contact Dr Lara Jefferson (ljefferson@chicagobotanic.org)

Cheers

Chicago Botanic Gardens Conservation and Land Management Internship Program in collaboration with the Bureau of Land Management and National Park Service

Looking for College graduates interested in a paid internship in conservation biology and natural resource management?

50 five-month paid internships for outstanding college graduates Working with the Bureau of Land Management (BLM) and National Park Service (NPS) predominantly in the western states

Intern duties may include:

o Plant and animal monitoring and mapping o Endangered species reintroduction o Invasive species management Geographic data acquisition and analysis o Biological assessments, sensitive species lists and conservation plans o Fire ecology o Land use planning o Archaeology-related activities o Recreation areas management o Rangeland assessments o Seed collection

Interns participate in a one-week training course held in late May in Chicago. Travel and lodging expenses will be covered. Training includes: o BLM/NPS orientation o Endangered Species Act and associated programs o Plant and animal identification and monitoring o GIS and mapping o Topographical map reading and GPS skills

$750 / pay period (every 2 weeks)

How to apply: o Send a letter of interest, official school transcript(s), resume, and three letters of recommendation to the address below by February 1, 2006. o Applicants must have a visa authorized for employment in the United States of America.

Pending funding, an optional extension may be offered to selected interns for an additional 5-month internship with the Department of Conservation and Land Management in Western Australia.

Genetics Lab <Lab@chicagobotanic.org>

ETH Zurich EvolEcol

Ph.D. Position in Evolutionary Ecology and Genetics at ETH Zürich, Switzerland

We are seeking PhD candidate (3 yrs) with a strong interest in the evolution of ecological traits to study mechanisms of habitat adaptation in Silene. This project will involve field and common garden experiments and QTL analyses and will be conducted within the Plant Ecological Genetics group at ETH Zürich. Our group is using Silene as a model system for ecological genetics and current research topics include hybridisation and introgression, QTL analyses, habitat adaptation, reproductive isolation, floral odor, and genomics.

We welcome candidates who enjoy team work but are also used to contributing independent ideas. Experience with experimental field work and statistical analyses, as well as a talent for organization are

a must. Knowledge of genetic laboratory methods (AFLP, microsatellites) would be advantageous but is not required. Candidates should have completed their Master[1]s degree or equivalent (Diplom) in a relevant field and be fluent in English.

Our group offers a supportive and stimulating environment, a state-of-the-art molecular lab (including real-time PCR, an automated sequencer, and a BioRobot), as well as excellent climate chambers, greenhouses and common garden facilities.

Zurich is an international city of about 350,000 people in the heart of Europe and has been recently rated as the city with the highest quality of life in Europe. Excellent public transportation exists within the city, to the nearby mountains, and to the rest of Europe.

The position can start as early as January 2006, however, later staring dates until March 2006 can be negotiated. To apply, please send to address given below: 1) a letter describing your research motivation and experience 2) a CV together with a copy of your degree certificates (graduate and undergraduate) 3) full contact details of two scientific referees. Applications by email are encouraged.

Further information: sophie.karrenberg@env.ethz.ch

Dr. Sophie Karrenberg Plant Ecological Genetics (Prof. Widmer) Institute of Integrative Biology (formerly Geobotanical Institute) ETH CH-8092 Zürich, Switzerland e-mail: sophie.karrenberg@env.ethz.ch tel.: +41 44 632 8713

PS: this is the same position advertised under the heading Genetics (misleading) last week, because I did not realize I had to add a detailed title to my message.

sophie.karrenberg@env.ethz.ch sophie.karrenberg@env.ethz.ch

ETH Zurich EvolImmuneDefence

Graduate Position: PhD at the ETH Zurich, Switzerland

Evolutionary Ecology of Immune Defence

The experimental ecology lab at the ETH Zurich is seeking a graduate student interested in doing a PhD in aspects of evolution and ecology of host-parasite interactions and immune defence. This includes the evolutionary significance of specificity and phenotypic plasticity in invertebrate immunity. The Department of Ecology and Evolution is located at the ETH in the center of Zurich, Switzerland, and consists of the two closely collaborating groups of Experimental Ecology and Theoretical Biology, headed by Profs. Paul Schmid-Hempel and Sebastian Bonhoeffer, respectively.

For more information, or for sending your application (including a CV, a statement of research interests and experience, the names and e- mail addresses of two references), please contact:

Joachim Kurtz (joachim.kurtz@env.ethz.ch)

***

Dr. Joachim Kurtz

ETH Zurich Experimental Ecology Universitatsstr. 16 ETH-Zentrum, CHN J12.1 CH-8092 Zurich Switzerland

Phone: + 41 44 63 36 032 Fax: + 41 44 63 21 271

E-mail: joachim.kurtz@env.ethz.ch

WWW: http://www.eco.ethz.ch/index.html http://-www.eco.ethz.ch/portraits/kurtz/index.html *****

Joachim Kurtz <joachim.kurtz@env.ethz.ch>

ETH Zurich Genetics

Ph.D. Position in Ecological Genetics At ETH Zürich, Switzerland

We are seeking PhD candidate (3 yrs) with a strong interest in the evolution of ecological traits to work on mechanisms of habitat adaptation in Silene. This work will involve field experiments, common garden experiments and QTL analyses and will be conducted in the Plant Ecological Genetics group at ETH Zürich. Our group is currently establishing Silene as a model system for ecological genetics and topics studied include introgression analyses, QTL analyses, habitat isolation, serpentine tolerance, floral odor and pollinator preference.

We welcome candidates who enjoy team work but are also used to contributing independent ideas. Experience with experimental field work and statistical analyses, as well as a talent for organization are a must. Knowledge of genetic laboratory methods (AFLP, microsatellites) would be advantageous but is not required. Candidates should have completed their Master[1]s degree or equivalent (Diplom) in a relevant field and be fluent in English.

Our group offers a supportive and stimulating environment, a state-of-the-art molecular lab (including a real-time PCR machine, an ABI automated sequencer, and a BioRobot), as well as excellent climate chambers, greenhouses and common garden facilities.

Zurich is an international city of about 350,000 people in the heart of Europe and has been recently rated as the city with the highest quality of life in Europe. Excellent public transportation exists within the city, to the nearby mountains, and to the rest of Europe.

The position can start as early as January 2006, however, later staring dates until March 2006 can be negotiated. To apply, please send to address given below: 1) a letter describing your research motivation and experience 2) a CV together with a copy of your degree certificates (graduate and undergraduate) 3) full contact details of two scientific referees. Applications by email are encouraged.

Further information: sophie.karrenberg@env.ethz.ch

Dr. Sophie Karrenberg Plant Ecological Genetics (Prof. Widmer) Institute of Integrative Biology (formerly Geobotanical Institute) ETH CH-8092 Zürich, Switzerland e-mail: sophie.karrenberg@env.ethz.ch tel.: +41 44 632 8713

sophie.karrenberg@env.ethz.ch

Goettingen Phylogenetics

Dear colleagues, because we haven't identified a suitable candidate yet for the position advertised below (first appearance here on EvolDir on Sept. 1, 2006), we will extend application period until the position is filled. Pls distribute widely to potential applicants.

.....

Göttingen, Germany: Research Associate (PhD) position in molecular phylogenetics and phylogenomics.

We invite applications for a research associate (PhD) position in a project funded by the German Research Foundation (DFG) A combined phylogenomic and palaeontological approach to resolve deep phylogenetic incongruences among Phylum Porifera" in the newly established DFG Priority Programme 1174: "Deep Metazoan Phylogeny" The project is located in the Department of Geobiology (Working group of Junior Prof. Dr. Gert Wörheide) of the Geoscience Centre of the University of Göttingen (Germany). The Dept. of Geobiology is also part of the Göttingen Centre for Biodiversity and Ecology.

The phylogenetic relationships among lower metazoan groups (i.e. diploblast taxa Porifera, Ctenophora, Cnidaria) are still under hot debate and are far from being resolved. Uncertainty also exists about whether poriferans (sponges) are monophyletic or paraphyletic. If the latter turns out to be corroborated, it has significant implications for the evolution of "higher" animals, as it would suggest that the most recent common ancestor of Eumetazoa was similar to an adult sponge. This project will use, for the first time, a combined phylogenomic, bioinformatic and palaeontological approach aiming to resolve phylogenetic incongruences at the base of the metazoan tree and firmly date cladogeneses and first appearances of poriferan clades. The main responsibilities of the successful candidate will be 1) to construct cDNA libraries of major poriferan lineages and prepare for large scale EST sequencing; 2) to work towards a multi-marker molecular phylogeny of main poriferan lineages; 3) to carry out phylogenomic analyses of EST- and genome sequences. This project will be carried out in close collaboration with Prof. Morgenstern (Bioinformatics) and Prof. Reitner (Precambrian/Cambrian diploblast fossil record)

We are seeking a highly motivated applicant with excellent molecular- phylogenetic skills, both in the lab and in silico, demonstrated by an above-average MSc (or equivalent, e.g. German Diplom") degree in a related field.

The successful candidate will join a young and dynamic lab focussing on micro- and macroevolution in marine invertebrates. More information about the lab can be found at www.geobiology.nu . The opportunity to enrol in the new PhD study course Biodiversity and Ecology" will be given.

Requirements: Degree in Biology (MA, MSc, or equivalent degree) or related field; very good and demonstrated knowledge of molecular lab techniques and understanding of molecular evolution including methods to infer molecular phylogenies and state-of-the art computer programs for such analyses; excellent English language skills. Good working knowledge of UNIX/LINUX and Perl or Python desirable but not essential.

The position is available for 2 years (with possible extension depending upon performance and available funding) and will be paid according to the German BATIIa salary scheme (part time).

Application: Send application including letter of intent, CV, PDF's of publications (if available), and

details of 2 referees as PDF (only) by email or snail mail to Gert Wörheide (gert.woerheide@geo.uni-goettingen.de). Only applications stating the keyword "DEEP-PORI" will be accepted. Applications are welcome until the position has been filled.

The Department of Geobiology of the Geoscience Centre of the University of Göttingen offers an excellent multidisciplinary research environment, its particular strength being due to the close interaction between Geosciences, the Göttingen Centre for Biodiversity and Ecology and the Biological Faculty including Bioinformatics. More information about the department at www.geobiologie.uni- goettingen.de.

The University of Göttingen is an equal opportunity employer. Women and members of minority groups including disabled persons are strongly encouraged to apply.

Gert Wörheide Junior Professor for Geobiology Geoscience Centre Göttingen Dept. of Geobiology Goldschmidtstr.3 37077 Göttingen, Germany

Centre for Biodiversity and Ecology University of Göttingen

phone: +49-(0)551 39 14 177 mobile: +49-(0)178 537 22 33 fax: +49-(0)551-39 79 18

gert.woerheide@geo.uni-goettingen.de

www.geobiology.nu www.geobiologie.uni-goettingen.de
Subject Editor Porifera Zootaxa

— / —

GoteborgU PipefishEvolution

ANNOUNCEMENT: PhD Student Position in Animal Ecology at Dept of Zoology, Göteborg University, Sweden

Biologists that have graduated in zoology, evolutionary or behavioural ecology (or nearby areas), interested in post graduate studies for a PhD degree in Animal Ecology are encouraged to apply.

You will be working with behavioural and evolutionary ecology studies in a project on brood reduction in a pipefish (Syngnathus typhle). Pipefishes belong to the same family as seahorses, but in contrast to seahorses, which are predominantly monogamous, this pipefish is highly polygamous. However, in common with seahorses they show paternal care by carrying the eggs in a brood pouch from mating to parturition. Yet, for unknown reasons some offspring do not develope successfully. The focus of the project is to understand the major reasons for such reduction in offspring numbers and the consequences of it for sexual selection, both before and after mating. The project is carried out in collaboration with researchers from Uppsala and Texas A&M Universities and involves field work at Kristineberg Marine Reseach Station (http://www.kmf.gu.se/index_general_info.html) at the Swedish west coast.

Preferred qualifications: MSc (or equivalent) in biology with a finished graduate project (worth 20 weeks of studies, or more, with a written report/thesis) with an ecological or evolutionary focus. Experience from behavioural ecology studies is meriting, as is an interest in physiological processes. We are looking for a PhD student who is interested in theory as much as empirical work, has a good analytical capacity and is able to take initiatives.

The PhD studies are planned to start 1 February 2006 (or as agreed upon). For fulltime studies funding is given as a stipend for the first two years and as a position for the following two years. Normally the PhD student will do 20% teaching and supervision of undergraduates, which extends the period of PhD studies to a total of approx. five years.

For more information, please contact main supervisor Professor Charlotta Kvarnemo, e-mail lotta.kvarnemo@zoologi.su.se (until 30 November 2005)/ lotta.kvarnemo@zool.gu.se (from 1 December 2005). See also http://www.zoologi.su.se/research/-lotta for more information.

Application The application should include a letter (less than one page) telling why you do apply for this position. To the application, please attach a verified CV (including a list of which university courses you have taken and the grades you were given), verified copies of relevant academic degrees and former positions, and a copy of your graduate work. Also, please provide a reference name with contact details (phone number and e-mail address) or a letter of recommendation.

The application should be mailed to: GÖTEBORG UNIVERSITY Department of Zoology Attention: Ann-Sofie Olsson, Box 463 SE-405 30 Gothenburg, Sweden

The application must be received no later than 2 December 2005. Please label the envelope ref nr B311

3755/05 - Ekologisk zoologi

Trade union representatives: SACO Jan Berggren, tel +46-31-773 1078, SEKO Lennart Olsson, tel +46-31-773 1173, OFR-S Eva Sjögren, tel +46-31-773 1169.

Dean of the Faculty

——— Dr Charlotta Kvarnemo Department of Zoology Stockholm University SE10691 Stockholm Sweden phone +46-8-164046 fax +46-8-167715 e-mail lotta.kvarnemo@zoologi.su.se web page http://www.zoologi.su.se/research/lotta Lotta Kvarnemo <lotta.kvarnemo@zoologi.su.se>

Groningen EvolPhysiology

The research group Animal Ecology of the research institute Centre for Ecological and Evolutionary Studies (Faculty of Mathematics and Natural Sciences, University of Groningen) has a vacancy for a full-time PhD-position:

PhD Project title "Solutions to seasonal challenges: the interplay between immune function and energetics in avian life history"

Seasonal challenges have frequently been invoked as explanation for differences in life histories among bird species, but knowledge of seasonal patterns of self-maintenance and disease, and understanding of the underlying physiological mechanisms are incomplete. This project aims to examine how birds cope with environmental challenges through an integrated study of energetics and immune function in desert, tropical and temperate environments. These environments have different seasonal patterns in climate, resource availability and risk of disease. Seasonally recurrent challenges include food and water shortages combined with high ambient temperatures during desert summers, and food shortages and low temperatures during temperate zone winters, whereas tropical areas are benign yearround. We hypothesize that during the most stressful season, e.g. desert summers and temperate zone winters, free-living birds may be forced to compromise immune function because they cannot meet its presumed energy requirements.

Job description

This project compares lark species from desert, tropical and temperate areas, and in addition provides scope for intraspecific studies on one or two lark species. Using a combination of laboratory and field energetics, and new immunological assays for field studies, you will assess overall levels and seasonal patterns of metabolic rate and immune function. In addition, you will investigate the links between metabolism and immune function with field and lab experiments.

Requirements

We are looking for a broad-minded candidate with an interest to integrate information from different levels of biological organization, and the aspiration to cooperate in an international team. Ideally, you are a passionate field ecologist, with affinity with physiological, microbiological and biochemical laboratory work. You will be excited by the prospect of working in often mentally demanding and harsh climate conditions in the Middle East and Africa, besides fieldwork in the Netherlands. You have experience with fieldwork, and a driver's license.

Information

For more information about the project please contact Dr. B. Irene Tieleman, B.I.Tieleman@rug.nl, +31 50 3638096

Additional information can be found at:

http://www.tielemani.fmns.rug.nl/ http://www.rug.nl/biologie/onderzoek/onderzoekgroepen/dieroecologie/index http://www.rug.nl/cees/ Conditions of employment

The University of Groningen offers an appointment for a period of four years that should be completed with the defense of a PhD-dissertation. The university is currently re-evaluating the hiring policy of PhD-students. Type of appointment and salary will depend on the outcome of this discussion. A training program is part of the PhD-trajectory. You and your supervisor will design a plan for additional education and supervision tailored to your specific needs. Your supervisors will be Dr. B. Irene Tieleman and Prof. Dr. Theunis Piersma

Application

Interested applicants should send a 1-page statement of research interests, motivation for this project and academic/professional goals; a complete CV; copies of publications; and names and contact information of two referees who can supply letters of recommendation upon our request.

Please send applications before 1 December 2005 to: Dr. B. Irene Tieleman Animal Ecology Group Centre for Ecological and Evolutionary Studies P.O. Box 14 9750 AA Haren The Netherlands B.I.Tieleman@rug.nl

ImperialCollegeLondon HostParasite

Ph.D. Studentship - Experimental host-parasite coevolution in yeast. NERC Center for Population Biology, Imperial College London

We are looking for a Ph.D. student to study host-parasite coevolution in experimental and natural populations of yeast. Many strains of yeast are infected with intracellular genetic parasites (DNA plasmids and RNA viruses) that replicate at the expense of their host. Although geneticists have known about these parasites for a long time, little is known about their ecology and evolution. We outline some of the interesting questions that we think could be investigated with this system below, although these could easily be changed depending on the interests of the student. The studentship is funded by NERC (UK) and the student will be based at the NERC Center for Population Biology located at the Silwood Park campus of Imperial College London. The Center for Population Biology offers students access to an outstanding group of researchers in evolution and ecology aswell as excellent lab facilities. This position is ideal for students who would like to carry out independent research project in a stimulating and challenging environment. Experience in microbiology and molecular biology are assets, but they are not required. Interested applicants should send a cv detailing their experience and interests to Craig MacLean (c.maclean@imperial.ac.uk). Ideally, the student would begin their project in September, 2006.

Craig MacLean Austin Burt

Research topics

1) What affect do the elements have on the host cell, both alone and in combination? The DNA plasmid has been shown to reduce replication rates by about 2%, but what about the others?

2) How does the copy number of these elements within the infected cell change over the yeast life cycle? In particular, does the entry of yeast into sexual phases of the life cycle trigger parasite replication as an adaptation to swamp competitors in a potential mate?

3) Sex and the evolution of copy number. Simple theory suggests that in outcrossed populations the elements will evolve higher copy number than inbred populations, as an adapation to compete against unrelated elements in the mate. Increased parasite virulence in sexual populations may select for hosts with increased defense against parasites.

4) The frequency and population dynamics of killer viruses. A nonautonomous variant of one of the viruses encodes a killer toxin and antitoxin, so that yeast cells with this viral variant kill those without. What is the frequency of this variant among the natural isolates? If populations are polymorphic, how are the two types arranged spatially?

5) What is the frequency of each of these parasites in natural populations, and is the presence of any one correlated with the presence/absence of any other (this would be suggestive of interactions among the parasites).

"MacLean, Craig" <c.maclean@imperial.ac.uk>

Mainz Germany MolEvolPhylogeography

A position for a Ph.D. student within a project co-financed by the German Science Foundation (DFG) and the Austrian Science Foundation (FWF) is available at the Institut für Spezielle Botanik und Botanischer Garten, Johannes Gutenberg-Universität Mainz in Germany. The preferred starting date would be February, 1st, 2006.

The project investigates the evolution of nuclear markers in different groups of Veronica with different breeding system and evolutionary history. One of the target genes is a gene involved in the self-incompatibility reaction. The results will also be used in a phylogeographical study and compared to complimentary multilocus data generated by another member of the lab group. The studies will be guided by Dr. Dirk Albach in Mainz and Prof. Manfred A. Fischer in Vienna.

Applicants should have experience in molecular techniques and interest in evolutionary questions. Experience with cloning and sequencing nuclear genes is especially welcome.

Please send application including CV and names and address of two referees by mail or e-mail to Dr. Dirk Albach, Institut für Spezielle Botanik und Botanischer Garten, Johannes Gutenberg-Universität Mainz, 55099 Mainz (or albach@uni-mainz.de). Use the same address if you have further questions. Deadline is December, 23rd, 2005.

– Dr. Dirk Albach Institut für Spezielle Botanik Johannes Gutenberg-Universität Mainz Bentzelweg 9b 55099 Mainz

Tel.: +49 (0)6131 3923169 Fax.: +49 (0)6131 3923524

albach@gmx.net

MaxPlanckBerlin ComputationalBiol

Dear colleague,

the International Max Planck Research School for Computational Biology and Scientific Computing,

a joint graduate program of the Free University of Berlin and the Max Planck Institute for Molecular Genetics, Berlin, invites applications for a PhD program.

The PhD program is designed as a 3-year program starting in autumn 2006 and is open for international students.

The closing date for applications is February 28, 2006.

We would be grateful if you could communicate the announcement to interested students. A poster can be downloaded from

http://www.imprs-cbsc.mpg.de/download/-poster2006.pdf For further details and the application procedure, please visit

http://www.imprs-cbsc.mpg.de Thanks for your efforts,

the IMPRS-CBSC team

International Max Planck Research School for Computational Biology and Scientific Computing (IMPRS-CBSC) c/o Hannes Luz Max Planck Institute for Molecular Genetics | Tel: +49 30 8413 - 1154 Computational Molecular Biology | Fax: +49 30 8413 - 1152 Ihnestrasse 73 | Email: luz@molgen.mpg.de D-14195 Berlin, Germany | www.imprs-cbsc.mpg.de luz@molgen.mpg.de

NCStateU AppliedEvolBiol

NCStateAppliedEvolBiol

Research on the use of transgenic mosquitoes for decreasing the prevalence of dengue virus diseases in developing countries.

We are looking for a PhD student who is interested in conducting research aimed at driving anti-pathogen genes (refractoriness) into mosquito populations. The main emphasis of the student's research can be in the areas of 1) estimating ecological parameters in mosquito life histories that will impact the spread of anti-pathogen transgenes, 2) building population genetics models of gene drive mechanisms, 3) estimating mosquito population structure through use of molecular genetic approaches, or could work on a project that combines two or more of the above areas. The student could either become a member of the Entomology or the Genetics Department and North Carolina State University.

Our lab is funded by NIH and the Gates Foundation and is part of an interdisciplinary group composed of mosquito ecologists, geneticists, disease epidemiologists, molecular biologists, ethicists, and scientists from disease-endemic countries, all working to develop novel transgenic strategies for disease reduction. The student in this position will focus on a specific project but will also interact with members of this team and thereby acquire a broad understanding of the challenges facing scientists who want to move their research from the lab bench all the way to successful implementation.

An overview of this area of research and an entry point to the literature can be found in

"Gould, F., and P. Schliekelman. 2004. Population genetics of autocidal control and strain replacement. Ann. Rev. Entomol. 49: 193-217".

North Carolina State University is a leading research institution with a strong commitment to the study of entomology and genetics. The University is situated in Raleigh, NC and is within 30 miles of Duke University, UNC-Chapel Hill, NIEHS, an EPA research unit, and the Research Triangle Park. NC State University is an equal opportunity and affirmative action employer.

Send inquiries to Fred_Gould@NCSU.edu

NCStateU MothEvol

NCStateMolEvolBiol

Evolution of Sexual Communication Systems in Moths

Background Information: Most night-flying moth species locate mates through production of, and response to, a very precise blend of two or more volatile chemical compounds. Within a population, females with atypical blends have been shown to be less attractive to males than females with the population's common blend. Similarly, rare males that respond to atypical blends have been found to be at a disadvantage in finding mates. The genes that control pheromone blend ratios have never been found to be linked to, or affect male response, so mutations that cause changes in each of the two components of communication are expected to arise independently. On a simple theoretical level, this type of sexual communication system is expected to be evolutionarily constrained because an individual with a mutation leading to an altered blend or response will be selected against, when rare. Even if the selective disadvantage to rare individuals with alleles for novel signals or responses is minimal, mass selection is not expected to increase their frequency in the population. Based on these assumptions it is difficult to account for the great diversification of chemical mixtures used in mate communication by over 10,000 moth species. We are investigating a number of potential evolutionary mechanisms that could have resulted in this diversification by dissecting the genetic underpinnings of selective mating in moths.

We are working with two sympatric moth species (Heliothis virescens and Heliothis subflexa) that have very distinct sex pheromone blends, do not mate in the wild, but can be induced to mate in the lab. We have mapped a number of Quantitative Trait Loci (QTL) that control production of specific female sex pheromone components and male response to these components. We have moved two specific QTL between species and tested their impacts on mating in the field. We have also identified a number of candidate genes that appear to be involved in male response to specific pheromone components.

We are now in a good position to test candidate genes and to determine the genetic and molecular basis for differences between the sexual communication systems of these two moth species. We are looking for a PhD student who has basic knowledge of molecular techniques and wants to use these techniques to answer questions about insect evolution.

North Carolina State University is a leading research institution with a strong commitment to the study of entomology and genetics. The University is situated in Raleigh, NC and is within 30 miles of Duke University, UNC-Chapel Hill, NIEHS, an EPA research unit, and the Research Triangle Park.

For more details about our lab see: http://-www4.ncsu.edu:8030/%7Efgould/

The successful applicant will participate in the interdepartmental Keck Program in Behavior Biology—http://www.cals.ncsu.edu/beh_bio/index.html Send Letters of inquiry to: Fred_Gould@NCSU.edu

PurdueU EvolGenetics

Graduate Assistantships at Purdue University

A Ph.D. position(s) in evolutionary genetics is available beginning in the fall of 2006. Strong molecular and/or analytical skills are desired. The successful applicant(s) will play an integral role in an NSF-funded project studying both natural and sexual selection on major histocompatibility complex (MHC) genes in Ambystomatid salamanders. Potential research topics on MHC genes include their role in mate choice, patterns of gene expression, and/or immunology. For more information, see http:/-/www.agriculture.purdue.edu/fnr/html/faculty/-DeWoody/DeWoodyweb/in dex.html or contact Andrew DeWoody in the Department of Forestry & Natural Resources, Purdue University, West Lafayette, IN 47907-1159 (dewoody@purdue.edu). Admission can be through the academic department or through the interdisciplinary Molecular Evolutionary Genetics training group (see http://www.gradschool.purdue.edu/-PULSe/indexNoFlash.cfm). Either way, Ph.D. assistantships are funded at ~$20,000 per year plus a substantial waiver of tuition & fees. The cost of living in West Lafayette is low, and we are only an hour from Indianapolis and two hours from Chicago. Motivated applicants should submit a short letter of interest, including cumulative GPA, GRE scores, and contact information for three references. Formal applications must be received by January 10, 2006 to be considered, but informal inquiries are welcome beforehand. Women and minorities are encouraged to apply. Purdue University is an equal opportunity affirmative action employer.

dewoody@purdue.edu

SUNY StonyBrook EvolEcol

The plant evolutionary ecology lab at SUNY-Stony Brook is seeking a graduate student interested in any aspect of research covered by the lab (see http://-www.genotypebyenvironment.org). This includes phenotypic plasticity, the evolutionary ecology of invasive species, questions related to epigenetic inheritance, and conceptual issues in the philosophy of biology.

The Department of Ecology & Evolution at Stony Brook (http://life.bio.sunysb.edu/ee/) is located on Long Island, NY, a beautiful setting in an area near New York City and its countless cultural attractions.

For more information, please contact Massimo Pigliucci (mailto:massimo@life.bio.sunysb.edu)

– Prof. Massimo Pigliucci Dept. of Ecology & Evolution SUNY Stony Brook, NY 11794-5245 phone 631-632-1097, fax 7626 http://www.genotypebyenvironment.org http://www.rationallyspeaking.org http://-www.rationallyspeaking.blogspot.com "Truth springs from argument amongst friends." -David Hume

massimo@life.bio.sunysb.edu

UArkansas EcolEvolBiology

Ph.D. Fellowships in ecology and evolutionary biology, University of Arkansas

Graduate fellowships are available to qualified applicants for $20-30,000/yr in the Department of Biological Sciences, University of Arkansas, Fayetteville. Details are available at http:// biology.uark.edu/docfellow.html. The deadline for Fall 2006 admission is January 15, 2006.

E&E faculty and their interests include:

Steven J. Beaupre, Physiological ecology

Arthur V. Brown, Stream ecology

William J. Etges, Population biology, evolution, speciation

John L. Gentry, Plant taxonomy, Director of the Herbarium

Gary R. Huxel, Theoretical, food web, and landscape ecology

Douglas A. James, Ornithology, ecology

David R. Krementz, Wildlife ecology and management, biometrics

Daniel D. Magoulik, Fisheries and aquatic ecology, conservation biology

Cynthia L. Sagers, Evolutionary ecology, plant-insect interactions

Jeffrey Silberman, Molecular evolution, systematics in single-celled eukaryotes

Kimberly G. Smith, Community ecology, avian ecology

Frederick W. Spiegel, Mycology, systematics

Steven L. Stephenson, Community ecology, biogeography, mycology

James M. Walker, Herpetology, ecology

Susan Ziegler, Aquatic microbial ecology, biogeochemistry

The department, degree requirements, faculty contact information, facilities, and life in the Ozarks are described on our websites http://biology.uark.edu/ and http://biology.uark.edu/ Please contact William J. Etges (wetges@uark.edu) or other faculty listed above for details.

William J. Etges Department of Biological Sciences SCEN 632 University of Arkansas Fayetteville, AR 72701 USA wetges@uark.edu http://comp.uark.edu/-˜wetges/wetges.html office: (479) 575-6358 lab: (479) 575-7437 FAX (479) 575-4010

"William J. Etges" <wetges@uark.edu>

UBath CrustaceanPhylogenetics

Full-time 3 year PhD position in crustacean phylogenetics, Department of Biology and Biochemistry, University of Bath, UK.

We are looking for a highly motivated student interested in participating in an integrative research project aimed at reconstructing the phylogeny of the Crustacea. Among the arthropods, the crustaceans hold special status as the morphologically and ecologically most di-

verse group. However, a consensus on their high level relationships remains elusive. Moreover, recent phylogenetic evidence hints at the possibility that the most species-rich arthropod group, the hexapods (including insects), has evolved from somewhere within the crustaceans. This project will simultaneously attempt to resolve the broad relationships within the Crustacea, and determine the phylogenetic position of the hexapods within the crustaceans. The student will mainly focus on generating and analysing a large molecular data set comprising multiple genes for a large and diverse sample of crustaceans and their close relatives. The accumulated data will be combined with published molecular evidence, as well as evidence from morphology and fossils. The project will provide all the essential practical and theoretical training necessary for the candidate to become a modern comparative biologist.

Candidates should have a degree in Biology, Biochemistry, or a closely related discipline. Excellent lab skills are essential.

The project will be supervised by dr. Matthew Wills (bssmaw@bath.ac.uk) and dr. Ronald Jenner (rj223@bath.ac.uk).

Those interested can send informal inquiries, or a cv with 2 references via e-mail or mail to Matthew Wills or Ronald Jenner at the Department of Biology and Biochemistry, University of Bath, Bath BA2 7AY, UK.

Application deadline is 16 January 2005.

– Dr Ronald A. Jenner Department of Biology and Biochemistry University of Bath Bath BA2 7AY United Kingdom

Tel (+ 44).1225.38.5116(office)/5416(lab) Fax (+ 44).1225.386779

http://palass.org/pages/ron/jenner.html Logical consequences are the scarecrows of fools and the beacons of wise men. - Thomas H. Huxley -

rj223@bath.ac.uk rj223@bath.ac.uk

UBritishColumbia MolEvol

A Graduate Assistantship (M. S. or Ph. D.) is available in the lab of Dr. Keith Adams at the University of British Columbia (UBC) in the area of plant molecular evolution and genomic evolution, starting September 2006. I am looking for a highly motivated graduate student to work with me on molecular evolution and gene expression in polyploid and hybrid plants. See my web page at http://www.botany.ubc.ca/people/adams.htm Informal inquiries about the research area are welcome (keitha@interchange.ubc.ca)

UBC has a strong and interactive group of evolutionary biologists (see http://www.zoology.ubc.ca/%7Eotto/-Evolution.html), including several at the Centre for Plant Research (http://www.ubcbotanicalgarden.org/-research) and Department of Botany (http://-www.botany.ubc.ca).

Candidates should have a strong undergraduate background in biology, and prior research experience with molecular techniques is desirable but not required. For more information contact Keith Adams at keitha@interchange.ubc.ca

Keith Adams Assistant Professor Centre for Plant Research and Botany Department University of British Columbia phone: 604-822-2355 email: keitha@interchange.ubc.ca

Keith Adams <keitha@interchange.ubc.ca>

UCLA EvolBiol

UCLA graduate studies in Ecology and Evolutionary Biology

The Department of Ecology and Evolutionary Biology at UCLA invites applications for graduate studies. The department has excellent support packages for Ph.D. students and outstanding opportunities for research within the department, university and UC system. Graduate students can take advantage of the University of California Natural Reserve System, the UCLA Center for Tropical Research, field courses through the Organization for Tropical Studies, and UC-MEXUS, which facilitates collaborative research in Mexico. We encourage interested students to email individual faculty members. For more information about the department, see http://www.eeb.ucla.edu/ The deadline for applications is December 15. On-line applications are available at: http://www.eeb.ucla.edu/-grad_onlineappl.php

---

Faculty in Ecol & Evol Biology include:

Priyanga Amarasekare - mathematical and spatial ecology Daniel Blumstein - evolution of behavior and conservation Donald Buth – population structure of lower vertebrates Peggy Fong – marine ecology of coastal

ecosystems Malcolm Gordon - ecophysiology of fishes Gregory Grether - evolution of coloration, sexual selection and phenotypic plasticity Henry Hespenheide – evolutionary ecology and biodiversity of tropical insects David Jacobs – evolution/development and paleobiology of invertebrates Glen MacDonald - geographic patterns of climatic variation and vegetation response Peter Narins – auditory behavior and neurophysiology Peter Nonacs – behavioral ecology and social evolution Philip Rundel - plant functional ecology of Mediterranean, desert, and tropical ecosystems Rebecca Shipe – marine phytoplankton ecology Thomas Smith – evolutionary ecology, speciation, and conservation of vertebrates Victoria Sork - molecular ecology and conservation genetics of plant populations Charles Taylor – population genetics and adaptation Blaire Van Valkenburgh – paleobiology and functional morphology of vertebrates Richard Vance – marine, theoretical, and restoration ecology Robert Wayne - evolutionary biology and conservation genetics of vertebrates Cheryl Ann Zimmer – population ecology of marine organisms Richard Zimmer – ecology and sensory biology of aquatic organisms

vlsork@ucla.edu

UEdinburgh EvolBiol

The Institute of Evolutionary Biology at the University of Edinburgh offers places for postgraduate research in a wide range of subjects. Financial support for up to four years is available for successful UK and overseas applicants. In particular, we have five Marie Curie Studentships for EU students, available for research on the genetics of complex traits. Available projects, research interests and contact details are listed at http://www.biology.ed.ac.uk/postgraduate/-positions2.php. Closing dates for most funding are in January 2006.

Nick Barton Institutes of Evolutionary Biology/Immunology and Infection Research University of Edinburgh

n.barton@ed.ac.uk n.barton@ed.ac.uk

UEdinburgh QuantGenet

PhD and MSc studies in Edinburgh

Marie Curie Early Stage Training Fellowships for Genomics and the Analysis of Complex Traits (GENACT)

Training fellowships for EU nationals to support MSc and PhD studies in Edinburgh under the GENACT programme are available to start in September 2006. Two fellowships are available for the taught MSc course in Quantitative Genetics and Genome Analysis (www.qgen.co.uk) and five PhD fellowships are available to support projects from supervisors based in the Institute of Evolutionary Biology (www.ieb.org.uk), and in the Divisions of Medical Genetics (www.mmc.med.ed.ac.uk), and Community Health Sciences (www.chs.med.ed.ac.uk), all in the University of Edinburgh; the MRC Human Genetics Unit in Edinburgh (www.hgu.mrc.ac.uk) and the Roslin Institute (www.hgu.mrc.ac.uk) located close to Edinburgh.

The PhD supervisors are:

Prof. N. Barton, IEB, University of Edinburgh (N.Barton AT ed.ac.uk)

Prof Stephen Bishop, Roslin Institute (stephen.bishop AT bbsrc.ac.uk)

Prof Harry Campbell, Public Health Sciences, University of Edinburgh (Harry.Campbell AT ed.ac.uk)

Prof Brian Charlesworth, IEB, University of Edinburgh (Brian.Charlesworth AT ed.ac.uk)

Prof Deborah Charlesworth, IEB, University of Edinburgh (Deborah.Charlesworth AT ed.ac.uk)

Prof Chris Haley, Roslin Institute (chris.haley AT bbsrc.ac.uk)

Prof Peter Keightley, IEB, University of Edinburgh (Peter.Keightley AT ed.ac.uk)

Dr Sara Knott, IEB, University of Edinburgh (S.Knott AT ed.ac.uk)

Dr Loeske Kruuk, IEB, University of Edinburgh (Loeske.Kruuk AT ed.ac.uk)

Prof Andrew Leigh Brown, IEB, University of Edinburgh (A.Leigh-Brown AT ed.ac.uk)

Prof Josephine Pemberton, IEB, University of Edinburgh (J.Pemberton AT ed.ac.uk)

Prof David Porteous, Molecular Medicine Centre, University of Edinburgh (David.Porteous AT ed.ac.uk)

Prof Alan Wright, MRC HGU, Edinburgh (Alan.Wright AT hgu.mrc.ac.uk)

For information on PhD projects see: http://-homepages.ed.ac.uk/eang09/MCwebpage.htm

PhD applicants should contact one of the named supervisors directly and send them a CV and e-mail addresses of 2 referees as soon as possible.

Information and application details for the MSc course can be found at www.qgen.co.uk.

In accordance with Marie Curie mobility regulations, these fellowships are available to nationals of all member states of the EU and Associated Countries other than the UK.

Andrew J. Leigh Brown Professor of Evolutionary Genetics University of Edinburgh Institute of Evolutionary Biology School of Biological Sciences Ashworth Building West Mains Road Edinburgh EH9 3JT Scotland Tel: +44-131-650-5523 FAX: +44-131-650-6564

A.Leigh-Brown "AT" ed.ac.uk A.Leigh-Brown "AT" ed.ac.uk

ULeeds BoneEatingWorm

PhD Opportunity

Whale bone taphonomy: burrows, borings and Osedax

NERC - CASE award with The Natural History Museum, London

Dr. Crispin Little, School of Earth and Environment, University of Leeds Dr. Adrian Glover, Department of Zoology, The Natural History Museum, London

Background. When whales die, they sink to the seafloor, creating an enormous point-source of organic enrichment and food for benthic scavenging organisms. Research using both natural whale-falls' and implanted remains of dead specimens has highlighted the diversity of fauna that colonizes these remains, which includes both whale-fall specialists and organisms that are also associated with chemosynthetic environments such as hydrothermal vents and seeps (Smith & Baco 2003; Rouse et al. 2004; Glover et al. 2005).

The project. This PhD will focus on the recently discovered whale- fall endemic genus Osedax, a soft-bodied polychaete worm that has been described from modern whale-fall communities (Rouse et al. 2004; Glover et al. 2005). This bizarre animal has no gut as an adult but grows a system of root-like tubes into freshly exposed whale bone by an unknown process to 'mine' lipids, which are broken down by the intracellular symbionts inside the worm. Evidence from molecular genetics suggests that Osedax arose at least 40 million years ago, in the late Eocene (Rouse et al. 2004). The principal aim of the project is to determine the nature of the Osedax burrow, and to use this information to investigate the presence of Osedax in known fossilized whale-falls (Amano & Little 2005). Additional aims are to investigate the method of burrowing using live specimens held in aquaria, and to determine the organism responsible for microborings in modern and ancient whale bones. The project will involve oceanographic and palaeontological fieldwork in Sweden, UK, USA and Japan.

The candidate. The project is open to candidates with a good first degree in marine biology, oceanography, zoology or palaeontology with a strong biological background. The location is flexible, but it is anticipated that project time will be split 50/50 between institutions. Further details and how to apply. Please visit the University of Leeds website for details on how to apply for this PhD. http://-earth.leeds.ac.uk/postgrads/phd/index.htm

References Amano K, Little CTS (2005) Miocene whale-fall community from Hokkaido, northern Japan. Palaeogeography Palaeoclimatology Palaeoecology 215:345-356. Glover AG, Källström B, Smith CR, Dahlgren TG (2005) World-wide whale worms? A new species of Osedax from the shallow north Atlantic. Proceedings of The Royal Society B Rouse GW, Goffredi SK, Vrijenhoek RC (2004) Osedax: Bone-eating marine worms with dwarf males. Science 305:668-671 Smith CR, Baco AR (2003) Ecology of whale falls at the deep-sea floor. Oceanography and Marine Biology: An Annual Review 41:311-354

Dr Adrian Glover Zoology Department The Natural History Museum Cromwell Rd., London SW7 5BD, U.K

+44 (0)20 7942 5056 (office) +44 (0)77 666 484 40 (mobile)

http://homepage.mac.com/adrianglover
a.glover@nhm.ac.uk

UManchester Evol

Fully-funded PhD and MRes Studentships for September 2006 The University of Manchester Faculty of Life Sciences

As advertised in the New Scientist <http://www.newscientistjobs.com/-

viewjob.action?job.id=eur4779&index=2>, a number of funded PhD and MRes Studentships are available in the University of Manchester's Faculty of Life Sciences for eligible candidates starting in September 2006.

More than 200 projects are offered across the breadth of the research strengths within the Faculty and Priority Studentships are offered in the following areas of Ecology, Evolution and Development:

Dr C Bergman Comparative genomics and bioinformatics of non-coding DNA sequences <http://-tinyurl.com/8rs6x> Dr R Preziosi Community genetics and ecological interactions <http://tinyurl.com/-8e5rf>

Dr P Kover Genome-wide response to selection in A. thaliana <http://tinyurl.com/ 86t3n>

Dr J Wolf Quantitative genetics of social evolution <http://tinyurl.com/9hle8> Dr C Thompson Conflict, cooperation and cell fate choice during multicellular development <http://tinyurl.com/8gub4> The University of Manchester is world-class institution recently named the UK 'Higher Education Institution of the Year' by the Times Higher Awards 2005 <http://www.thes.co.uk/Awards/2005/> for the successful merger between the UMIST and the Victoria University of Manchester. The Faculty of Life Sciences is one of the largest and most successful unified research and teaching organisations of its kind in Europe, offering a vibrant and interactive research environment, supported by an innovative and highly acclaimed Graduate Training Programme. Research in Ecology, Evolution and Development is conducted in several research themes, and will be strongly represented in the newly created Centre for the Analysis of Biological Complexity (CABC) <http://tinyurl.com/-ck2v4> . Please visit the following website for more information <www.manchester.ac.uk/ls/postgraduate/-studentships> An Open Day for prospective students by invitation only will be held on 11 January 2006. The closing date for applications and two letters of reference is Friday, 16 December 2005. Candidates are expected to have a 2-1 or higher.

Application forms are available to download at <www.manchester.ac.uk/-ls/postgraduate/howtoapply/>

Please return to: The Graduate Office 2.17 Stopford Building The University of Manchester Oxford Road Manchester M13 9PT UK

Tel: +44 (0)161 275 5608 Fax:+44 (0)161 275 5657 E-mail: pg.lifesciences@manchester.ac.uk

Casey Bergman <casey.bergman@manchester.ac.uk> Richard Preziosi <richard.preziosi@manchester.ac.uk> Paula Kover <paula.x.kover@manchester.ac.uk> Jason Wolf <wolf@manchester.ac.uk> Chris Thompson <christopher.thompson@manchester.ac.uk>

casey.bergman@manchester.ac.uk
casey.bergman@manchester.ac.uk

UMelbourne PopGenetSnails

PhD Position in population genetics, The University of Melbourne, Department of Genetics, Parkville, Australia

Mediterranean white and conical snails (Cernuella virgata, Theba pisana and Cochlicella spp.) are significant pests of grain crops in coastal regions of southern Australia. Existing control methods, including burning of stubble prior to sowing crops, cabling to dislodge snails from aestivation sites, biological control (parasitoid of conical snails only) and chemical control have been only partially successful. A method of snail control that reduces our reliance on chemical pesticides and is species-specific would be highly desirable. The current project will investigate the genetic structure of the pest snail populations and reproductive strategy, in order to determine the suitability for future genetic control methods. The project is a joint venture between CSIRO, The University of Melbourne and the Grains Research and Development Corporation. The PhD student will be based at the University of Melbourne Department of Genetics and will receive training in field work, molecular techniques and population genetics. The student will be required to undertake field work in South Australia and this necessitates a valid Drivers Licence. Applicants will have a bachelorâs degree with honours in biological science (specifically genetics). This is a full-time scholarship with a maximum of 3 years funding available, contingent on satisfactory progress. The stipend is valued at AUD$25,000 per annum. To obtain further information contact Dr Belinda Appleton (b.appleton@unimelb.edu.au) or Dr Rod Mahon (Rod.Mahon@csiro.au) Applications including a curriculum vitae citing relevant studies and/or experience, a short statement of research interests, the names and addresses of three professional referees, and a copy of an official academic record/transcript should be forwarded as soon as possible to Dr Belinda Appleton, Department of Genetics, The University of Melbourne, Parkville, Victoria, Australia, 3010 or via email

b.appleton@unimelb.edu.au. Closing date for applications: Monday 19th December 2005.

b.appleton@unimelb.edu.au
b.appleton@unimelb.edu.au

UNorthCarolinaCH EvolGenetics

Graduate Positions in Evolutionary Genetics at the University of North Carolina, Chapel Hill.

The Department of Biology at UNC-CH has recently added a number of new faculty in the area of evolutionary genetics (and other areas of evolutionary biology) and we encourage applications for graduate study next fall.

Evolutionary genetics lies at the interface of molecular biology and organismal biology. Those interested in such an interdisciplinary approach can pursue research in multiple different laboratories spanning these techniques. See the following web site detailing this program interface and links to the faculty:

http://www.bio.unc.edu/graduate/interdiscipline.htm
Evolutionary genetics faculty at UNC-CH include:

Christina Burch-Evolutionary genetics, experimental studies of evolution

Jeff Dangl-Evolutionary genetics of disease resistance

Sara Grant- Evolution of virulence strategies in bacterial plant pathogens

Corbin Jones- Evolutionary Genetics and Genomics

Todd Vision- Computational genetics, genome evolution and the architecture of complex traits

Chris Willett- Population genetics, genetics of speciation

At UNC-CH we have a strong program overall in the general area of evolutionary biology, including the following additional faculty (link: http://-www.bio.unc.edu/graduate/EEOB/evolution.html):

Sabrina Burmeister -Neuroethology of animal communication, social control of reproduction.

Alan Feduccia -Evolutionary biology; avian evolution, paleontology, and systematics.

Patricia G. Gensel -Paleobotany (palynology); plant morphology, evolution.

Joel G. Kingsolver -Evolutionary biology, population ecology and functional biology of insects.

David W. Pfennig -Evolutionary Biology and Ecology.

Karin Pfennig -Ecology, Behaviour, and Evolution

Maria Servedio -evolutionary theory, theoretical studies of behavior and speciation

Keith Sockman -Neural, physiological, and behavioral ecology.

R. Haven Wiley -Animal behavior, especially communication and social organization.

cwillett@ucsd.edu

UNotreDame IGERT

NSF-supported PhD Fellowships Available *University of Notre Dame*

The University of Notre Dame announces a new Integrative Graduate Education Research and Training program starting in Fall 2006 funded by the National Science Foundation. The program will study Global Linkages of Biology, the Environment and Society ("GLOBES") with the goal of integrating Notre Dame faculty and graduate students across the biological and social sciences in a team-based approach to solving human and environmental heath problems. The program will support 20 Ph.D. students - each at a stipend level of $30,000 per year, with complete tuition remission, as well as a computer and ancillary research supplies. For more information about the GLOBES program and how to apply, see our web site at <http://globes.nd.edu> and contact program director Jeffrey Feder (Dept. Biological Sciences, Univ. of Notre Dame, Notre Dame, IN, USA, 46556-0369, tel: 574-631-4159, <feder.2@nd.edu>).We are now accepting applications for Fall 2006, which can be submitted electronically through the ND Graduate School at <http://graduateschool.nd.edu/html >. Please note in your general statement of interest essay in the application that you would like to be considered for admission into the GLOBES program. – Hope Hollocher Associate Professor Department of Biological Sciences Galvin Life Sciences University of Notre Dame Notre Dame, IN 46556

Tel. 574-631-4569 FAX 574-631-7413 e-mail: hope.hollocher.1@nd.edu

hholloch@nd.edu hholloch@nd.edu

UTennessee EvolBiol

Graduate studentships in Ecology and Evolutionary Biology University of Tennessee Knoxville

We are seeking highly motivated students interested in evolutionary biology. The EEB department is in an exciting phase of expansion with the addition of several new faculty to our dynamic group in Evolutionary biology. We offer generous graduate student support at both MS and PhD levels, a highly collegial and interactive atmosphere, excellent computational facilities, proximity to the Great Smoky Mountains National Park and other outstanding natural areas, and extensive Herbarium and Fish collections. Our Mathematical EEB group is exceptionally strong with many productive collaborations with empiricists. See http://eeb.bio.utk.edu Faculty:

Chris Boake (cboake@utk.edu http://eeb.bio.utk.edu/boake.asp) Sexual selection, speciation through sexual selection, animal communication, behavior genetics, genotype-by-environment interaction for behavior

Gordon Burghardt (gburghar@utk.edu http://eeb.bio.utk.edu/ burghardt.asp) Development and comparative evolution of behavior with emphasis on natricine snakes but also turtles and monitor lizards

Marguerite Butler (mabutler@utk.edu http://eeb.bio.utk.edu/ butler.asp) Adaptation, evolution of sexual dimorphism, phylogenetic comparative methods, functional morphology, biomechanics, and life history evolution

Ben Fitzpatrick (benfitz@utk.edu http://www.eeb.bio.utk.edu/ fitzpatrick.asp) Population genetics, speciation, local adaptation, hybrid zones, and functional ecology

James Fordyce (jfordyce@utk.edu http://eeb.bio.utk.edu/fordyce.asp) Plant-insect interactions, local adaptation and coevolution, chemical ecology, life history evolution, geographic variation in ecological interactions

Sergey Gavrilets (gavrila@tiem.utk.edu http://www.tiem.utk.edu/ ~gavrila) Theoretical evolutionary biology, speciation, sexual conflict, coevolution, macroevolution, hybrid zones, phenotypic plasticity, quantitative traits, cultural evolution

Mike Gilchrist (mikeg@utk.edu http://eeb.bio.utk.edu/gilchrist.asp) Viral & immune response co/evolution, life-history strategies, condon usage bias, and bioinformatics

Karen Hughes (khughes@utk.edu http://eeb.bio.utk.edu/hughes.asp) Vicariance biogeography in fungi, Evolution of basidiomycete fungi using molecular tools, the fungal All Taxa Biodiversity Inventory in the Great Smoky Mountains National Park

Gary McCracken (gmccrack@utk.edu http://eeb.bio.utk.edu/ mccracken.asp) Ecological and evolutionary genetics, population biology, behavior. Current research concerns feeding behavior and the effects of bats on ecosystem function, and the ecological influences on rabies infections in bats.

Susan Riechert (sriecher@utk.edu http://eeb.bio.utk.edu/riechert.asp) Behavioral ecology, evolutionary game theory, gene flow limitation of local adaptation. Current work includes quantitative genetic studies of social and life history traits and latitudinal studies of social structure in spider systems.

Ed Schilling (eschilling@utk.edu http://eeb.bio.utk.edu/ schilling.asp) Higher plant systematics with a focus on members of the sunflower family (Asteraceae)

Dan Simberloff (dsimberloff@utk.edu http://eeb.bio.utk.edu/ simberloff.asp) Evolution and coevolution of introduced and native species following invasion, morphological evolution of vertebrates in response to varying community membership, conservation biology

Randy Small (rsmall@utk.edu http://web.utk.edu/~rsmall) Plant molecular systematics and molecular evolution, relative utility of different data sets for phylogenetics, polyploidy and speciation.

Joe Williams (joewill@utk.edu http://eeb.bio.utk.edu/williams.asp) Plant reproductive evolution, embryology, evolution of development, speciation and hybridization, polyploidy, and population genetics

Contact faculty directly with a letter of interest and C.V. Deadline for application is Jan. 6, 2005. Applications must be made to both the department and the graduate school. Please see http://eeb.bio.utk.edu/gradappl.asp

------ Marguerite A. Butler Department of Ecology and Evolutionary Biology University of Tennessee 569 Dabney Hall

— / —

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

VanderbiltU EcolEvol

GRADUATE STUDIES IN ECOLOGY AND EVOLUTION AT VANDERBILT

Dear colleagues and prospective students,

The Department of Biological Sciences at Vanderbilt University seeks interested and highly motivated graduate students to join a group of laboratories with complementary research interests focusing on ecological and genetic mechanisms of evolutionary diversification. Ongoing research investigates all stages of diversification (population differentiation, reproductive isolation, speciation, phylogenetic radiation) and several fundamental ecological and evolutionary processes (adaptation, ecological specialization, symbiosis, social interactions).

Online application to the graduate program is free.

Our group occupies a new (2002) building complete with our own DNA sequencing facility, numerous environmentally controlled rooms, and an adjoining state-of- the-art greenhouse. Vanderbilt researchers enjoy the participation of excellent undergraduates and the resources of a thriving medical center. Our beautiful campus is located in the heart of Nashville, a friendly and inexpensive city situated amidst the lush rolling hills of biologically diverse middle Tennessee. Graduate students receive generous stipends and are trained in a highly interactive scientific community.

Ecology & Evolution faculty, research interests are listed below (** = faculty most actively recruiting new graduate students):

**Patrick Abbot (patrick.abbot@vanderbilt.edu) social evolution, symbioses, molecular evolutionary genetics in insects and microbes

**John Burke (john.m.burke@vanderbilt.edu) molecular evolutionary genetics, adaptive trait evolution, plant domestication, hybridization and speciation

Dan Funk (daniel.j.funk@vanderbilt.edu) ecological specialization and speciation, phylogenetics, herbivorous insect biology

Manuel Leal (manuel.leal@vanderbilt.edu) animal communication and mate choice, predator-prey interactions, and sensory ecology in lizards

**Dave McCauley (david.e.mccauley@vanderbilt.edu) population biology, population structure, local adaptation in plants and insects

For further information on research and graduate study at Vanderbilt, please consult our departmental web page at: http://sitemason.vanderbilt.edu/biosci. Specific questions can be directed to any of the above faculty.

daniel.j.funk@Vanderbilt.Edu
daniel.j.funk@Vanderbilt.Edu

VanderbiltU EcolEvol 2

GRADUATE STUDIES IN ECOLOGY AND EVOLUTION AT VANDERBILT

Dear colleagues and prospective students,

The Department of Biological Sciences at Vanderbilt University seeks interested and highly motivated graduate students to join a group of laboratories with complementary research interests focusing on ecological and genetic mechanisms of evolutionary diversification. Ongoing research investigates all stages of diversification (population differentiation, reproductive isolation, speciation, phylogenetic radiation) and several fundamental ecological and evolutionary processes (adaptation, ecological specialization, symbiosis, social interactions).

Online application to the graduate program is free.

Our group occupies a new (2002) building complete with our own DNA sequencing facility, numerous environmentally controlled rooms, and an adjoining state-of- the-art greenhouse. Vanderbilt researchers enjoy the participation of excellent undergraduates and the resources of a thriving medical center. Our beautiful campus is located in the heart of Nashville, a friendly and inexpensive city situated amidst the lush rolling hills of biologically diverse middle Tennessee. Graduate students receive generous stipends and are trained in a highly interactive scientific community.

Ecology & Evolution faculty, research interests are listed below (** faculty most actively recruiting new graduate students):

**Patrick Abbot (patrick.abbot@vanderbilt.edu) social evolution, symbioses, molecular evolutionary genetics in insects and microbes

**John Burke (john.m.burke@vanderbilt.edu) molecular evolutionary genetics, adaptive trait evolution,

plant domestication, hybridization and speciation

Dan Funk (daniel.j.funk@vanderbilt.edu) ecological specialization and speciation, phylogenetics, herbivorous insect biology

Manuel Leal (manuel.leal@vanderbilt.edu) animal communication and mate choice, predator-prey interactions, and sensory ecology in lizards

**Dave McCauley (david.e.mccauley@vanderbilt.edu) population biology, population structure, local adaptation in plants and insects

For further information on research and graduate study at Vanderbilt, please consult our departmental web page at: http://sitemason.vanderbilt.edu/biosci. Specific questions can be directed to any of the above faculty.

"Funk, Daniel J" <daniel.j.funk@Vanderbilt.Edu>

WashingtonStateU EvoDevo

Ph.D. Studentship Available at Washington State University to investigate the role of genes and hormones in the nutrition-dependent development of body size and sexual dimorphism in the stalk-eyed fly, Cyrtodiopsis dalmanni and sexual & male dimorphism in the dung beetle Onthophagus nigriventris. The student would work jointly on this EvoDevo project with Drs. Laura S. Corley at WSU and Douglas J. Emlen at the University of Montana. The Univ. of Montana is only a 4-hour drive from the WSU-Pullman campus. Research facilities at both institutions are state-of-the-art. Graduate students at WSU in the Department of Entomology receive research assistantships with competitive stipend. We encourage all students to apply but we particularly encourage women and minorities.

For further information, contact Laura Corley at 509 335 7907 or corley@wsu.edu. Information about the WSU Department of Entomology can be found at <http://entomology.wsu.edu/->http://entomology.wsu.edu/. Information about Drs. Corley & Emlen can be found at <http://entomology.wsu.edu/personal/-laura_corley/index.html>http://entomology.wsu.edu/-personal/laura_corley/index.html and <http://-biology.dbs.umt.edu/dbs/emlen/default.htm>http://-biology.dbs.umt.edu/dbs/emlen/default.htm . "Laura S. Corley" <corley@mail.wsu.edu>

Zurich EusocialBees

Doctoral Position in Behavioural and Molecular Ecology of Facultatively Eusocial Bees

The Department of Environmental Sciences (UWIS), ETH Zentrum, Zurich, Switzerland invites applications for the above post, available for three years from 1st January 2006 or shortly thereafter, to study behavioural and molecular ecology in Halictid bees. The project will be supervised by Drs Jaboury Ghazoul and Carlos Lopez-Vaamonde.

The aim of the project is to investigate the nesting behaviour of facultatively eusocial bees to ask questions about the extent of nest co-occupancy and the biological and environmental conditions under which this occurs, the benefits and costs of such behaviour, the fitness associated with alternative nesting strategies, and genetic relatedness among individuals within an aggregation and among nest sharers. Methods will include behavioural observations of marked individuals of natural colonies of Halictine bees, manipulations of the composition of natural colonies, and typing of individuals at hypervariable microsatellite DNA loci.

Applicants should be highly-motivated researchers with ecological training and appropriate qualifications. Experience of social insect biology and/or analysis of microsatellite DNA loci would be an advantage. The scientific working language is English of which good spoken and written ability is required. Knowledge of German and/or would be advantageous but not necessary.

The work will be based at ETH Zurich, Switzerland under the supervision of Drs Jaboury Ghazoul and Carlos Lopez-Vaamonde. Jaboury Ghazoul is professor of Ecosystem Management at ETH Zurich. Carlos Lopez-Vaamonde is researcher at the Forestry Zoology Unit, INRA Orleans, France. Extended periods of fieldwork will be necessary at sites in France and Switzerland.

ETH Zurich (www.ethz.ch/index_EN) and the Department of Environmental Sciences (www.env.ethz.ch/-index_EN) provide excellent facilities and good links with local and international institutions. It is consistently ranked among the top universities in the world. Zurich is a cosmopolitan city with one of the highest ratings for quality of life and good international connections.

A PhD salary of between CHF 37,000-40,000 is avail-

able for three years. A short (~1 page) cover letter describing motivation for undertaking PhD research and research interests plus a short (~2 page) CV including qualifications, relevant experience and other information should be sent to Dr Jaboury Ghazoul (jaboury.ghazoul@env.ethz.ch). Please also include full contact details of at least two referees.

Closing date for applications: Wednesday, 30 November 2005

Contact address: Prof Jaboury Ghazoul ETH Zentrum CHN Universitatsstrasse 16 Zurich CH-8092 Switzerland jaboury.ghazoul@env.ethz.ch

Dr. Carlos LOPEZ-VAAMONDE INRA-Orleans Forestry Zoology Unit Ardon- BP 20619 F- 45166 OLIVET FRANCE Tel: + 33 238417861 Fax: + 33 238417879 carlos.lopez-vaamonde@orleans.inra.fr

Carlos Lopez-Vaamonde <Carlos.Lopez-Vaamonde@orleans.inra.fr>

Jobs

Berne NatHistMuseum

The Natural History Museum in Berne, Switzerland, is looking for a

CURATOR as head of the vertebrate division.

This is a full-time position with an anticipated starting date of 1 October 2006 (or by agreement). Research on vertebrates will make up approx. 50% of the job.

The position includes the following duties: Leading the vertebrate division, curating the collection of recent vertebrates, research on vertebrates, participation in exhibitions and public relations work, and collaborations with the University of Berne.

Requirements: PhD in Zoology or Paleontology; an active research programme; contacts to universities, other museums, and professional associations; ability to inter-

act with interested amateurs. Preferrably less than 40 years of age.

The successful candidate is expected to learn German.

For details in German see: www.nmbe.ch/pdf/-konservator_wt_anforderungen.pdf For informal queries please contact: Prof. Dr. Marcel Guentert (marcel.guentert@nmbe.unibe.ch)

Please submit your application by December 15th, 2005 to: Naturhistorisches Museum der Burgergemeinde Bern, Direktion, Bernastrasse 15, CH-3005 Berne, Switzerland.

Lukas.Keller@zoolmus.unizh.ch
Lukas.Keller@zoolmus.unizh.ch

BrownU MolPhylogenetics

Brown University Assistant Professor - Molecular Phylogenetics

The Department of Ecology and Evolutionary Biology at Brown University seeks a plant evolutionary biologist using modern molecular phylogenetic methods to understand evolutionary mechanisms and organismal diversity. We particularly welcome applicants whose interests complement existing faculty strengths in evolutionary biology, ecology, and plant biology, as well as ongoing university initiatives in environmental change, genomics, and computational biology. Requirements include a Ph.D., a strong record of research excellence, and potential for excellence in teaching. The new hire will be expected to develop a strong, externally funded research program, teach courses such as phylogenetics or plant diversity, and contribute to graduate training.

To apply, please send a curriculum vitae, statement of research and teaching interests, and representative publications, and arrange to have 3 letters of recommendation sent to Johanna Schmitt, Chair, Molecular Phylogenetics Search Committee, Box G-W, Brown University, Providence, RI 02912. Applications received by 1 December 2005 will receive full consideration.. Brown University is an EEO/AA employer.

– Carol A. Casper Department Manager Ecology and Evolutionary Biology Brown University (401) 863-3324 Phone (401) 863-2166 Fax

Carol Casper <Carol_Casper@brown.edu>

BucknellU EvoDevo

Developmental Biologist, Bucknell University

Applications are invited for an entry-level, tenure-track Assistant Professor position beginning August 2006 in the Department of Biology at Bucknell University. Ph.D. required. Teaching responsibilities will include an advanced course in animal developmental biology, participation in an introductory level course for biology majors, a non-majors course to support the general education program, and supervision of undergraduate research. A cover letter, statements of teaching philosophy and research goals, curriculum vitae, and three letters of recommendation should be submitted to:

Mitchell Chernin, Ph.D. Chair, Biology Department Bucknell University Lewisburg, PA 17837 chernin@bucknell.edu Phone: 570-577-1124 FAX: 570-577-3537 http://www.bucknell.edu/department/-biology/ Review of applications will begin on November 7, 2005. The search will remain open until the position is filled. Bucknell University encourages applications from women and members of minority groups (EEO/AA).

Note - A letter and CV received before the deadline will insure consideration for this post.

sdjordan@bucknell.edu sdjordan@bucknell.edu

CalStatePomona EvolVertBiol

Evolutionary Biologiststs feel free to apply

VERTEBRATE BIOLOGIST TENURE-TRACK FACULTY POSITION

California State Polytechnic University, Pomona

DEPARTMENT: The Biological Sciences Department seeks a tenure-track assistant professor. Our 37-member Biological Sciences faculty offers Master and Bachelor programs to a total enrollment of 1200 students in Biology, Biotechnology, Botany, Environmental Biology, Microbiology, and Zoology. The Department faculty has opportunities to engage in cooperative teaching and research activities with other Colleges at

Cal Poly Pomona, as well as nearby institutions including City of Hope; Claremont Colleges; California Institute of Technology; California State University, Fullerton; California State University, Los Angeles; University of California, Los Angeles; University of California, Riverside; and University of California, Irvine. The faculty in this department has diverse expertise and is involved in a wide variety of both basic and applied research. A focus on teamwork and cooperative activities is well developed. For more information, see the Department website: http://www.csupomona.edu/~biology . POSITION DESCRIPTION: Tenure-track position begins Fall 2006. Candidates must have a strong commitment to excellence in teaching and research. Teaching responsibilities will include courses in herpetology, introductory zoology/biology, and development of a graduate-level course related to the individual's area of expertise. The teaching assignment may include contributions to courses in conservation biology. The department has traditionally maintained and seeks to continue relationships with state and federal management agencies (e.g. California Department of Fish and Game; USFWS), which provide opportunities for student research and employment. The successful candidate will combine excellence in teaching with an externally funded research program that will involve undergraduate and Master's students conducting field projects on the biology of terrestrial vertebrates. The applicant will be expected to assist in curriculum development, advise students, serve on department, college, and university committees, and engage in professional activities.

MINIMUM QUALIFICATIONS (Required & Preferred Education, Knowledge & Abilities, Experience): Ph.D. (from an accredited educational institution) in Biology, Zoology, or related field with a specialty in vertebrate biology is required. Previous college teaching and postdoctoral research experience are preferred. Applicants are expected to have demonstrated ability to be responsive to the educational equity goals of the university and its increasing ethnic diversity and international character.

CLOSING DATE and HOW TO APPLY: To be considered for a position, applicants are required to submit (1) curriculum vitae, (2) statement of teaching philosophy, (3) proposed plan of research, (4) reprints of three representative publications, and (5) the names and contact information of three references. Initial review of applications will begin January 16, 2005, and will continue until position is filled. Materials submitted by the candidate will be available for examination by all tenured and probationary faculty of the department. Official transcripts and three letters of reference will be required of all finalists.

Please submit application to: Chair, Vertebrate Biologist Search Committee Biological Sciences Department California State Polytechnic University, Pomona 3801 West Temple Avenue Pomona, CA 91768-4182 Tel.: (909) 869-4038 Fax: (909) 869-4078 E-mail: djmoriarty@csupomona.edu

Further information may be obtained by calling the Biological Sciences Department office at (909) 869-4037/4038. Our Fax number is (909) 869-4078.

THE UNIVERSITY: California State Polytechnic University, Pomona (Cal Poly Pomona) is one of 23 campuses in The California State University. It is located about 30 miles east of downtown Los Angeles and is part of one of the most dynamic economic and cultural regions in the country. Noted for its beautiful and historic 1,400-acre campus, once the Arabian horse ranch of cereal magnate W. K. Kellogg, the university currently has an ethnically diverse student population of 20,000 (with approximately 70% representing diverse ethnic groups). Students are enrolled in 65 undergraduate majors and 20 master's degree programs. There are approximately 1,100 faculty members. The University is committed to diversifying its faculty and staff to better serve its multicultural student body, and has made educational equity one of its highest priorities. For additional information about the university, please visit our website at http:// www.csupomona.edu/ .

— / —

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

DundeeScotland Bioinformatics

....

BIOINFORMATICS SYSTEMS & WEBSERVICES DEVELOPER

(Ref CB/1) Salary £26,780 - £31,186 plus benefits

This post, each up to 4 years in duration will form a team jointly managed with Biomathematics and Statistics Scotland (BioSS) that will collaborate with the Universities of Dundee, Edinburgh and Glasgow to develop the Scottish Bioinformatics Research Network (SBRN).

This post will support the development and integration of bioinformatics systems and webservices across

SEERAD funded institutes in collaboration with the university partners. The successful candidate will require knowledge, understanding and experience of computing systems, webservices and GRID technologies, ideally in a bioinformatics context. Experience in programming in Java and in Perl and/or Python as well as in XML technologies will be required. The post will involve liaison with comparable work at other Scottish universities and research institutes

....

BIOINFORMATICS SPECIALIST

(Ref CB/2) Salary £22,351 - £25,767 plus benefits

This post, each up to 4 years in duration will form a team jointly managed with Biomathematics and Statistics Scotland (BioSS) that will collaborate with the Universities of Dundee, Edinburgh and Glasgow to develop the Scottish Bioinformatics Research Network (SBRN).

The main role of this post is to develop and provide bioinformatics support and development to the SEERAD funded institutes in areas complementary to the existing provision within both BioSS and the institutes. It is anticipated that the main requirement will be for bioinformatics support and development in one or more of the following areas: Proteomics/Protein structure, Metabolomics and Genomics/Genotyping. The successful candidate will be expected to possess an appropriate combination of knowledge and skills in both the relevant biological domains and in RDMSs, programming and scripting.

....

Further information from:

Dr David Marshall (David.Marshall@scri.ac.uk)

The closing date for applications is Friday 18th Nov 2005. Covering letters & CVs, including at least 2 referees should be sent to:

Human Resources Office, Scottish Crop Research Institute, Invergowrie, DUNDEE DD2 5DA, Scotland, UK

The Institute is an equal opportunities employer and is grant-aided by the Scottish Executive Environment & Rural Affairs Department (SEERAD).

frank@bioss.ac.uk frank@bioss.ac.uk

GeorgeWashingtonU AnimalBehavior

FACULTY POSITION IN ANIMAL BEHAVIOR Tenure track Assistant Professor to begin summer 2006. We are seeking a biologist studying animal behavior within an evolutionary context, utilizing comparative and/or experimental approaches (study system open). The successful candidate will develop an externally funded research program that involves both undergraduate and graduate students and will teach animal behavior and a graduate or undergraduate course in their field. We are especially interested in applicants whose research area complements existing strengths in the department and in related programs. The research of the faculty in the department of Biology (<http://www.gwu.edu/~biology>www.gwu.edu/~biology) falls into three main areas: cell, molecular, and developmental biology; systematics and evolution; and ecology. The faculty of our graduate program in systematics and evolution (<http://www.gwu.edu/-~clade>www.gwu.edu/~clade) are involved in research utilizing and developing methodologies for comparative biology, and our graduate curriculum in this area is one of the department's strengths. This new faculty position will be part of a new interdisciplinary "theories of mind" research cluster that involves the departments of Biology, Anthropology, Psychology, Philosophy, Statistics, and Speech and Hearing Science. One of the goals of this multidisciplinary program is to contribute to our understanding of the biological and neurological determinants of behavior. In addition to an exciting on-campus research atmosphere, the Washington D.C. area is home to many academic and research institutions. Faculty and graduate students at George Washington University collaborate with colleagues and use research facilities and collections at the Smithsonian Institution's Natural History Museum, the National Zoo, the U.S. Department of Agriculture Research Laboratories, National Institutes of Health, World Wildlife Organization, Environmental Protection Agency, and the Nature Conservancy. Other facilities, such as the Library of Congress and National Library of Medicine, also facilitate our scientific research. Our University is located in downtown Washington D. C. (our building is four blocks west of the White House) and an excellent subway system makes commuting to these off-campus facilities easy and convenient. Review of applications begins November 14, 2005 and is ongoing until the position is filled. Send a letter of application, research statement, description of teaching experience and courses that might be taught to: Chair, Animal Behavior Search Committee The George Washington University Department of Biological Sciences 2023 G St. NW, Suite 340 Washington DC 20052 biology@gwu.edu

If you have any questions about this position, please

feel free to contact the Department Chair Dr. James Clark (jclark@gwu.edu; 202 994-6090).

– Sheri Church Department of Biological Sciences George Washington University

Sheri Church <schurch@gwu.edu>

GrandValleyStateU PlantSystematist

Plant Systematist - Assistant Professor Grand Valley State University, MI Botany (Systematics) - Assistant Professor of Biology. The Biology Department at Grand Valley State University invites applications for a tenure-track faculty position in botany to begin August 2006. Applicants must have a Ph.D in Botany or Biology with expertise in systematics or fields that use the tools of systematics (such as biogeography, etc.).

Teaching responsibilities include a course in systematic botany for undergraduates, introductory biology, and other botany courses such as ethnobotany and organismal and graduate courses. There will be opportunity for new course development in the candidate's area of expertise which enhances the undergraduate and graduate programs. Additional responsibilities include advising undergraduate and graduate students, serving on academic committees, engaging in scholarly activity, and performing community service. Preference will be given to candidates with excellent communication skills and who have demonstrated success in teaching and research involving undergraduate or graduate students.

Submit a complete application consisting of a letter of application, curriculum vitae, copies of transcripts, statements of teaching philosophy and research interests, and three letters of recommendation to Dr. Margaret Dietrich, Chair, Botany Search Committee, Department of Biology; Grand Valley State University; Allendale, MI 49401-9403. Phone: (616) 331-2816. Email: dietrima@gvsu.edu. Departmental web site: www.gvsu.edu/biology. Review of candidate files will begin November 21, 2005 with applications accepted until the position is filled. Grand Valley State University is an affirmative action, equal opportunity institution.

Margaret Dietrich Assistant Professor Biology Department Grand Valley State University Allendale, MI 49401

(616) 331-2816

dietrima@gvsu.edu dietrima@gvsu.edu

INRA Dijon WeedCommunities

Position annoucement (Short English version followed by French)

The French Institut National de la Recherche Agronomique (INRA = National Institute for Agronomic Research) is currently seeking to fill a permanent, full time research position in the unit of ≪ Biologie & Gestion des Adventices ≫ (Weed Biology and Management) located in Dijon, France. The position ("Directeur de Recherche", i.e. Research director) is similar in rank to a professor position, except it is a full-time research position (no teaching duties). This unit is the only one within INRA conducting researches in the areas of Ecology, Agronomy and Evolutionary Genetics of weed species and communities. The permanent staff comprises about 40 people (scientists, teachers and technical staff). INRA actually aims at recruiting a leading scientist in the area of Weed or Plant community Ecology. This leader is expected to set off and steer a multidisciplinary program bridging the gap between genetics of adaptation and community ecology. This program will be based upon the current extensive background in genetics and agronomy developed in the "Biologie & Gestion des Adventices" unit. However, outstanding candidates in Ecology, Population Genetics or Agronomy who feel they may contribute to bridge the gaps between disciplines are encouraged to apply.

Applicants should submit a curriculum vitae, a statement of research (and teaching activity, if any), selected reprints, and a proposal of research project for the offered position. All applicant materials should be received by 14th December 2005. So, Please note how soon the deadline is! Application procedure: some information on how to fill an application are given (unfortunately only available in French!) at the internet adress : http://www.inra.fr/drh/ita/-concours/docs/Devenir-DR2-2005.pdf Informations on salary : under http://www.inra.fr/ please click le_salaire_et_les_primes' Contact: Jacques Gasquez (33) 3 80 69 30 31 gasquez@dijon.inra.fr but you may also try Xavier Reboud (33) 3 80 69 31 84 reboud@dijon.inra.fr The complete advertisement is provided (in French) in the pdf file 'Profil DR2 SPE[1].pdf' at the following internet adress : under http://-

www.inra.fr/ ask 'poste_biologie_évolutive' in the quick search (= recherche rapide). The profile is attached to the first response in the list. Applications can be made in English.

L'INRA met au concours un poste permanent de Directeur de Recherche en ≪Biologie évolutive et Ecologie des Communautés Végétales des zones cultivées≫. Le profil est volontairement ouvert à l'interface entre écologie, agronomie et génétique des populations couvrant ainsi les principaux développements conduits au sein de l'UMR Biologie et Gestion des Adventices'. Il cherche cependant à renforcer les compétences en écologie. Située à Dijon, cette unité regroupe environ 40 personnes. Le poste à pourvoir vise à recruter une personne prête à animer une équipe de recherche transdisciplinaire. Aucune condition de nationalité n'est attachée à la candidature. Une description du profil est accessible au lien suivant.: sous http://www.inra.fr/- tapez poste_biologie_évolutive' dans l'onglet recherche rapide.

NB: Nous attirons votre attention sur les délais très courts à respecter impérativement. La date limite officielle de dépôt des candidatures à faire parvenir à la DRH de l'INRA est fixée au 14 Décembre 2005.

Xavier.Reboud@dijon.inra.fr

INRA France SeniorScientist

A permanent CR2 position in population genetics and ecology will be opened at the INRA, Research Unit UGAPF (Forage Crops Genetics Unit).

Research theme Grasslands are genetically complex structure. Various perennial or annual species may be present. In each grassland perennial species, a wide range of genetic variation is present and genetic changes are taking place, leading to changes of agronomic value as possibly generating environmental impacts. Grasslands are perennial stands but may be experimented and specially designed genetic populations may be constructed. Temporary grasslands are an adequate tool for study of grassland population genetics.

In order to understand the genetic changes taking place within grasslands swards, the objective of this new position is to strengthen work on population genetics applied to grasslands. The research program proposed for the new position will be to describe, understand and model demographic and genetic changes in perennial grasslands swards focussing on dominant grassland species (forage grasses and legumes) and taking into account competition within and among plant species, sexual reproduction and recruitment of seedlings. The candidate is expected to have a good backgroung in population genetics and ecology and interest in theoretical and modelling approaches.

Scientific environment The succesful candidate will work in close collaboration with the researchers involved in grasslands research in the Unit (3 molecular geneticists, 2 quantitative geneticists), will be integrated into the local network for studying grassland ecophysiology, environmental impact and production of grasslands (Ecophysiology Unit (7 scientists), Observatory for Research in Environment) and in collaborative programs (ANR Discover). The locally available technical resources include molecular biology lab, greenhouses and growth rooms, field experiments.

Full details on application procedure will appear on INRA web site (www.inra.fr) in late december 2005. It is anticipated that deadline for applications will be in late February 2006. Applications must include CV, detailed research achievements and a proposal of research project for the offered position.

Contact Dr Christian Huyghe Christian.Huyghe@lusignan.inra.fr Unité de Génétique et d'Amélioration des Plantes Fourragères INRA 86600 Lusignan France Tel: 05 49 55 60 26 (from abroad 33 5 49 55 60 26) Fax: 05 49 55 60 44 (from abroad 33 5 49 55 60 44)

Christian Huyghe <Christian.Huyghe@lusignan.inra.fr>

ImperialCollegeLondon PopulationBiology

IMPERIAL COLLEGE LONDON SILWOOD PARK

LECTURER/SENIOR LECTURER IN ECOLOGY/POPULATION BIOLOGY

Salary: Lecturer: £36,200 ? £43,950/Senior Lecturer: min £43,950.

We seek to appoint a permanent staff member who works in the broad area of ecology/population biology (ie including population, community or ecosystem issues using theoretical and/or experimental approaches; work on plant, animal or microbial systems; and pure

or applied problems). We are particularly interested in candidates who will bring new skills to the community of ecologists and population biologists at Silwood Park.

The appointment will be within the Division of Biology, an RAE 5* department in the Faculty of Life Sciences. The division includes the Ecology and Evolution Section and the NERC Centre for Population Biology, both of which are based at Imperial College?s Silwood Park campus where research is carried out on a wide range of topics in ecology, evolution and associated fields.

The successful applicant will have a PhD in a relevant subject and a strong research publication record. He or she will be expected to develop an independent and externally funded research programme, and to contribute to teaching at undergraduate and postgraduate levels. The appointment level will depend on experience and we will consider candidates who seek part-time positions.

For further information and application forms contact Mrs Diana Anderson at Division of Biology, Imperial College London, Silwood Park Campus, Ascot, Berks SL5 7PY (d.anderson@imperial.ac.uk).

Closing date: 16 January 2006.

Valuing diversity and committed to equality of opportunity

– Prof. Ian P. F. Owens Division of Biology & NERC Centre for Population Biology Imperial College London Silwood Park Ascot, Berkshire SL5 7PY UK

http://www.imperial.ac.uk/people/i.owens Ian Owens <i.owens@imperial.ac.uk>

LeidenU MuseumDirector

as advertized in 'Nature' last week

Associate director of research/Professor of evolutionary biology and biodiversity

Associate Director of Research (part-time) NATIONAL MUSEUM OF NATURAL HISTORY NATURALIS

and

Professor of Evolutionary Biology and Biodiversity (part-time) LEIDEN UNIVERSITY

http://www.naturalis.nl/ http://-www.IBL.leidenuniv.nl/ and http://-www.IBL.leidenuniv.nl/ The National Museum of Natural History (NNM/Naturalis) in Leiden and the Institute of Biology at Leiden University are establishing a 50/50 bridging position with the following major aims:

/ to set the agenda for scientific research at Naturalis (21 scientists, c. 15 million specimens), to guide its development and implementation, and to ensure significant external funding. Research at Naturalis has a wide scope ranging from coral reef biodiversity to gemmology and has a strong connection with collection hotspots;

/ to encourage and develop a more active interaction of biodiversity-based research across Naturalis and the IBL (11 research sections, 150 faculty members), ranging from phylogeny and (palaeo)biogeography to comparative genomics, bio-prospecting, ecological and theoretical studies;

/ to utilize the combined resources of Naturalis, with 250,000 visitors annually, and the wide spectrum of biodiversity research in Leiden and associated institutions to stimulate public relations and improve student intakes for the Biology teaching streams in Leiden;

/ to take a prominent role in coordinating new national initiatives in biodiversity;

/ to assist in building up a new Netherlands Centre of Biodiversity that is strongly positioned within all the major European initiatives.

The successful candidate will be someone with the following skills and expertise:

1 an eminent evolutionary biologist having a broad vision on Earth and Life Sciences and an affinity with alpha-taxonomic research;

2 a track-record of, and drive for attracting and leading research projects and programmes in an innovative and multi-disciplinary biodiversity-context;

3 excellent communicative skills in English and, within 3 years of appointment, in Dutch, both in scientific and governmental circles as well as in front of a general audience;

4 an affinity with the other main activities of Naturalis (collection keeping, exhibitions, educational programmes) and of the IBL (teaching);

5 the resourcefulness to contribute to the general management of both Naturalis and the Institute of Biology;

6 the ability to build bridges thus encouraging scientists to work together in innovative ways, and leading to a more effective collaboration among scientists, managers and non-government organisations.

For more information on current research and research

facilities, see both institutes' websites.

Both IBL and Naturalis offer a competitive salary commensurate with qualifications and experience. All qualified candidates are encouraged to apply. Both institutes are affirmative action/equal opportunity employers committed to equality of opportunity and a diverse workforce.

Candidates should submit a curriculum vitae, a clearly focused research vision (max. 2 pages), a statement of teaching interests, and the names and addresses (incl. tel. and e-mail) of three potential referees by e-mail (preferably as a single PDF file) or by mail to Mrs. S.S. Liefhebber, Human Resources Advisor, P.O. Box 9517, 2300 RA LEIDEN. E-mail : liefhebber@naturalis.nl.

Reprints/copies of the 5 most significant publications and additional information may be requested at a later stage. Closing date: December 15st . The effective date of employment is negotiable, but should preferably not be later than May 1, 2006.

For enquiries please contact :

Prof. Dr. Leo Kriegsman, Interim Associate Director of Research, e-mail: kriegsman@naturalis.nl (phone +31 71 568 76 54)

Or

Prof. dr. P.J.J. Hooykaas, Scientific Director IBL, e-mail: hooykaas@rulbim.leidenuniv.nl (phone +31 71 5274933).

Arntzen@nnm.nl Arntzen@nnm.nl

MichiganStateU PlantEvolEcol

Note that we encourage applications from evolutionary ecologists.

PLANT ECOLOGIST

The W.K. Kellogg Biological Station (KBS; www.kbs.msu.edu) of Michigan State University (MSU) seeks applicants for a tenure-track assistant professorship in Plant Ecology. We seek an interactive colleague in any area of plant ecology who will take advantage of the field and research facilities at KBS. Responsibilities will include development of an externally-funded research program, teaching at KBS and on the main MSU campus in East Lansing, and participation in the graduate program in Ecology, Evolutionary Biology, and Behavior at MSU (www.msu.edu/ ~ eebb). The successful candidate will be resident at KBS and have a joint appointment in the Department of Plant Biology (www.plantbiology.msu.edu) on the MSU campus.

Applicants should send a curriculum vitae and statements of research and teaching interests, and arrange to have three letters of recommendation sent to: Jeffrey Conner, Chair, Plant Ecologist Search Committee, W.K. Kellogg Biological Station, Michigan State University, Hickory Corners, MI 49060. Address questions to connerj@msu.edu. Review of applications will begin on 7 December 2005 and will continue until a suitable candidate is identified.

MSU is an Affirmative Action/Equal Opportunity Institution; women and minorities are particularly welcome to apply.

– Jeff Conner

Jeff Conner <connerj@msu.edu>

MountSaintVincentU EvolMicrobiology

Mount Saint Vincent University Department of Biology Microbiologist Position

The Biology Department at Mount Saint Vincent University invites applications for a full-time, tenure track position in microbiology at the Assistant Professor level effective July 1, 2006. We are seeking an individual with a PhD and postdoctoral experience who will add to the department's focus on evolutionary biology (www.msvu.ca/biology) and develop an independent, externally funded research program. Teaching duties will include courses related to her/his area of expertise and introductory biology.Applications, including a curriculum vitae, a summary of research goals and teaching interests, names and addresses of three references should be forwarded to:

Dr. Sheilagh Martin Chairperson, Biology Department Mount Saint Vincent University Halifax, NS B3M 2J6 Email: Sheilagh.Martin@msvu.ca

The Department will begin considering applications on January 9, 2006; the position remains open until filled and is subject to final budgetary approval. Mount Saint Vincent University is committed to the principles of employment equity and encourages applications from all qualified candidates including women, aboriginal per-

sons, visible minorities and persons with disabilities. All qualified candidates are encouraged to apply; however, priority will be given to Canadians and permanent residents.

Germán Avila Assistant Professor

Mount Saint Vincent University 166 Bedford Highway Halifax, Nova Scotia B3M 2J6

http://faculty.msvu.ca/germanavila/ German.Avila-Sakar@msvu.ca German.Avila-Sakar@msvu.ca

NCstateU StatGenetics

The Department of Statistics at North Carolina State University invites applications for a senior position (Associate/Full Professor) for its statistical genetics and bioinformatics programs. The appointee will be a tenured member of the Department of Statistics, will be housed in the Bioinformatics Research Center, and will have teaching responsibilities for the bioinformatics and statistics programs. As a senior scientist, responsibilities also include methodological and collaborative research as well as mentoring students and junior faculty.

North Carolina State University is a leading center of activity in genomic sciences, with substantial strength in bioinformatics and statistical genetics (<http://bioinformatics.ncsu.edu/>http://-bioinformatics.ncsu.edu). Its Bioinformatics Graduate program was established in 1999 and has now produced 13 Ph.D. and 28 Master of Bioinformatics graduates. There are 53 students currently in the program, supported by NSF-VIGRE and NIH Training Grant funds as well as by University Fellowships. The Bioinformatics Research Center was established in 2000 to work collaboratively with genomic scientists on campus as well as in the nearby Research Triangle Park and beyond. The Department of Statistics at the university has housed an internationally-acclaimed program in statistical genetics since its founding in 1941, and it is now also a key contributor to the bioinformatics activity on campus. The Department of Statistics belongs to both the College of Agriculture and Life Sciences and the College of Physical and Mathematical Sciences.

The Department's location in the Research Triangle provides rich opportunities for interactions with industry; other universities, including Duke University and the University of North Carolina at Chapel Hill; and government agencies, including NIEHS. Faculty enjoy collaborations with medical and other researchers on all three university campuses, pharmaceutical researchers at Glaxo SmithKline, and software developers at SAS Institute, among many others. It is an exciting time to be in the Research Triangle area and an exciting time to join a department that is looking to expand significantly on its strengths.

All applicants must have a Ph.D. in statistics, or a related field, as well as a demonstrated interest and commitment for research at the intersection of statistical and biological sciences with an established record of funded research, collaboration and good teaching. Some preference may be given to applicants whose research complements that in the statistical genetics program and that falls into the general areas of proteomics, metabolomics or gene expression.

All applicants should send a letter of application, curriculum vitae, and three names of references either electronically to bioinformatics_search@stat.ncsu.edu or as a hard copy to: Professor Zhaobang Zeng Chair, Statistics Search Committee Department of Statistics, Box 7566 North Carolina State University Raleigh, NC 27695-7566

Processing of applications will begin January 15, 2006 and continue until the positions are filled. Women and members of other underrepresented groups are especially encouraged to apply.

For more information about the department, see: <http://www.stat.ncsu.edu/admin/-jobs_20 05_Senior_Bioinformatics.html../>http://-www.stat.ncsu.edu/ North Carolina State University is an equal opportunity and affirmative action employer. In its commitment to diversity, the University seeks applications from women, underrepresented minorities, and persons with disabilities. NC State University welcomes all persons without regard to sexual orientation. Individuals with disabilities desiring accommodations in the application process should contact Merronda Cline, voice: (919) 515-1944; email: mtcline@stat.ncsu.edu; fax:(919)515-7591.

zeng@statgen.ncsu.edu

NatlZoolGardensSA WildlifeManager Assistant

BioBankSA/wBRC/National Zoological Gar-

dens/National Research Foundation of South Africa manages a growing National/Regional wildlife Biomaterials Bank and is looking for experienced and motivated persons to be appointed as:

1. Wildlife Laboratory Manager: A Senior Laboratory Technologist reporting to the Head, wBRC/BioBankSA. The successful applicant will be expected to perform the following duties: Manage the Wildlife biomaterials bank currently housed at NECSA, Pretoria; Plan and execute research and banking programmes; Supervise Interns with wildlife biomaterials research; Plan and conduct ranger training programmes in National Parks; Develop and implement laboratory Standard Operating Procedures and Quality Control measures; Network with stakeholders; Data capture and virtual database management; Presentations to both the scientific community and public on biodiversity conservation and biotechnology development; Development of resource materials (manuals, presentations etc.); Regional biomaterial banking field work. The successful candidate must be in possession of a MSc degree in Biological Sciences or equivalent with laboratory experience in a recognized laboratory. Experience in one or more of the following fields is essential: Genetics, Reproduction, Nutrition, Veterinary medicine, Biochemistry, Animal Physiology, Endocrinology, Biodiversity Conservation, Biotechnology Development. A PhD degree will be an added advantage.

2. Wildlife Laboratory Assistant: A Laboratory Technologist reporting to the Laboratory manager of the wBRC/BioBankSA. The successful applicant will be expected to perform the following duties: Manage the day to day upkeep of the laboratory; Collect, process and bank wildlife biomaterials; Maintain laboratory equipment and infrastructure; Data capture and record keeping; participate in research projects; administrative support duties; Field collection of wildlife biomaterials. The successful candidate must be in possession of a BSc degree in Biological Sciences or equivalent with laboratory experience in a recognized laboratory. A MSc degree will be an added advantage.

The Wildlife Biological Resource Centre / BioBankSA of the National Zoo, National Research Foundation offers a competitive remuneration package and benefits. Please contact Dr Paul Bartels for further information at: paulb@wbrc.org.za or call +27-82-990-3533

Cassandra Miller-Butterworth <cbutterworth@hgen.pitt.edu>

NorthernMichiganU Geneticist

Geneticist

Northern Michigan University invites applications to fill a faculty position at the level of Assistant Professor in Biology beginning August 2006. The position requires a Ph.D. and is tenure earning. We seek a biologist committed to teaching with an interest in contributing to interdisciplinary programs in a comprehensive university. An active research program in genetics involving undergraduate and graduate students is expected. Teaching responsibilities will include genetics, cell and molecular biology, introductory biology, and courses in area of specialization.

Northern Michigan University, the major comprehensive institution of higher learning in the Upper Peninsula of Michigan, has a faculty of over 300, a student population of about 9500 students, and a campus of 323 acres. Faculty and students enjoy state of the art laboratory facilities in the recently completed Glenn T. Seaborg Science Complex. A range of exciting collaborative opportunities exist. These include cancer research on campus in cooperation with Dendreon Corporation (Seattle, WA) and student internships in diagnostic genetics at the Mayo Clinic (Rochester, MN). NMU is located in the City of Marquette (population 22,000) on the shores of Lake Superior. The setting provides abundant opportunities for year-round outdoor recreation.

Application review begins 2 December 2005 and continues until the position is filled. Send curriculum vitae, statements of teaching and research philosophies, and names, addresses, telephone numbers and email addresses of three references to: Chair, Genetics Search Committee, Department of Biology, 1401 Presque Isle Avenue, Marquette, MI 49855-5341. (906) 227-2310 (voice); (906) 227-1063 (fax); email biology@nmu.edu. Detailed selection criteria are available at www.nmu.edu/biology <http://-www.nmu.edu/biology>. /NMU is an equal opportunity, affirmative action employer and is strongly committed to increasing the diversity of its faculty./

alindsay@nmu.edu alindsay@nmu.edu

Smithsonian GeneticsLabManager

Genetics Laboratory Manager, Smithsonian Institution

We are recruiting for a Laboratory Manager [Biological Science Laboratory Technician (Molecular Biology)] position for the Genetics Program of the Smithsonian Institution in Washington, DC. The Genetics Program conducts research and service for both the National Zoological Park and the National Museum of Natural History in the fields of population and conservation genetics, and molecular evolution, systematics and ecology. Starting salary is a GS-9, $43,365 per annum, with promotion potential to GS-11. (Salary is subject to salary level increase pending FY06 Federal budget allocation) The position entails laboratory management and research, and the ideal applicant will have had experience managing a genetics laboratory (i.e., maintenance of laboratory equipment, facilities and frozen tissue collections, and purchasing of supplies and equipment) and conducting and training students and technicians in various molecular genetic methods (including, for example, PCR, DNA sequencing using capillary sequencers, construction of genomic libraries, development of microsatellite and SNP markers, ancient and non-invasive DNA extraction, and microarray procedures). Reference specific application procedures in actual announcement * see www.sihr.si.edu or contact Audrey Davis at 202-275-1005. Announcement will open October 24, 2005. Applications must be received by November 18, 2005, and must reference announcement number 05AD-1307. All applications will be notified by email or phone when their application is received. The Smithsonian Institution is an Equal Opportunity Employer. For more detailed information about the position please contact Rob Fleischer (fleischr@si.edu).

Robert C. Fleischer Genetics Program National Museum of Natural History National Zoological Park Smithsonian Institution 3001 Connecticut Ave., NW Washington, DC 20008-0551, USA phone 202-633-4190; fax 202-673-0040 fleischr@si.edu USE STREET ADDRESS

Fleischer.Robert@NMNH.SI.EDU

StandfordU EvoDevo

I would like to bring to your attention an ad for an Assistant Professor position in Evolutionary Developmental Biology at Stanford. Evolutionary Developmental Biology is construed very broadly here and encompasses all work that is directed at understanding phenotypic evolution in the mechanistic context. The deadline has already passed but there is still some time to send an application if you are interested and have missed the deadline.

Below is the official ad:

Stanford University Department of Biological Sciences

Evolutionary Developmental Biologist Faculty Position

The Department of Biological Sciences at Stanford University seeks applicants for a tenure track faculty appointment in the area of Evolutionary Developmental Biology at the rank of Assistant Professor. We seek applicants studying problems in the evolution of development, broadly defined to include work focused on understanding mechanisms of phenotypic evolution. Applicants are expected to develop a vigorous research program and to participate in both undergraduate and graduate education. For information about the Department consult http://biology.stanford.edu/ . Applicants should send an application containing: a cover letter (with email address and fax number), a curriculum vitae, names and email addresses of three references, a statement of research accomplishments and future plans, and a description of teaching experience to:

Chair, Evolutionary Developmental Biology Search Committee Department of Biological Sciences 371 Serra Mall Stanford University Stanford, CA 94305-5020

Applicants should request that their reference letters be sent directly to the above address. Materials should be received by November 1, 2005. The term of the appointment would begin September 1, 2006. Stanford University is an Equal Opportunity, Affirmative Action Employer.

– Dmitri Petrov Assistant Professor Department of Biological Sciences 371 Serra St. Stanford University Stanford, CA 94305

TEL (650) 736 1169 (office) TEL (650) 736 2249 (lab) FAX (650) 723 6132 WEB: http://petrov.stanford.edu e-mail: dpetrov@stanford.edu

"Dmitri A. Petrov" <dpetrov@stanford.edu>

eserrao@ualg.pt

UAlgarve MarineEcolEvol

Research Scientist (Investigador Auxiliar) in Marine Ecology and Evolution Commencing date: As soon as possible after the closing date Place of work: Centre of Marine Sciences, University of Algarve, Campus de Gambelas, 8005-139 Faro, Portugal

Job description: To integrate into the Marine Ecology and Evolution group (http://www.ualg.pt/ccmar/-maree) which is primarily interested in the ecology and evolution of reproductive modes and of adaptation to the environment in marine populations. Marine plants and algae are the current main models for a research program that combines ecological and physiological approaches with population genetics and genomics. Some current themes of interest are: assessing population structure and adaptive divergence by comparing neutral and selected genetic markers, biogeographic structure of population genetic diversity and differentiation, reproductive ecology and mating system evolution, mechanisms of sex determination, adaptive divergence in stress resistance, and inferring evolutionary pathways by molecular phylogeny.

Qualifications and experience: Candidates must hold a PhD and postdoctoral experience, preferably, but not necessarily, in one or more of the areas described in the job description above.

Further information can be obtained from: Prof. Ester Serrao: eserrao@ualg.pt or Dr. Gareth Pearson: gpearson@ualg.pt

Contractual conditions: Initial 3-year contract, in accordance with current legislation (article 14a, Dec. Lei 125/99, 20 April) and for the implementation of the project with the possibility of renewal.

Closing date: 10 December 2005

To apply for this position, candidates should submit a detailed CV with a concise description of research experience, a 2-3 page outline of a research proposal in the research area of the group and the names and addresses of at least two referees, quoting ref. CIMAR / 11 / 2005 to: secretariado@cimar.org

Centro Interdisciplinar de Investigaão Marinha e Ambiental, Rua dos Bragas, n 289, 4050-123 Porto, Portugal Fax: +351 223 390 608

UCIrvine 2 EvolEcol

ECOLOGY: TWO FACULTY POSITIONS UNIVERSITY OF CALIFORNIA, IRVINE

The Department of Ecology and Evolutionary Biology seeks to fill two tenure-track Assistant Professor positions in ecology. Possible areas of specialization include behavioral, population, community, and ecosystem ecology, without regard to taxon or system. Researchers studying any aspect of global biological change, including questions related to invasion, biodiversity, biogeography, land transformations and restoration, biogeochemistry, the effects of climate change, and conservation biology, are particularly encouraged to apply. Applicants interested in theory and modeling, as well as those working in the laboratory or field, will be considered. Each successful candidate will be expected to teach in undergraduate and graduate courses in ecology. Applications will be accepted until the positions are filled, but will be considered starting on December 1, 2005.

Please submit a letter of application including a statement of research and teaching interests, a curriculum vitae, and a sample of relevant publications, and arrange to have three letters of recommendation sent to Ecology Search Committee, Department of Ecology and Evolutionary Biology, 321 Steinhaus Hall, University of California, Irvine, CA 92697-2525. The Department of Ecology and Evolutionary Biology (<http://-ecoevo.bio.uci.edu/>http://ecoevo.bio.uci.edu/) maintains strong ties with the Department of Earth System Sciences in the area of global change ecology (<http://globalchange.bio.uci.edu/>http://-globalchange.bio.uci.edu/; http://www.ess.uci.edu/).

The University of California, Irvine has an active career partner program, is an equal opportunity employer committed to excellence through diversity, and has a National Science Foundation Advance Gender Equity Program.

Stephen G. Weller Dept. of Ecology and Evolutionary Biology University of California Irvine, CA 92697

phone: 949-824-6581 FAX: 949-824-2181

http://darwin.bio.uci.edu/%7Esakaiweller/weller.html
http://darwin.bio.uci.edu/ ~ sakaiweller/home.html
Steve Weller <sgweller@uci.edu>

UCLA Tech PlantPopGenet

Laboratory technician position in plant population/conservation genetics

Technician will perform molecular techniques associated with research in gene flow, phylogeography and conservation genetics of California oaks in the laboratory of Victoria Sork at UCLA. Review of applications will start 11/29/05, and continue until position is filled. Position is available immediately, but delays are possible.

If interested, please contact Victoria Sork for details (vlsork@ucla.edu).

Below is the official university announcement, which sounds far more intimidating than actual position.

STAFF RESEARCH ASSOCIATE II - NON EXEMPT: Under the supervision of the principal investigator, perform standard laboratory procedure and data management for research in plant population and conservation genetics. Conduct molecular analyses, including DNA extraction, PCR, genotyping with microsatellite DNA and sequencing. Perform duties using standard methods and by developing modifications of standard methods. Oversee day-to-day management of laboratory including purchase of supplies and equipment. Insure proper operation and maintenance of laboratory equipment. Enter and manage electronic data files. Work with undergraduate research assistants. Maintain greenhouse plants. Occasionally train students. QUALIFICATIONS: Working knowledge of population genetics, evolutionary biology, or molecular biology preferred. Detailed knowledge of the safety and handling of laboratory chemicals and equipment. Knowledge of molecular techniques that include PCR, DNA extraction, restriction enzymes, microsatellite primers, and sequencing. Ability to understand scientific protocols and to maintain an organized notebook. Ability to conduct literature searches for knowledge essential to experimental analyses (can be trained). Bachelor's degree in Biology or Molecular Biology preferred. Demonstrated related laboratory experience. Ability to work independently without close supervision. Ability to maintain a well stocked lab with supplies. Ability to organize assignments, set priorities, meet deadlines and complete assignments. Ability to communicate with coworkers and interact and participate in group efforts preferred. Ability to train and supervise students and other lab assistants in experimental procedures preferred. Knowledge of computer software and hardware problem solving preferred. DEPARTMENT: Ecology and Evolutionary Biology CAMPUS ADDRESS: 2203 Life Sciences Building MAIL CODE: 160606 Req. No. 6079. Closing Date 11/29/05.

Victoria Sork <vlsork@ucla.edu>

UCaliforniaBerkeley Bioinformatics

Brian,

The Museum of Vertebrate Zoology has two open positions which may be of interest to the members of EvolDir:

Bioinformatics/GIS Scientist see http://-mvz.berkeley.edu/Bioinformatics_position_01-06.html and

Supervisor Evolutionary Genomics Lab see http://diomedea@mvz.berkeley.edu/-Evo_Gen_Lab_position_01-06.html If this posting is appropriate to EvolDir, I would appreciate you submitting it to your members. Alternatively, if it would be more suitable for me be added to the list, and then to post these job openings, please advise.

Thank you for your consideration, – Stephen M. Long Administrative Assistant to the Director Museum of Vertebrate Zoology 3101 Valley Life Sciences Building University of California Berkeley, CA 94720-3160 Telephone: 1-510-642-8299 Telefax: 1-510-643-8238

Stephen Long <diomedea@calmail.berkeley.edu>

UCaliforniaBerkeley EvolEcol

The Department of Integrative Biology, University of California, Berkeley invites applications to a faculty position in Ecology at the Assistant Professor level. We are searching broadly, without regard to taxon or system, for individuals who integrate experimental field studies with theory. We will consider exceptional ecologists in all areas, but are particularly interested in those working on species interactions, biological invasions, the community-ecosystem interface, and other ar-

eas that complement current faculty strengths on campus. UCB provides outstanding access to field sites, including the UC Natural Reserve System.

Applicants must have a Ph.D., productive postdoctoral experience, and a demonstrated record of research excellence. Candidates must be strongly committed to developing an externally funded, internationally recognized, research program, and contributing significantly to both the undergraduate and graduate curricula through teaching and mentorship.

Submit a CV, statements of research and teaching interests, and the names and addresses of three references to Chair, Ecology Search Committee, Dept. of Integrative Biology, 3060 Valley Life Sciences Bldg. #3140, University of California, Berkeley, CA 94720-3140 USA. The deadline for receipt of applications is December 16, 2005. The University of California is an Equal Opportunity Employer committed to excellence through diversity.

esimms@berkeley.edu esimms@berkeley.edu

UCaliforniaMerced EvolBiol

Evolutionary Biology faculty position University of California Merced

The University of California is creating a dynamic new university campus and campus community in Merced, California, which opened in September 2005 as the tenth campus of the University of California and the first American research university built in the 21st century. In keeping with the mission of the University to provide teaching, research and public service of the highest quality, UC Merced will be providing new educational opportunities at the undergraduate, masters and doctoral levels through three academic schools: Engineering, Natural Sciences and Social Sciences/Humanities/Arts.

The School of Natural Sciences at the University of California, Merced invites faculty applications at the Assistant Professor level in the area of Evolutionary Biology. To support our development of innovative, interdisciplinary research programs and curricula, we seek assistant professor applicants in the area of evolutionary biology with a particular emphasis on research that links evolutionary theory to questions in biology, including, but not limited to: elucidating the mechanisms leading to biodiversity, understanding the role of evolution in shaping ecosystems, determining the evolutionary constraints on biological function, or studying the evolutionary mechanisms creating behaviors and higher cognitive function. Preference will be given to candidates with a record of research that bridges multiple scales or methodologies.

The University of California at Merced is an affirmative action/equal opportunity employer with a strong institutional commitment to the achievement of diversity among its faculty, staff, and students. The University is supportive of dual career couples.

Qualifications: Applicants must have a Ph.D. in biology, with an emphasis on evolution and record of research, publication, and teaching commensurate with a faculty appointment at the University of California. Applicants must have demonstrated, appropriate to their level, research excellence, leadership, and potential for future productivity in evolutionary biology. Applicants should have the ability to interact with colleagues from a broad range of disciplines, and a strong interest in developing interdisciplinary and multidisciplinary undergraduate and graduate curricula and research programs. We require a commitment to excellence and innovation in undergraduate and graduate education and training, and a commitment to education and outreach for students of diverse backgrounds, particularly disadvantaged or underrepresented students.

Salary: Negotiable, based on the University of California pay scale

Closing Date: 01/02/2006

To Apply: Interested applicants are required to submit 1) a cover letter 2) curriculum vitae 3) statement of research 4) statement of teaching and 5) a list of five references with contact information including mailing address, phone number and e-mail address.

Please do not submit individual letters of recommendation.

Submissions must be made via this website.

Apply Online: http://jobs.ucmerced.edu/-list_academic_positions.faces? seriesId=1

For more information: Please contact Dr. Sam Traina, search committee chair (straina@ucmerced.edu).

Monica Medina Assistant Professor School of Natural Sciences University of California, Merced P.O. Box 2039 Merced CA 95344 tel: 209-381-7863 fax: 209-812-1857 mmedina@ucmerced.edu

Monica Medina <mmedina@ucmerced.edu>

UCentralArkansas Genetics

We are currently advertising for at least two genetics positions at the University of Central Arkansas. We have several faculty with an ecological slant to their research and an active interdisciplinary Environmental Science Program. We hope to fill at least one of the genetics positions with an applicant interested in molecular systematics or population/conservation genetics. The successful applicant would also have the flexibility to develop an upper division/graduate level course in addition to contributing to the sophomore level genetics course. Please feel free to pass on the advertisement to anyone you think might be interested.

Thanks Ginny

TENURE-TRACK FACULTY POSITIONS GENETICS and MICROBIOLOGY & IMMUNOLOGY

The Department of Biology at the University of Central Arkansas (UCA) invites applications for tenure-track faculty positions within the areas of Genetics and Microbiology & Immunology. These appointments will be at the Assistant Professor level and will commence August 15, 2006. Cover letters should clearly indicate the category for which the candidate is applying

Applications are sought from outstanding individuals who value quality teaching and are dedicated to developing active research programs involving both undergraduate and graduate students. We plan to hire at least two new faculty members in each subdiscipline in an effort to establish core strengths in these areas. Genetics faculty will contribute to our sophomore-level Genetics course. Preference will be given to one candidate for his/her ability to also develop a modern course in Developmental Biology. Microbiology & Immunology faculty will contribute to our sophomore-level Microbiology in Human Affairs course for pre-nursing students, as well as our General Microbiology course for biology majors. We intend to hire one individual in the area of bacteriology with preference given to a second candidate for his/her ability to develop a modern course in Immunology and/or Parasitology. All successful candidates will have opportunities to develop and teach other upper-division and graduate courses as well

These positions offer a reduced teaching load initially, dedicated research space, start-up funding, opportunities for internal grants, and additional shared research space and instrumentation including approved animal facilities, two greenhouses, a real-time PCR machine, and modern SEM and confocal microscopes. Collaborative research opportunities with current UCA faculty members exist in broad areas including cell and molecular biology, plant and animal physiology and ecophysiology, animal behavior, environmental science, neuroscience, evolutionary biology, and science education

The Department of Biology at UCA has 29 full-time faculty, approximately 550 undergraduate majors and a growing Master's program which currently enrolls 29 graduate students. Please visit http://www.uca.edu/-biology/ for more details regarding the Department, the Conway, Arkansas area and these open positions

Candidates should submit curriculum vitae, statement of teaching philosophy, an outline of research plans indicating where students may participate, and the names and contact information for three references to: Dr. Steven Runge, Department of Biology, University of Central Arkansas, Conway, AR 72035-5003. Ph.D. required and recent Ph.D.'s are encouraged to apply. Review of applications will begin on November 16, 2005 and continue until the positions are filled.

Ginny Adams, PhD Environmental Science Program Coordinator Department of Biology University of Central Arkansas Conway, AR 72035

Phone: 501-450-5917 Fax: 501-450-5914 Email: ginny.adams@mac.com

ginny.adams@mac.com

UFlorida MolecularTech

I am looking for an energetic, well-organized person to join me at a new conservation genetics lab located at the Department of Fisheries and Aquatic Sciences in the University of Florida in Gainesville. The molecular technologist will contribute to a variety of conservation genetic projects involving a wide-variety of terrestrial and aquatic organisms. Examples include the study of the genetics of endemism, landscape genetics, and various phylogenetic and phylogeographic projects.

Specific responsibilities will be standard molecular lab work (e.g. DNA isolation, PCR, sample preparation for sequencing, editing sequence data and scoring fragment markers). Skills in construction and cloning of microsatellite and gene libraries, using genomic software

and search tools, and running phylogenetic and population genetic software are required. General responsibilities will include maintaining databases, overseeing lab duties, assisting in student training, and ordering supplies. Opportunities to assist in fieldwork will also be available. Pre-requisite is a M.Sc. in a molecular biology field or a minimum of a B.Sc. in related field with at least one year of experience in a molecular biology or molecular systematics environment, with working knowledge of standard molecular lab protocols. Neatness, attention to detail, good organizational skills and ability to manage people are a must. Occasional weekend/ evening hours will be necessary.

Gainesville is a historic mid-sized (120,000) college town with plenty to offer those interested in the outdoors, wildlife, and the arts. Gainesville is within two hours of Jacksonville, Orlando, Tampa and Tallahasee, and one hour from either coast (for info on Gainesville and area see http://www.cityofgainesville.org/about/).

This is a three-year position, thereafter renewable on an annual basis upon availability of funding. Salary is $30,000 plus benefits. Applications accepted through Jan 15, 2006. Start date is expected to be February or March 2006. Inquiries should be made to Dr. Jim Austin, (jda34@cornell.edu - until the end of 2005; in Gainesville in Jan. 2006, see http://-fishweb.ifas.ufl.edu/). Please send (email) a letter expressing interest, your CV and names of three references. Applicants will also be required to formally apply through the University of Florida employment site: http://jobs.ufl.edu/ . James Austin Ecology and Evolutionary Biology Corson Hall Cornell University Ithaca, NY, 14853-2701

jda34@cornell.edu jda34@cornell.edu

UGeorgia ComplexTraitsGenetics

OPEN RANK FACULTY POSITION IN THE GENETICS OF COMPLEX TRAITS Department of Genetics, University of Georgia

The Department of Genetics in conjunction with the Institute for Behavioral Research, and the Biomedical and Health Sciences Institute at the University of Georgia invites applications for a tenure-track faculty position (rank open) in the genetics of complex traits , with a preference for research in humans or murine models, but strong candidates will be considered regardless of model organism. The University of Georgia provides excellent opportunities to work collaboratively in an exciting multidisciplinary environment with researchers studying substance use, mental health problems, aging, immunity, and human diseases such as diabetes type II. The candidate will be expected to maintain a rigorous research program and to contribute to undergraduate and graduate teaching. Academic appointment will be in the Department of Genetics. The anticipated start date is August, 2006.

Applicants should send a cover letter, CV, statements of research and teaching interests, and no more than three representative publications to: Chair, Search Committee, Genetics of Complex Traits, Department of Genetics, Fred C. Davison Life Sciences Complex, University of Georgia, Athens, GA 30602-7223. The applicant should also arrange for three letters of recommendation to be mailed directly to the search committee. The Franklin College of Arts and Sciences is committed to increasing the diversity of its faculty and strongly encourages applications from individuals in underrepresented groups. The University of Georgia is an Affirmative Action and Equal Opportunity Employer. To assure full Consideration, applications must be received by December 30, 2005. The review of applications will begin on January 2, 2006.

Daniel Promislow Department of Genetics University of Georgia Athens, GA 30602-7223 promislow@uga.edu

Daniel Promislow <promislow@uga.edu>

UGroningen BenthicEcolEvol

Tenure Track Position in Marine Benthic Ecology & Evolution

The University of Groningen can offer you excellent career prospects!

The Faculty of Mathematics and Natural Sciences is offering young, talented researchers positions which are at the level of Assistant Professor via the tenure-track system. Researchers are given the opportunity to develop their own line of research. The faculty's career policy is characterized by flexible personnel management with a focus on the individual. Academic achievements are seen as being central to the academic career, and ample opportunities for professional development and supplementary training and education are offered. Arrangements for training in the area of teaching will be made with all new employees.

The appointment will be on a temporary basis for a maximum of 6 years. On completion of 5 years of employment there will be an assessment of performance based on established criteria. If the outcome of the assessment is positive, the assistant professor will be promoted to the rank of associate professor with tenure and be made a permanent faculty member. There will be another assessment at the end of a further 5-year period aimed at a promotion to full professor (level 2).

Tenure Track Position (assistant professor)

At the Department of Marine Benthic Ecology & Evolution (MarBEE) and Department of Ocean Ecosystems constitute the Marine Biology cluster within the Centre for Ecological and Evolutionary Studies (CEES) in the Faculty of Mathematics and Natural Sciences of the University of Groningen, and also takes part in the National Research School "Functional Ecology & Biodiversity". Areas of research in marine biology include ecology, population genetics and genomics of benthic plants and animals, ecophysiology of marine phytoplankton, and marine behavioral mechanics and energetics of zooplankton, zoo benthos and nekton. The present position is available within the MarBEE group which focuses on the population genetic structure, dispersal, large-scale phylogeography and speciation processes.

Main tasks:

development of novel research lines in the respectives areas the research is expected to form a cohesive programme with the department's existing expertise, while simultaneously bringing something new and complementary

acquisition of external research funds

teaching in undergraduate- and graduate-level courses

supervision of PhD students

organisational and management duties within the research group.

Personal profile:

a PhD degree with a background in marine ecology, population genetics, community ecology or related discipline with either a strong track record or strong interest in benthic species (animals or plants) and communities.

two or more of years of experience abroad in a postdoctoral capacity or experience at another educational institution

research, teaching and organizational experience appropriate to career stage

research accomplishments, as expressed in a list of (first author) publications appropriate to career stage

evidence of successful acquisition of external funding appropriate to career stage.

The University of Groningen can offer you:

A salary dependent on qualifications and work experience up to a maximum of ? 4605,– gross per month (scale 11/12) for a full-time job (12 monthly payments), an 8% holiday allowance, and participation in a pension plan for government employees.

Additional information can be obtained through one of the following links:

http://www.rug.nl/biologie/onderzoek/-onderzoekgroepen/marieneBiologie/ http://-www.rug.nl/biologie/onderzoek/onderzoekinstituten/-cees/ http://www.rug.nl/biologie/onderwijs/

Further information about this position can be obtained from: Prof. Dr. J.L. Olsen, phone +31 (0)50 363 2250, e-mail: j.l.olsen@rug.nl or Prof. Dr. W.T. Stam, phone +31 (0)50 363 2252, e-mail: w.t.stam@rug.nl NB: Olsen and Stam will return 14 Nov and will be happy to address your inquiries after that date.

Application

Applications should include: Cover letter, complete curriculum vitae, and statement of research vision/motivation. Be sure to include the names and full addresses of three persons that are prepared to write letters of recommendation for you.

You can apply for this job before 6 december 2005 by sending your application to: The University of Groningen Personnel & Organisation Department P.O. Box 72 9700 AG Groningen The Netherlands E-mail address: vmp@bureau.rug.nl

When applying for this job always mention the vacancy number (not

— / —

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

UKonstanz EvolDevNeuro

Postdoctoral and PhD positions- Developmental Neurobiology, Uni-Konstanz

Postdoctoral (BTAII) and PhD (BTAII/2) positions funded by TR-SFB11 are available in the group of Developmental Neurobiology, Faculty of Biology, University of Konstanz, for research on "Molecular mechanism of axon regeneration in zebrafish". The project will include in vivo and in vitro assays on zebrafish, tissue culture, axon growth assays, molecular cloning, transgenic zebrafish, morpholino and mRNA microinjection, heterologous expression on mammalian cell lines and laser confocal microscopy. Candidates are expected to have experience and primary research interests in developmental neurobiology and/or molecular neurobiology, as well as being highly motivated to work into an international and multidisciplinary group.

For further information and application, please contact: Prof. Dr. Claudia A.O. Stuermer Dept. of Biology University of Konstanz D-78434 Konstanz Germany Tel. 49-7531-882236 Fax 49-7531-883894 E-mail: Claudia. Stuermer@uni-konstanz.de URL: http://www.uni-konstanz.de/FuF/TR-SFB11/-trafo/ eric.rivera-milla@uni-konstanz.de eric.rivera-milla@uni-konstanz.de

UMassLowell Genetics

This advertisement will be appearing in the Nov. 18th issues of Science and Chronicles of Higher Education:

TENURE-TRACK POSITION IN BIOLOGICAL SCIENCES

The University of Massachusetts Lowell Department of Biological Sciences invites applications for a tenure-track position, rank negotiable, to start fall 2006. The successful candidate will be expected to build a vigorous, externally funded research program, and collaboration within this and other departments is encouraged. Current faculty research interests include bioinformatics, genetics, plant science, neurobiology, cancer biology, invertebrate biology, developmental biology, virology, microbial ecology, and biogeochemistry. Our campus is located very near the vibrant academic and commercial biotechnology centers of Boston, Cambridge and Worcester. We are seeking individuals with expertise in one or more of the following areas: Genetics, Population Genetics, Evolution, and/or Conservation Biology. Teaching obligations include development of upper level undergraduate/graduate courses in her/his expertise and participation in the teaching of core undergraduate courses as needed. Applicants should submit the following materials by mail (no electronic copies), by November 18 2005, a curriculum vita, copies of several recent research publications, a statement of research and teaching interests, not to exceed three pages, and arrange for three letters of recommendation to be sent to: Dr. Brian Bettencourt, Department of Biological Sciences, University of Massachusetts Lowell, One University Avenue, Lowell MA 01854. E-mail: Brian_Bettencourt@uml.edu. The University of Massachusetts is an Equal Opportunity/Affirmative Action Title IX, H/V, ADA 1990 Employer and Executive Order 11246, 41 CFR60-741 4, 41 CRF60-250 4, 41CRF60-1 40 and 41 CFR60-1,4 our hereby incorporated.

Cheers!

Brian Bettencourt Asst. Professor Dept. Biological Sciences, UMass Lowell 1 University Ave. Lowell, MA 01854 978 934 2899

Brian_Bettencourt@uml.edu

UMassLowell Genetics correction

Please note - the previously posted version of the job advertisement incorrectly listed the review date as the opening date. Applications can come in starting Nov. 18th, and will be accepted until December 24th 2005. The correct copy follows. Thank you for an alert EVOLDIR reader for catching the error!

UNIVERSITY OF MASSACHUSETTS LOWELL The University of Massachusetts is an Equal Opportunity/Affi rmative Action Title IX, H/V, ADA 1990 Employer and Executive Order 11246, 41 CFR60-741 4, 41 CRF60-250 4, 41CRF60-1 40 and 41 CFR60-1,4 are hereby incorporated. The University of Massachusetts Lowell Department of Biological Sciences invites applications for a tenure-track position, rank negotiable, to start in Fall 2006. The successful candidate will be expected to build a vigorous, externally funded research program, and collaboration within this and other departments is encouraged. Current faculty research interests include bioinformatics, genetics, plant science, neurobiology, cancer biology, invertebrate biology, developmental biology, virology, microbial ecology and biogeochemistry. Our campus is located very near the vibrant academic and commercial biotechnology centers of Boston, Cambridge and Worcester. We are seeking individuals with expertise in one or more of the following areas: Genetics, Population Genetics, Evo-

lution, and/or Conservation Biology. Teaching obligations include development of upperlevel undergraduate/graduate courses in her/his expertise, and participation in the teaching of core undergraduate courses as needed. A curriculum vita, copies of several recent research publications, a statement of research, teaching interests not to exceed three pages, and arrangement for three letters of recommendation should all be sent to the search committee. Apply by December 24, 2005, to: Search Committee for Assistant/Associate Professor in Biological Sciences, C/O Dr. Brian Bettencourt, University of Massachusetts Lowell, Department of Biological Sciences, One University Avenue, Lowell, MA 01854.

Brian_Bettencourt@uml.edu
Brian_Bettencourt@uml.edu

UNewSouthWales Bioinformatics

Please direct enquires to Prof Paul Compton.

—

Senior Lecturer (Bioinformatics) UNIVERSITY OF NEW SOUTH WALES, AUSTRALIA SCHOOL OF COMPUTER SCIENCE AND ENGINEERING & SCHOOL OF BIOTECHNOLOGY AND BIOMOLECULAR SCIENCES REF. 3958

The Bioinformatics program at UNSW is a cross-Faculty initiative between the Faculties of Engineering and Science, within the Schools of Computer Science and Engineering (CSE) and Biotechnology and Biomolecular Sciences (BABS).

The successful candidate will be expected to drive and coordinate bioinformatics teaching programs; develop appropriate bioinformatics/computational research; take primary responsibility for coordinating and developing computational and bioinformatics infrastructure and support; develop new professional and continuing education activities in bioinformatics.

Essential criteria: PhD in a relevant discipline or equivalent experience; high-quality skills and experience in tertiary-level teaching in bioinformatics; demonstrated or potential ability to attract competitive research funding and lead a productive, internationally-competitive research team; ability to collaborate in interdisciplinary research programs as appropriate; excellent oral and written communication skills; ability to implement equal opportunity policies and programs; willingness and capacity to implement required OHS policies and safe work practice;

Desirable criteria: ability to undertake or coordinate new software development; working knowledge of molecular cell biology and genomics; capacity to develop new curricula. The salary range for Senior Lecturer is A$78,983 - A$90,615 per year (plus up to 17% employer superannuation plus leave loading), depending on qualifications and experience. This salary includes a superable UNSW academic loading of A$3,000 per annum payable to all academic staff (pro rata for fractional academic staff). Membership of a University approved superannuation scheme is a condition of employment.

Enquiries should be directed to Professor Paul Compton, School of Computer Science and Engineering: telephone (61 2) 9385 5518, facsimile (61 2) 9385 4071, email p.compton@unsw.edu.au

Applications close 30 November 2005.

Applicants can obtain a position description from the contact and must address the selection criteria. For full details of these and other positions and how to apply, see: http://www.hr.unsw.edu.au/employment.htm —

Mark Tanaka School of Biotechnology and Biomolecular Sciences University of New South Wales Sydney NSW 2052 Australia phone: +61-2-9385-2038 fax: +61-2-9385-1483

CRICOS Provider Code: 00098G

m.tanaka@unsw.edu.au m.tanaka@unsw.edu.au

USouthFlorida EvolGenomics

Our department is recruiting for a position in genomics, and we have an especially strong interest in evolutionary and ecological genomics, consistent with our strength in ecology and evolution. The ad follows; feel free to contact me for more information.

Gordon Fox

GENOMICS FACULTY POSITION

The Department of Biology at the University of South Florida (USF) announces a tenure-track position at the Assistant Professor level beginning August 2006. Research interests should be in the general area of Genomics. Candidates that can interact with our dynamic group of faculty with strengths in Cell and Molecular

Biology, Conservation Biology and Marine Biology are encouraged to apply. Candidates must have a Ph.D. in one of the biological sciences, postdoctoral experience and relevant publications. The successful candidate will be expected to develop an active, externally funded research program, and teach an undergraduate course in genetics and graduate courses in their area of specialization. Send a CV, reprints of three published papers, statements of research and teaching interests, and three letters of reference to the Genomics Search Committee, Department of Biology, University of South Florida, 4202 E. Fowler Avenue, SCA 110, Tampa, Florida 33620-5200. Complete applications, including letters, must be received by December 15, 2005. According to Florida Law, applications and meetings regarding them are open to the public. For ADA accommodations, please contact Dawn McGowan at 813-974-3250 at least five working days prior to need. USF is an AA/EEO institution.

– Dr. Gordon A. Fox Voice: (813)974-7352 Fax: (813)974-3263 Dept. of Biology ((for US mail:)SCA 110) ((for FedEx etc:)BSF 156) Univ. of South Florida 4202 E. Fowler Ave. Tampa, FL 33620, USA http://-boojum.cas.usf.edu/index.pl/home "Trying is the first step towards failure." – Homer Simpson

gfox@cas.usf.edu

UWindsor MolEvolEcol 2

Great Lakes Institute for Environmental Research (GLIER) Tenure-Track Position in Molecular Ecology

The University of Windsor invites applications for a tenure-track position in Molecular Ecology for the Great Lakes Institute for Environmental Research (GLIER) at the rank of Assistant Professor commencing July 1, 2006. This position is subject to final budgetary approval.

The Great Lakes Institute for Environmental Research (GLIER) of the University of Windsor is a multidisciplinary research team focused on studying the impact of multiple stressors on aquatic ecosystems. It is dedicated to the management of the earth's resources to protect and maintain human and environmental health. GLIER is located in world-class facilities on the Detroit River at the University of Windsor. These facilities consist of fully equipped state of the art analytical laboratories for both trace organics and metals, an applied molecular genetics analysis facility, a toxicology laboratory specializing in in vitro assays, an ecology laboratory with a full-service aqua-research center and an environmental modeling facility. For further details about GLIER visit our website at: http://-www.uwindsor.ca/glier . The successful candidate will be cross-appointed to a relevant Department within the University of Windsor, and will contribute to teaching in GLIER?s graduate program as well as undergraduate instruction. The successful candidate must have a Ph.D. and postdoctoral experience is an asset. S/he is expected to develop vibrant, individual and collaborative research programs. We seek faculty whose interests integrate with existing strengths of GLIER in the areas of conservation genetics, geochemistry, aquatic toxicology, invasive species, and lake productivity. The Molecular Ecologist should utilize molecular tools to address ecological problems with applications to large lakes, including adaptation to environmental stressors.

Applications should include: a letter of application, including a statement of citizenship/immigration status; a detailed curriculum vitae; a research statement outlining research interests and potential for scholarly achievement; a teaching dossier or evidence of teaching effectiveness that might include sample course syllabi/outlines, teaching evaluations and a statement of teaching philosophy and interests; samples of scholarly work; and three current letters of reference forwarded directly to the Department by the referees.

To ensure full consideration, complete applications and letters of reference should be submitted by November 15, 2005 to:

Dr. Brian J. Fryer, Director Great Lakes Institute for Environmental Research University of Windsor, Windsor, ON N9B 3P4 Phone: 519.253.3000, ext 2732, Fax: 519.971.3616 E-mail: bfryer@uwindsor.ca

Applications may still be received after the deadline date. If you are unable to submit the application by the deadline date, you should contact the Department Head to alert him that you intend to submit an application after the deadline date. If you are viewing the advertisement after the deadline date, you should contact the Department Head to find out the status of the search and discuss the possibility of submitting an application.

The University of Windsor is committed to equity in its academic policies, practices, and programs; supports diversity in its teaching, learning, and work environments; and ensures that applications from members of traditionally marginalized groups are seriously considered under its employment equity policy. Those who would contribute to the further diversification of our faculty and its scholarship include, but are not limited

to, women, Aboriginal peoples, persons with disabilities, members of visible minorities, and members of sexual minority groups. The University of Windsor invites you to apply to our welcoming community and to self-identify in your letter of application. Priority will be given to Canadians and permanent residents of Canada.

dheath@uwindsor.ca

UppsalaU PlantEvolEcol

Applications are invited for an Assistant Professorship/Research Associate in Plant Ecology at the Department of Ecology and Evolution at the Evolutionary Biology Centre (EBC), Uppsala University, Sweden.

Period of appointment: The position can be held for a maximum of four years.

Tasks: The position includes independent research, teaching within the undergraduate and/or postgraduate programmes in Biology at Uppsala University, and supervision of PhD students.

Eligibility: The successful candidate must have a Ph.D. Priority is given to applicants who completed their PhD within the last five years. Uppsala University's general employment regulations also require that teachers possess all skills necessary to carry out their duties proficiently.

The ability to teach in Swedish or English is a requirement.

Ranking criteria: In the ranking of eligible candidates, importance will primarily be given to scientific proficiency. In the assessment of scientific qualifications, special importance will be given to research in plant population ecology/genetics and evolutionary ecology.

Pedagogical and communication skills will also be considered. Pedagogical skills will be evaluated with respect to planning, teaching, supervision and examination.

Personal circumstances that may be of positive relevance in merit evaluation, for example parental leave, should be mentioned in the list of qualifications (CV).

Uppsala University aims at an equal representation of men and women in all positions. Since most teachers at the Faculty are men, women are particularly encouraged to apply for this position.

For further information please contact Professor Jon Ågren, e-mail:Jon.Agren@ebc.uu.se, phone +46 (0)18 471 2860.

How to apply: The application must be written in English. The applicant is required to submit three copies of documents, including a description of the proposed research plan, and two copies of publications according to instructions found on the web site http://-www.teknat.uu.se/english/instructions.php or ordered from Sofia.Wretblad@uadm.uu.se phone +46 (0)18 471 7137.

Applications should be directed to the Vice-Chancellor and mailed so as to arrive at Uppsala University, Registrar's Office UFV-PA 2005/3234, Box 256, S-751 05 Uppsala, Sweden, or fax +46 18 471 2000, no later than 7 December, 2005. A fax should be followed by a signed original of the application sent within a week after the deadline.

Jon Agren Dept. of Plant Ecology Evolutionary Biology Centre Uppsala University Villavagen 14, SE-752 36 Uppsala, Sweden Phone: +46-18-471 2860 Fax: +46-18-55 34 19

jon.agren@ebc.uu.se jon.agren@ebc.uu.se

WashingtonStateU BiomathModeler

We at Washington State University in Pullman are searching for an assistant professor whose speciality is mathematical modeling in biology. The research focus is broad, but applications from mathematical modelers with an evolutionary or ecological emphasis are very welcome.

The science ad is below. For more information see the full notice of vacancy at http://www.hrs.wsu.edu/-employment/FAPvacancies.asp?id=1786.

***

Washington State University Assistant Professor in Biomathematical Modeling

POSITION DESCRIPTION: Washington State University invites applications for a tenure-track position in Biomathematical Modeling at the Assistant Professor level. Candidates must have expertise in the broadly defined field of mathematical biology. Areas of interest can include a broad range of mathematical modeling approaches on any area in biology. These may include but are not limited to metabolics, physiology, devel-

opmental biology, population biology, and evolutionary biology.

The position will be in the Department of Mathematics, but may be split with the School of Biological Sciences depending on the expertise and interests of the successful candidate. This position will emphasize quality research, curriculum development and effective teaching. The ability to participate in collaborative and interdisciplinary activities is expected.

RANK/SALARY: This is a permanent, full-time (academic year), tenure- track position at the Washington State University (WSU) Pullman campus, Pullman, Washington. Appointment as Assistant Professor is commensurate with qualifications and experience. Salary is also competitive and commensurate with training and experience.

EFFECTIVE DATE: August 16, 2006 or later.

Required Qualifications: Earned doctorate at time of application and record of research accomplishment in mathematical biology.

Preferred Qualifications: Postdoctoral experience in mathematical biology; record indicating outstanding ability and potential in research and teaching; experience and/or interest in curriculum development in mathematical biology; and ability to communicate effectively with both students and colleagues.

Send letter of application addressing qualifications, curriculum vitae, statements of current and long-term research interests, teaching experience and philosophy, and arrange for three recommendation letters to be sent from people who can address your research potential, teaching and communication skills, to:

Biomathematical Modeling Search Committee c/o Pam Guptill WSU Department of Mathematics P.O. Box 643113 Pullman, WA 99164-3113

Formal screening of application materials will begin January 2, 2006.

Washington State University is an Equal Employment Opportunity/ Affirmative Action educator and employer.

– Richard Gomulkiewicz gomulki@wsu.edu PHONE: (509) 335-2527 FAX: (509) 335-3184 http://-www.wsu.edu/˜gomulki/ Department of Mathematics; P.O. Box 643113 or School of Biological Sciences; P.O. Box 644236 Washington State University Pullman, WA 99164 USA

WashingtonStateUVancouver EvolMicrobiol

We are searching for a tenure track microbiologist at Washington State University Vancouver. The research focus is open, but applications from microbiologists with an evolutionary emphasis are very welcome.

Here is the science ad. For more information see our web page.

POSITIONS IN MICROBIOLOGY AND GEOCHEMISTRY/ENVIRONMENTAL CHEMISTRY Washington State University Vancouver

Washington State University's Vancouver Campus and College of Science invite applications for a tenure-track Assistant or Associate Professor position with research emphasis in Geochemistry or Environmental Chemistry and a tenure track Assistant Professor with research emphasis in Microbiology. Successful applicants will teach two courses per year, advise both graduate and undergraduate students, and establish a productive, externally funded research program. Excellence in instruction and scientific research are the main criteria for selection. WSU Vancouver offers undergraduate and graduate programs and is expected to double its student body and faculty in the next 4-6 years. WSU Vancouver is located across the Columbia River from Portland, OR and offers significant opportunities for research, a variety of neighboring institutions and agencies for collaboration, and an excellent quality of life. Minimum qualifications: Microbiology: Ph.D. in a biological discipline. Geochemistry/Environmental Chemistry: Ph.D. in a chemistry-related discipline. Preferred candidates will demonstrate a commitment to working with diverse student and community populations. Additional information and full notices of vacancy for both positions is available at <http://www.vancouver.wsu.edu/programs/-sci/default.htm>http://www.vancouver.wsu.edu/-programs/sci/default.htm . Applicants should submit a curriculum vitae, copies of two publications, summary of research accomplishments, a statement of teaching interests, and three letters of reference; to Brian Tissot, Chair, Chemistry Search, OR John Bishop, Chair, Microbiology Search, Washington State University Vancouver, 14204 NE Salmon Creek Ave., Vancouver, WA 98686-9600. Review of completed applications will begin on November 30, 2005.

Washington State University is an equal opportunity/affirmative action educator and employer. Members of groups historically under-represented in science are strongly encouraged to apply

John Bishop, PhD. Associate Professor, School of Biological Sciences Washington State University, Vancouver 14204 NE Salmon Cr. Ave Phone: 360 546-9612 Vancouver, WA 98686 Fax: 360 546-9064 Home page: http://www.vancouver.wsu.edu/-fac/bishop/home-long.html

bishop@vancouver.wsu.edu

Other

ABI3100 CapillaryReInstallation

dear all,

we encountered a dramatic loss of quality when changing capillaries (e.g. exchanging the 36 cm to 50 cm) and installing the 36cm capillary again after some days; resolution was very bad from 150bp onwards; also when reinstalling the 50cm array this had bad quality from 200bp on.

We stored the arrays at room temperature in the lab on the shelf.

Can anybody give me some hints on changing and storing capillaries on the ABI 3100?

Thanks Walter

–

*** please note my new email address: Walter.Durka@ufz.de ***

Dr. Walter Durka UFZ - Umweltforschungszentrum Leipzig-Halle GmbH Department Biozoenoseforschung Theodor-Lieser-Straße 4 06120 Halle (Saale) Tel: (0345) 558-5314 Fax:(0345) 558-5329 Walter.Durka@ufz.de

UFZ - Centre for Environmental Research Leipzig-Halle Dept. of Community Ecology Theodor-Lieser-Straße 4 06120 Halle (Saale) Germany phone: +49-345-558 5314 fax: +49-345-558-5329 Walter.Durka@ufz.de

home: http://www.hdg.ufz.de/index.php?en=798 INVASIONS: http://www.ufz.de/index.php?en=2773

Alabama ID

Brian,

Could you post the following on evoldir?

Thanks, Jerry

If you've been following the news, you'll see that ID has recently made substantial inroads in the public consciousness. Although we had a small win in Dover, the Kansas shenanigans have reappeared, and the pro-ID "warning sticker" about evolution in Alabama was passed without a single opposing voice from the public (see story below). Where were Alabama's scientists? The Pope has also spoken up in favor of intelligent design.

Although all of us dislike having to fight these battles, I think it's time for all of us to organize locally and do what we can. The IDers are going to make their stand on the local level, and local scientists will be required to oppose them.

Please consider doing what you can if you have such a controversy in your state.

Thanks, Jerry Coyne

Alabama keeps its disclaimer on evolution School board approves statement calling it a 'controversial' theory

Updated: 9:20 p.m. ET Nov. 10, 2005

MONTGOMERY, Ala. - The state school board voted unanimously Thursday to keep a disclaimer in biology textbooks that describes evolution as "a controversial theory" after no one in the audience disputed the label, which has generated heated debate in the past.

The board, in its vote to accept a committee's recommendations of science textbooks, agreed to continue carrying the disclaimer, which calls evolution "controversial" in the first paragraph and adds in the second that any statement about the origin of life is "not fact."

State Superintendent Joe Morton, who recommended keeping the label in the texts, said he wasn't surprised that the subject received no discussion during the portion of the meeting devoted to public comment.

"I think people have generally reached a level of comfort with where we are," he said. "It's not like it just came up in Alabama - there's been 10 years of history associated with this."

School board member Betty Peters agreed, saying the lack of public debate was "because the insert has worked out."

Tired of battling? But Randall Johnson, who was a member of a 2001 panel charged with revising the science course of study, said supporters of the evolution theory are simply tired of battling the school board. Johnson was the only member of the panel to oppose the disclaimer.

"They know nothing is going to be done about it," said Johnson, who is the director of the Alabama Surface Mining Commission.

But, Johnson added, if calling evolution a controversial theory is "the only negative thing that comes out of (the disclaimer), that's not all that bad."

"They could have required the teaching of intelligent design or banned the teaching of evolution altogether," he said.

Board members said the purpose of the disclaimer is to give room to teachers who want to discuss alternative theories. "Teachers do have some concerns about

that," said school board member Randy McKinney.

He said that often teachers who want to teach alternatives to evolution, such as creationism or intelligent design, hesitate to do so, in fear of overstepping rules on the separation of church and state.

Upset about evolution? Intelligent design argues that natural selection, an element of evolutionary theory, cannot fully explain the origin of life or the emergence of highly complex life forms. Critics of intelligent design and creationism say they do not belong in a science curriculum.

Board members said teaching evolution will remain an issue that stirs convictions. They pointed to Kansas, where new science standards for public schools are getting national attention because critics see them as an attack on teaching evolution.

"I think people are upset about evolution all over America - it's a controversial topic," said Peters, who encourages teachers to teach alternative theories in addition to evolution.

Alabama remains the only state that carries such a sticker, according to the National Center for Science Education, which defends the teaching of evolution. Other states, including Georgia and Arkansas, tried similar stickers but are fighting legal battles over keeping them.

Three books rejected The 23-member textbook committee, which includes 14 educators, recommended dozens of science textbooks to be approved by the school board for Alabama students, but rejected three elementary-level books for containing material on evolution that was deemed "controversial" for that age group.

The books were considered supplementary readers, meaning they could not be used as the sole textbook in the science curriculum.

Each of the three elementary books that were rejected discussed evolution and natural selection, which were regarded "controversial material at a grade level that is not developmentally ready for such controversial material," according to a series of Sept. 28 memos sent to school board members.

— / —

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

AmNat new section

The American Naturalist is pleased to announce the revival of the "Natural History Miscellany," which appeared in the journal from 1867 to 1872. Its short observations of behavior and ecology–what often is referred to as "natural history"–were a mainstay of the journal for many decades thereafter.

Natural History Miscellany submissions should be short, preferably note length, contributions that not only enlighten our understanding of the natural history of a species in important ways, but also have significance beyond the biology of the species involved by their relevance to important conceptual issues or understanding of the dimensions of biological diversity. Authors are encouraged to take advantage of the recently lowered cost of color printing ($350 a page for ASN members, $400 a page for nonmembers) and the capabilities of online publication to illustrate manuscripts with online photographs, sound files, videos, and other electronic media.

If you have any questions, please let me know!

Take care, Trish Morse Managing Editor

The American Naturalist <amnat@press.uchicago.edu>

Ambiguous alignments answers

Hi everybody, here are the answers to my "ambiguos alignments"-post. Thanx to everyone who replied!

******

I've attached an article by Francois Lutzoni et al.,

Systematic Biology 2000. 49 (4): 628-651, that addresses this

problem. There may be other articles in this volume of Sys

Bio that are of interest as well

You might look for papers by Franois Lutzoni, who did some interesting recoding of variable regions in introns (or maybe in IESs).

Paper was within last 4 years...

The program INAASE (Lutzoni et al. 2000?) (google it) assigns step matrices for ambiguously aligned regions - check it out?

******

Comment: The Lutzoni et al. approach was designed for Maximum Parsimony. I'm not sure if it's appropiate in model-based frameworks. Furthermore, it also leads to a loss of information, because positional homology is completely ignored in ambiguous regions, as I understand it. Instead, all gaps are removed and every type of sequence is treated as a seperate character. Thus, the number of characters is reduced. I think, if the ambiguous region one is dealing with is short and contains few conserved blocks", this might be worth checking out. But for longer regions that contain large conserved blocks - such as in my case, where the ingroup taxa form a conserved block and only the few outgroup taxa are unalignable to the ingroup - the loss of information would be too high.

******

I have a similar issue and have tentatively concluded that it is okay to do as you suggested. As far as I can tell, it is not the amount of missing data that matters, but rather how much data is present. I have attached a few papers here that could be of use. Perhaps you know them already? The Wiens papers address the issue of missing data in general, and the Lutzoni paper has a small section in the introduction regarding coding ambiguously aligned regions as missing data.

******

Comment: For the Lutzoni paper, see above. The Wiens papers (see below) are very interesting. J.J. Wiens conducted a number of simulation studies, and the general outcome seems to be that it's indeed not the amount of missing data that can pose a problem. If enough information is present, phylogenetic accuracy is maintained, even if there are missing data. Actually, accuracy can be increased by keeping incomplete taxa or characters, because the overall number of data points is higher than in a total exclusion" approach. But check them out yourself:

Wiens, J. J. 2003. Incomplete taxa, incomplete characters, and phylogenetic accuracy: Is there a missing data problem? J. Vert. Pal. 23:297-310.

Wiens, J. J. 2003. Missing data, incomplete taxa, and phylogenetic accuracy. Syst. Biol. 52:528-538.

Wiens, J. J. 2005. Missing data and the design of phylogenetic analyses. Journal of Biomedical Informatics (in press)

see also:

Wiens, J. J. 1998. Does adding characters with missing data increase or decrease phylogenetic accuracy? Syst. Biol. 47:625-640.

******

I see this ass a risky strategy, because it is not clear in most cases how phylogenetic methods behave in the face of missing data points. You might consider comparing the output of your method when omitting ambiguous regions altogether with the inclusion strategy you are suggesting. If inclusion of the region, while omitting only the data from taxa making alignments ambiguous, changes any of the well- supported inferences of monophyly from the exclusionary analysis, then I would question the results of the inclusionary strategy.

******

Comment: Testing alternative alignments is always a good idea and should be done in any case (unless there's absolutely no ambiguity in your data...). But I think the results of an exclusionary strategy could as well be questioned, if the results from the two strategies are not compatible, given that the presence of too few characters can decrease phylogenetic accuracy. If the results of Wiens' simulation studies (see above) are applicable to real data (which is not too far fetched...), I would always prefer the inclusionary strategy, because it maximizes the amount of characters.

However, there might be no general advice. I think, it depends on the particular dataset you are analysing, and these issues might differ from case to case.

Unfortunately, nobody had any idea concerning the effect of missing OUTGROUP information for some characters. This might be a problem because character-states of the ingroup can't be correctly polarized. But does it pose a problem, when there are overall enough data from the outgroups? That is, how robust are phylogenetic analyses to this special case of missing data?

Any ideas?

Original post:

Hi everybody,

I have a question concerning ambiguously alignable regions in aligned nucleotide sequence data for phylogenetic analyses. Instead of

— / —

Anthocyanin Concentration

Hi EvolDir listers

I would greatly appreciate receiving any references to protocols for the quantitative analysis of Total Anthocyanin in plant tissues using a spectrophotometer/fluorometer. I plan to modify the protocol and use it on seagrass leaf tissues. I have come across many protocols using HPLC or other chromotographic techniques, facilities for which are currently not available at my institutute. Any pointers in this direction would be greatly appreciated.

Thanking you in anticipation

Sasi

nayar.sasi@saugov.sa.gov.au

sasidiver@yahoo.com.sg

Sasi Nayar, Ph.D

Research Scientist Environmental Assessment and Rehabilitation SARDI Aquatic Sciences 2 Hamra Ave., West Beach Adelaide, South Australia

Postal address : PO Box 120, Henley Beach, SA 5022

sasidiver@yahoo.com.sg

Assignment test

Hi:

I need to apply an assignment test for different populations, but I have many questions

1- Is it possible to use assignment test for allozymes data??

2- What is the best software for assignment test?

3- Using Arlequin software I get the likelihood for genotypes, but I don't get any probability to look for statistical differences in the genotypes asigned. How can I get that probability?

4. Using Arlequin, How do I do plotting, for example to plott the log-likelihood of individual sampled, what value of those that the sofware give me should I use as coordenates?, How do I choose one, are there any arguments to make the choice?

Many thanks,

Marcela P. Astorga O. email: marcelaastorga@uach.cl Universidad Austral de Chile

Azteca ant samples

Hello Evoldir people,

I'm currently studying dispersal and species coexistence in ants inhabiting Cordia nodosa in Peru. To do this, I need to sort out the various Azteca ant species (Dolichoderinae) that we find on this plant. Thus, I would need some samples of other Azteca species (at least 5 individuals/species) from other myrmecophytic trees for comparisons and a phylogeny. If you can help me, please contact me at this email address: g.debout@uea.ac.uk

Thanks,

Gabriel Debout School of Biological Sciences University of East Anglia Norwich NR4 7TJ United Kingdom E-mail: g.debout@uea.ac.uk

G.Debout@uea.ac.uk G.Debout@uea.ac.uk

BeckmanCoulter or AppliedBiosystems

Dear Evoldir readers, We are considering purchasing a BECKMAN COULTER CEQ 8000 series Genetic Analysis System for microsatellite genotyping and sequencing, and moving away from the comparable APPLIED BIOSYSTEMS machines (e.g., 3100, 3130, 3170). However, before we do spend the money, we would like to know if other members of the community have succeed in using the CEQ 8000 system. I would be grateful if anyone who has used a Beckman Coulter CEQ 8000 for either fragment analysis OR sequencing would let me know what they think of the system. I would be particularly interested in hearing from people who have used both Beckman Coulter CEQ 8000 and Applied Biosystems capillary machines, and are able to compare the two.

-Thanks very much Mike Goodisman

Michael A D Goodisman

Assistant Professor School of Biology The Georgia Institute of Technology Cherry Emerson Bldg A110 310 Ferst Drive Atlanta, GA 30332-0230 United States

webpage: http://www.biology.gatech.edu/-professors/goodisman.html profile: http:/-/www.whistle.gatech.edu/archives/04/-nov/08/spot.shtml spotlight: http://-www.gatech.edu/profiles/goodisman.php email: michael.goodisman@biology.gatech.edu office: 404-385-6311 lab: 404-385-6312 fax: 404-894-0519

michael.goodisman@biology.gatech.edu
michael.goodisman@biology.gatech.edu

BeckmanCoulter vs AppliedBiosystems answers

Dear Evoldir Members, Thanks very much for your replies to my recent question concerning the differences between Beckman Coulter and Applied Biosystems capillary machines. This seems to be a popular question, which comes up every 3-6 months. In the pages below, I have included all the responses I received, as well as previous responses to similar questions in the past year. I have removed names from the comments, to protect confidentiality. The comments concerning the CEQ8000 range widely from 'I have a Beckman CEQ8000 and absolutely love it.' to 'I am ready to throw my CEQ8000 out the friggin' window!'. At this point, we haven't decided which way to go, but we greatly appreciate your input.

-Sincerely Mike Goodisman

********** Michael A D Goodisman

Assistant Professor School of Biology The Georgia Institute of Technology Cherry Emerson Bldg A110 310 Ferst Drive Atlanta, GA 30332-0230 United States

webpage: http://www.biology.gatech.edu/-professors/goodisman.html profile: http:/-/www.whistle.gatech.edu/archives/04/-nov/08/spot.shtml spotlight: http://-www.gatech.edu/profiles/goodisman.php email: michael.goodisman@biology.gatech.edu office: 404-385-6311 lab: 404-385-6312 fax: 404-894-0519

Dear Evoldir readers, We are considering purchasing a BECKMAN COULTER CEQ 8000 series Genetic Analysis System for microsatellite genotyping and sequencing, and moving away from the comparable APPLIED BIOSYSTEMS machines (e.g., 3100, 3130, 3170). However, before we do spend the money, we would like to know if other members of the community have succeed in using the CEQ 8000 system. I would be grateful if anyone who has used a Beckman Coulter CEQ 8000 for either fragment analysis OR sequencing would let me know what they think of the system. I would be particularly interested in hearing from people who have used both Beckman Coulter CEQ 8000 and Applied Biosystems capillary machines, and are able to compare the two.

-Thanks very much Mike Goodisman

We have used both the CEQ8000 and the ABI3730 instruments for sequencing and fragment analysis. They are both good and reliable instruments. We found the instrument cost of the CEQ8000 to be very attractive. Unfortunately, the reagent costs for the CEQ8000 are more expensive (in our hands the ABI sequencing reagents can be diluted to 1:16) which may change if other companies start making these specific dyes. We started doing high-throughput sequencing and the CEQ8000 was unable to meet our needs. Otherwise, we probably would have stayed with the CEQ8000. Hope this helps.

We have used the CEQ8000 for a couple of years now and are VERY satisfied with it. I'm analysing microsatellites and it's working extremely well (after optimising of course). The people using it for sequencing are very happy with it too. I can really recommend it. After what I've heard the ABI is good too but we got a better deal for our money buying the CEQ. The software for analysing the fragments are included in the system and after what I've heard it costs a lot to get that extra for the ABI. That's something to consider too.

I have a Beckman CEQ8000 and absolutely love it. It has been very robust, easy to use, straight-forward to calibrate for our conditions etc. We used it all summer - actually I had 2 undergrads using it - I hardly touched it. We have had a couple of minor problems with it, mostly user errors, and the service people are terrific - the technical people as well. Beckman has been great to work with overall.

Capillary and gel costs are relatively high (~$480 per capillary array and ~$90 per plate of gel) but my memory of using the ABI system during my postdoc is that

it is also very expensive. One nice thing about the Beckman is that you do not have to change anything to do sequencing - as a matter of fact we ran a plate with mostly microsatellites and a row of sequence and it worked great. We also ran our capillary way past the 100 run limit with no problems at all. The WellRED phosphoramidite dye system is not yet common so you are a little stuck using Beckman's sequencing kit and fragment standard but eventually that will be available elsewhere. I haven't done a ton of data analysis on it yet but once you get past the user interface (which really isn't that tough) it seems to be very flexible and powerful - many different parameters you can work with.

We eventually plan to have our system on a rolling cart - no need to worry about lasers getting out of whack etc...

I highly recommend the CEQ 8000 - let me know if I can give you any other information...

———————-

— / —

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

Bootstraped NJtree

Dear Evoldir members,

I would like to draw an unrooted neighbour-joining tree with 33 populations of my study animal Rana esculenta. Since these frogs are hybridogenetic and the populations consist of diploid and triploid individuals I used haplotypes (based on microsatellites) in order to look at the structuring, by performing an AMOVA and calculating Fst values. I then used PHYLIP to draw such a tree based on these Fst values, but I have not figured out yet how to bootstrap in order to look how good this tree is. In PHYLIP (SEQBOOT) one can only infile data with gene frequencies, molecular sequences or restriction sites and NOT data with genetic distances (?).

Does anyone know if it is possible to draw unrooted neigbour-joining trees based on microsatellite haplotype data and also be able to then bootstrap ?

Thanks in advance for any help.

Martina

Martina Arioli Zoologisches Institut, Abteilung Oekologie University Zurich-Irchel Winterthurerstrasse 190 8057 Zürich Tel. +41 44 635 49 87 e-mail: marioli@zool.unizh.ch www.zool.unizh.ch

Codivergence analyses

Dear Evoldir members,

does anyone know a means of testing for parallelism between two parasite phylogenies (within the same genus) using a method that does not rely on a host-parasite framework e.g. TREEMAP and TREEFITTER? Pairs of parasite races, one race from each phylogeny, share the same host plant species. There are 12 such pairings and all on different host species. We are not looking to model switching events, etc, but attemting to evaluate whether isolating episodes of host plants are reflected in both the parasite trees.

Have a goodie, Mike.

Michael McLeish School of Biological Sciences Flinders University Bedford Park South Australia, 5042

Ph: 61-8-8201 5112 Fax: 61-8-8201 3015

michael.mcleish@flinders.edu.au

ConGen visiting fellowships

ANNOUNCEMENT: ConGen Call for Applications - Final Reminder

Dear Evoldir Members,

The European Science Foundation Programme on Integrating population genetics and conservation biology: merging theoretical, experimental and applied approaches (ConGen) is offering funding for a number of Short Visits (up to 15 days) and Exchange Grants (from 15 days to 6 months) related to the scientific objectives of the Programme Please note that the Steering Committee will fund only sufficient high-quality applications. Junior applicants with little experience in writing a proposal are therefore strongly recommended to ask advice from their senior local and/or host supervisor on these matters.

The next deadline for applications is 15 November

2005. To apply please visit http://www.esf.org/-esf_article.php?language=0&domain=3&activity=-1&article=443&page=1157

ConGen invites proposals from potential organisers of WORKSHOPS to be held in 2006 on topics with a clear connection to the Programme.

The Steering Committee welcomes all proposals that fall within the scope of ConGen but is particularly interested in receiving proposals targeted at the following issues:

1. Use and abuse of molecular genetic markers in conservation genetics:

Including questions as: How these markers can be used to infer population structure, gene flow and demographic parameters? Can the different processes that lead to similar patterns of genetic structure be distinguished? Can they be used to signify causal processes as habitat change, fragmentation or disturbance? Use and limitations of (existing) software packages.

2. Level of Genetic variation and the short- and long-term fate of populations: Causal relationship with fitness, adaptive potential and survival:

Discussing issues as: (i) relevance of neutral genetic markers versus selective variation; (ii) quantitative variation versus major genes; (iii) local adaptation versus plasticity; (iv) local adaptation and gene flow; (v) is the level of genetic variation a limiting factor?

3. Scaling issues in conservation genetics:

Raising questions as: To what extent can genetic measures that normally are used to study gene diversity, demography and dispersal at the population and species level be up scaled to higher levels of biological organisation? Can genetic measures be developed to investigate diversity and its dynamics at the community level? How is the distribution of biodiversity (across Europe) affected by different spatio-temporal scales and are standard population genetic processes and approaches adequate to illuminate this?

Priority will be given to workshops taking place in countries that financially support the Programme (Austria, Belgium, Croatia, Czech Republic, Denmark, Finland, Hungary, the Netherlands, Norway, Spain, Sweden and Turkey).

ConGen will provide a maximum of 20 000 EUR per workshop.

The next deadline for applications is 15 November 2005. To apply please visit http://www.esf.org/-esf_article.php?language=0&domain=3&activity=-1&article=443&page=1158

Application forms and further information can be obtained at http://www.esf.org/congen Kind regards,

Helena

Helena Wurtz Life, Earth and Environmental Sciences (LESC) Unit European Science Foundation 1 quai Lezay-Marnesia BP 90015 67080 Strasbourg Cedex France phone: +33 3 88 76 71 22 fax: +33 3 88 37 05 32 E-mail: hwurtz@esf.org

Helena Wurtz <hwurtz@esf.org>

DNA from carbonized seeds

Dear evoldir members,

We are interested in analyzing carbonized seeds from an archaeological deposit. Could anyone tell me if there is any protocol to extract DNA from vegetal carbonized seeds?.

I will be thankful for your help

Miguel Angel

Dr. Miguel Angel González Pérez Departamento de Biología Campus Universitario de Tafira Universidad de Las Palmas de Gran Canaria 35017 Las Palmas Islas Canarias Spain

Phone: +34.298.45.45.43 Fax: +34.928.45.29.22 e-mai: HYPERLINK "mailto:mgonzalez@becarios.ulpgc.es"mgonzalez@becarios.ulpgc.es

mgonzalez@becarios.ulpgc.es

DNA from feces

Dear all, we will soon start a sampling of feces for dna extraction. I 've seen that there is a variety of methods available. However, since I have no experience with extracting dna from feces, I need someone's help to choose the most effective method. Basically, some procedures recommend to scrape the outermost layer from the scat and deep freeze it (or use ethanol). Others, are based on the use of silica with the purpose of dehydrating the sample. In this second case the extraction would be done later (even after months!, by using an aliquot of the scat [see "Quantitative polymerase chain

reaction analysis of DNA from noninvasive samples for accurate microsatellite genotyping of wild chimpanzees (Pan troglodytes verus). Molecular Ecology (2001) 10, 1835-1844"]. Needless to say that we would like to receive any help, hint, suggestion that can help optimize our collecting strategy. We would like to use the dna extracted by using one of these methods for pcr amplification of both mtDNA and microsats.

Thanks a lot

Gabriele

Gabriele Gentile, Ph.D. Research Associate Department of Biology Tor Vergata University Via della Ricerca Scientifica 00133 Rome, Italy

phone: +39 06 72 59 59 77 fax: +39 06 72 59 59 65 email: gabriele.gentile@uniroma2.it

DNA from feces answers2

Dear all, Some colleagues who just kindly answered me noted that success in the technique very much depends on the animal. Stupid of me not to mention that we will be dealing with carnivors (mustelids). Any additional help is appreciated! thanks Gabriele

Dear all, we will soon start a sampling of feces for dna extraction. I 've seen that there is a variety of methods available. However, since I have no experience with extracting dna from feces, I need someone's help to choose the most effective method. Basically, some procedures recommend to scrape the outermost layer from the scat and deep freeze it (or use ethanol). Others, are based on the use of silica with the purpose of dehydrating the sample. In this second case the extraction would be done later (even after months!, by using an aliquot of the scat [see "Quantitative polymerase chain reaction analysis of DNA from noninvasive samples for accurate microsatellite genotyping of wild chimpanzees (Pan troglodytes verus). Molecular Ecology (2001) 10, 1835-1844"]. Needless to say that we would like to receive any help, hint, suggestion that can help optimize our collecting strategy. We would like to use the dna extracted by using one of these methods for pcr amplification of both mtDNA and microsats.

Thanks a lot

Gabriele

Gabriele Gentile, Ph.D. Research Associate Department of Biology Tor Vergata University Via della Ricerca Scientifica 00133 Rome, Italy

phone: +39 06 72 59 59 77 fax: +39 06 72 59 59 65 email: gabriele.gentile@uniroma2.it

DNA sequencing survey

Calling all operators of AUTOMATED DNA sequencers!

The DNA Sequencing Research Group (DSRG) of the Association of Biomolecular Resource Facilities (ABRF) invites all laboratories involved in DNA sequencing applications to participate in an on-line survey.

The goal of this survey is to capture the current profile of DNA sequencing facilities in both the academic and commercial sectors, from individual research labs to structured core facilities and genome centers. Through comparison to previous studies, the impact of current instrumentation on sample throughput, data turnaround time, staffing and pricing will be assessed. We anticipate that these results will serve as a benchmark against which institutions can compare their respective core facilities.

The survey is available until December 31st , 2005 at http://www.cores.utah.edu/surveyor/index.php?sid=1 Preliminary results will be presented at the annual ABRF meeting in Long Beach, CA, in February, 2006. The complete study will be published in the Journal of Biomolecular Techniques (JBT) later in the year.

Thank you for your support and participation.

Helaman Escobar

Helaman Escobar, Director DNA Sequencing & Genomics Core University of Utah

Phone: (801) 581-4736 Fax: (801) 585-2978

Helaman.Escobar@cores.utah.edu

Diversity project

Dear Colleagues,

We are beginning recruitment for The Diversity Project, a research opportunity at Boston University

for under-represented minority undergraduate students . Students will integrate hands-on field research on Indonesian coral reefs and cutting edge genetic research at the Marine Biological Laboratory, Woods Hole, Massachusetts. The project will explore the origins marine biodiversity in an effort to improve conservation of these remarkable ecosystems. Students are fully funded for both living and travel expenses. Visit http://-/people.bu.edu/pbarber/Intro.htm for more information and on-line application. This research opportunity promises to be a remarkable personal and professional experience. Please encourage any students whom you believe would benefit from such an experience to apply. For further information, please contact Dr. Paul Barber (pbarber@bu.edu). We look forward to hearing from you.

Sincerely, 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 http://-people.bu.edu/pbarber/ pbarber@bu.edu

Drosophila Balancers

I may be too used to working with model Drosophila species, but are there balancer stocks for affinis or obscura subgroup species? I am specifically looking for balancers for Muller's C and/or Muller's E. If you have any in your lab or know of someone who might, I would greatly appreciate a response.

Thank you.

~~~~~~~~~~~~~~~ Rich Meisel meisel@psu.edu

EtBr dangers

Dear All, Does anyone of you know "serious" publications about how hazardous is EtBr to humans (as whole entities, not as single cells)? I know people who do not care for EtBr at all. I've heard also that ethidium bromide is or was used as trypanosomid in African cattle. On the other hand, chlorophorm can burn your eyes, acrylamide can affect your neural system, and guanidine thiocyanate can even kill you dead. In this light, calling EtBr "one of the most hazardous standard reagents" is in my opinion an overstatement. Of course, one have to be careful but it's nothing unusual in the lab. I do not claim ethidium bromide is safe, I just wonder how careful I should be. It's better to know the truth before you start pumping public money to private companies. How about bird flu in the lab? ;-) Best regards, Maciek

konopinski@iop.krakow.pl konopinski@iop.krakow.pl

EtBr dangers answers

Dear Scientists, Some two weeks ago I have posted a question about "serious" publications about how hazardous Ethidium Bromide can be to humans. I did not get much response. I have even started to worry that this "summary" may provoke another discussion about belief and science ;-) Other DNA staining reagents might also cause cancer, but as they are new it is possible that they were not thoroghly tested. Some people suppose that detoxication methods may be more harmful to humans and the environment than EtBr itself. Thus my advice is:

BE CAREFUL but DON'T PANIC

...and "just in case" and/or for the sake of religious tolerance one should not expose other beings to EtBr. It's not worth dying in the lab but I'm not going to give up good old EtBr. The most comprehensive reply you will find below. Best wishes Maciek Konopinski

—— I'm too idle and pre-occupied to go looking for the papers I collected some yrs ago when I was divisional safety officer, but there is a literature, albeit a bit ambiguous, and a suitable database search ought to find it. My assessment of it was:

(a) that evidence for the mutagenicity/carcinogenicity of EtBr in its native state was not totally clear, in part because it is said that this class of chemical does not penetrate nuclear membranes. On the other and it can be used to stain chromosomes/DNA in whole mounts of cells, so his may not be true, and it _is_ mutagenic in the Ames test with the addition of microsomal extract, i.e. when activated.

(b) there is good evidence that some hypochlorite degradation products of EtBr are highly mutagenic (Ames) without activation.

(c) on general principles, intercalating agents _ought_ to
~~~~~~~~~~~~~~~

be mutagenic/carcinogenic if they gain access to DNA. (d) I believe that the international agency that tests potentical carcinogens (IARC) has reported it as being hazardous.

Therefore laboratory work should assume the worst and take all appropriate precautions.

Furthermore, labs include people who have not made the explicit Mephistophelian bargain that it involves - to run some personal risk for the sake of the results. Cleaners, for example. Therefore the only responsible procedure is to treat it as a dangerous carcinogen/mutagen and minimise local environmental contamination. For that reason we enforce post-staining with dilute EtBr and water-washing before taking a gel to a transilluminator - to avoid the hazard of breathable particles of dried buffer salts/EtBr being mobilised and inhaled by cleaners (or ourselves). Such particles would (in theory) be particularly dangerous.

Because EtBr also binds to proteins, I am personally (and when I was safety officer, institutionally) relaxed about allowing very dilute solutions to be disposed of into the public drainage system. There it will be further diluted and will always be mixed with/bound to an excess of protein and bacteria. This is another theoretical argument, not based on direct evidence.

I hope that this is both helpful and correct.

BLC

konopinski@iop.krakow.pl

EvolEcol PlantReproduction

Subject: Book Evolutionary ecology of plant reproductive strategies

We hope the moderator allows us to plug our book "Evolutionary ecology of plant reproductive strategies" that just came out with Cambridge University Press. See http://www.cambridge.org/uk/catalogue/-catalogue.asp?isbn=0521528941 The book should have something of interest for many list members, not just for the botanists. We would like to thank everybody who sent us their articles after a posting a message at evoldir, nearly four years ago, when we began to work on this.

Tom de Jong (dejong@rulsfb.leidenuniv.nl) Peter Klinkhamer (klinkhamer@rulsfb.leidenuniv.nl)

Fast Nonsynonymous

Dear colleagues

The conventional methods for estimating nonsynonymous substitutions (Ka or dN) do not distinguish between different kinds of amino acid changes. We are publishing a method in MBE (A new method for estimating nonsynonymous substitutions and its applications to detecting positive selection) that permits such a distinction. On average, Kh (substitutions of high-exchangeability amino acids) is about twice the conventional estimate of Ka but of course fluctuates from gene to gene.

You can download the program from

http://home.uchicago.edu/ ~ htang/Research/-programs.html Sincerely, Hua Tang and Chung-I Wu

Chung-I Wu <ciwu@uchicago.edu>

Fu fs

I was wondering if anyone knows of a program that will calculate Fu's fs for a batch of files (one file at a time). I am trying to re-sample my data and would like to be able to calculate Fu's fs for multiple fasta files (or whatever file type is necessary). Thanks.

Maya Metni Pilkington University of Arizona mcmetni@email.arizona.edu

Maya Pilkington <mcmetni@email.arizona.edu>

Gel documentation

Hello all,

I am looking for a simple cost-effective digital gel-doc system. Anyone have a recommendation?

Many thanks!

Anne peters@orn.mpg.de –

Dr Anne Peters Behavioural Ecology of Sexual Signals Group Max Planck Institute for Ornithology Vogelwarte Radolfzell Schlossallee 2 D-78315 Radolfzell Germany

Phone +49 (0)7732-150153 Fax +49 (0)7732-150139

http://www.ornithol.mpg.de/ Anne Peters <peters@orn.mpg.de>

HumanGeneticDatabases answers

Dear Evoldir,

Many thanks for your replies to the following question - please see below the original query plus a sample of replies to cover all the new information gained: ———

Dear Evoldir readers, I am wondering whether anyone is aware of the availability of electronic or online human population genetic diversity databases? I am interested in collating information on global human genetic diversity in both neutral genetic markers such as microsatellites and in classical genetic markers such as blood group polymorphisms. Any suggestions or comments relating to this issue are gratefully accepted, Yours sincerely, Noreen von Cramon ————

This may be helpful:

http://alfred.med.yale.edu/alfred/index.asp
Oliver Ryder ———— I used the microsatellite database for my population genetics course, which can be downloaded at: http://-rosenberglab.bioinformatics.med.umich.edu/ Good luck, Joe Williams ~~~~~~~~~~~~~~~~~~~~~~ Joseph H. Williams Assistant Professor Department of Ecology and Evolution 1406 Circle drive/Hesler building University of Tennessee Knoxville, TN 37996-1100 Phone: 865-974-6202 Fax: 865-974-6042 Email: joe.williams@utk.edu ~~~~~~~~~~~~~~~~~~~~~~ ——— Hi

Noreen, Don't know if this is exactly what you're looking for, but the Nickerson lab in Washington has been sequencing hundreds of genes in a multi-population panel of DNAs. All the details are available from the Seattle SNPs website at http://pga.gs.washington.edu/ . Stuart

I think that what you are looking for is HGVBase: http://hgvbase.cgb.ki.se/ It's currently under transition to something new, but it is still a very comprehensive database of normal genetic variation in humans. Good luck,
Lev Yampolsky ———————- Dear Noreen, I read your note
on the EvolDir website this morning and was interested to read that you are searching for online human genetic diversity databases. So are we! We have found a couple which may be of interest.

1) First is the CEPH genotype database at www.cephb.fr/cephdb/ This contains the the 5000+ microsatellites used by Dib et al to build a linkage map of the human genome (Nature: reference on the website). They were all run on 3 generations of 8 families (grandparents, parents and children. And when I say children, I mean lots: most have around 15! Some microsat loci have been run on other families as well. You can look at individual families on the net or download all of them (we wrote our own program to do this). Note that we discovered some of the genotyping by some researchers does not match that by others. Also the stated heterozygosities on the website use a completely different calculation (with different results) to that in the original publication, although they don't mention it. We have spent some time working out what is going on with this database and I would be happy to pass on some of our acquired wisdom. For example, some of the grandparents are related to grandparents in other families. There is also a list of which familiy comes from where (Utah, France, Venezuela for the main 8-family database). This database now includes thousands of SNP loci as well, although we have not used it. The index page at www.cephb.fr has links and information on this and more.

2) We recently found the Marshfield dataset: 1000+ individuals from all over the world, run on 400+ microsatellites at 10cM intervals across the genome. The genotypes can be dowloaded as an Excel file (huge!). This is all at http://research.marshfieldclinic.org/-genetics/Freq/FreqInfo.htm together with background and references. We have stopped using this as each population often had only 50 or 60 individuals and for some reason old world countries only had one or two females genotyped, compared with 20 or 30 males, the new world countries and Europe had almost the reverse. The original authors used the data to group humans into 5 main regions.

I'd be very interested to hear what it is you are looking at (also if you have since come across any other databases). We are currently in the midst of analysis, but are looking at issues surrounding heterozygosity, its

— / —

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

Individual Primer Number answers

Dear all, Here are the answers to my "Individual Primer Numbers" question. Many thanks to some colleagues who just kindly answered me.

Please see below the question and replies. momonga.

———— Q. Dear all,

I plan to look at population genetic structure of a mammal species with microsats. About 30 populations will be selected from the whole range (North America) of the species. Many suggest about 20 individuals per population and 15-20 markers (primer sets) would be appropriate for the study. However, I wonder how to decide these numbers (individual#-primer# combination). Could you give any answer or reference for this ?

———— 1. It depends upon the question you are trying to ask and the specificity of your markers. The sweet spot for _maximum_ utility for all possible question, 6 loci with 6 makers total are about right. Unless you are doing spatial autocorrelation or paternity, it is my opinion that 15-20 markers is simply going to waste your money. If you cannot figure out what is going on with about half that, your trying to pick up very vague data. One way to tell is to look at the variance of your estimators. Once the variance of your parameters settle down, you have the right number of inds/markers per stratum. There is an example of this at: Dyer, R.J. & V.L. Sork. 2001. Pollen Pool Heterogeneity in Shortleaf Pine, Pinus echinata Mill. Molecular Ecology 10: 859-866. You can grab a pdf from my server if you like. – Rodney J. Dyer, PhD Department of Biology Center for the Study of Biological Complexity Virginia Commonwealth University ————- 2. It depends exactly what your questions are. For general population genetics, the numbers of samples and loci you suggest sound fine (and I would not get too bogged down worrying about exactly the balance between samples and loci), but for most population biology applications you would be well advised to use some markers that can be sequenced (most obviously a mtDNA marker, screened by sequencing all individuals, or SSCP+some sequencing, or equivalent depending on what is convenient and cost effective for you). There are some investigations for sensitivity for specific applications, eg Title: Individual-based genotype analysis in studies of parentage and population assignment: how many *loci*, how many alleles? Author(s): *Bernatchez L* Source: CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES 57 (1): 1-12 JAN 2000 I attach a couple of papers on the general issue of the importance of obtaining and analysing different sorts of data in population genetics. yours P – Dr Paul Sunnucks Senior Lecturer in Zoology School of Biological Sciences Monash University, Melbourne ———————- 3. Steven Kalinowski from Montana State University has published some articles on this topic which are available on his website: http://www.montana.edu/kalinowski/kalinowski_publications.htm dieter. – The Great Gorilla Run 2005 Please support us at http://www.justgiving.com/DNAPES2005 Dieter Lukas Max Planck Institute for Evolutionary Anthropology

eos@owl.forestry.uga.edu

Individual Primer numbers

Dear all,

I plan to look at population genetic structure of a mammal species with microsats. About 30 populations will be selected from the whole range (North America) of the species. Many suggest about 20 individuals per population and 15-20 markers (primer sets) would be appropriate for the study. However, I wonder how to decide these numbers (individual#-primer# combination). Could you give any answer or reference for this ?

Thank you all in advance.

momonga momonga3@hotmail.com

Labelled dntps Genescan

Hello all, I would like to know whether anyone has tried to use fluorescently labeled dntps to amplify fragments to run on a Genescan fragment analysis. Specifically, we would like to use labeled dntps to test microsatellite primers for polymorphism on a AB3100. Applied

Biosystems does not seem to supply labeled dntps, yet another company jenabioscience can supply us with 6-Fam dctp's. Basically, I would like to know of anyone's successes or failures with this approach since we are evaluating it against adding a m13 tail to all our forward unlabeled primers and then amplifying with a labeled m13 forward primer. Your comments are much appreciated. cheers ./w

Wayne Delport Molecular Ecology and Evolution Programme Department of Genetics University of Pretoria Pretoria South Africa +27 12 4204402

"640K ought to be enough for anybody" Bill Gates, 1981

"I love deadlines, I love the whooshing noise they make as they go by." Douglas Adams

wdelport@postino.up.ac.za

LarrySandler Award Nominations

Dear Colleagues:

Each year one of the highlights of the Drosophila Research Conference (http://www.drosophila-conf.org/) is the announcement of the Larry Sandler Award winner. The Award, established in 1988, honors Dr. Sandler for his many contributions to Drosophila genetics and his exceptional dedication to the training of Drosophila biologists.

Any student completing his/her Ph.D. in an area of Drosophila research in 2005 is eligible and may be nominated by his/her dissertation advisor. The winner will then be invited to be a featured speaker at the 47th Annual Drosophila Research Conference in Houston, March 29-April 2, 2006.

Nominations, including curriculum vitae, one or two page thesis abstract and a letter of nomination from the advisor, should be sent to me, R. Scott Hawley, at Stowers Institute for Medical Research, 1000 E 50th Street, Kansas City, MO 64110, USA. You can also e-mail (rsh@stowers-institute.org) or fax (816/926-2060) your nomination. Nominations must be received by December 31, 2005.

R. Scott Hawley Stowers Institute for Medical Research 1000 E 50th Street Kansas City, MO 64110 USA. e-mail: rsh@stowers-institute.org telephone: 816/926-4427 fax: 816/926-2060

"R. Scott Hawley" <rsh@stowers-institute.org>

MegaFluor EthBr alternative

Dear collegues,

one of the most hazardous standard reagents in molecular labs is ethidium bromide used to detect nucleic acids. Some alternative fluorescent dyes (like Sybr Green) are reportedly less mutagenic but still constitute health hazards.

Lately I found out that there might be a safe alternative to ethidium bromide. The dye is called "MegaFluor", produced by EuroClone (http://-/www.euroclone.net/) and distributed e.g. by Gentaur (http://www.gentaur.com/acatalog/-GENTAUR_Reagents_3_212.html). According to the manufacturer this dye is non-toxic because it is too big to pass through cellular membranes (http://www.euroclone.net/prodotti/pdf/datasheets/-EMR051500.pdf) and it is therefore recommended by the Health and Safety Department of the University of Edinburgh (http://www.safety.ed.ac.uk/resources/-General/EthBrAlt.shtm).

However, since the product is not cheap, and I don't know anybody who has used this product successfully, I would like to ask if somebody has any experience with it. Principally I would prefer using a non-toxic alternative to stain DNA, especially for student courses, even if it is more expensive.

I guess the answers to this question will be of interest to many other people working in molecular labs. Therefore I will post a summary of the results (if any).

Best wishes,

Martin

Dr. Martin Wiemers Department für Populationsökologie Fakultät für Lebenswissenschaften Universität Wien Althanstr. 14 A-1090 Wien Austria Tel. +43 1 4277 57403 e-mail: martin.wiemers@univie.ac.at http://www.univie.ac.at/population-ecology/ martin.wiemers@univie.ac.at

Mercer Award Nominations

Fellow Evolutionary Ecologists:

I'm soliciting nominations for this year's George Mercer Award from the Ecological Society of America. If you've read an outstanding ecological research paper published in the past two years by a lead author 40 years of age or younger at time of publication, think about nominating it for the award (hint: If you're eligible, you could also ask someone to nominate your paper!). Note that the nomination is for a paper, not a person! NOMINATIONS SHOULD BE RECEIVED BY DECEMBER 31, 2005. Details below.

Ellen Simms

George Mercer Award

The Mercer Award is given for an outstanding ecological research paper published by a younger researcher (the lead author must be 40 years of age or younger at the time of publication). If the award is given for a paper with multiple authors, all authors will receive a plaque, and those 40 years of age or younger at the time of publication will share the monetary prize. The paper must have been published in 2004 or 2005 to be eligible for the 2005 award. Nominees may be from any country and need not be Ecological Society of America (ESA) members. Papers need not have been published in an ESA journal. Recent recipients include Jean L. Richardson, John Stachowitz, and Daniel Bolnick. NOMINATIONS SHOULD BE RECEIVED BY DECEMBER 31, 2005

Nominations should be sent to Ellen Simms, Chair, Mercer Award Subcommittee (<mailto:esimms@berkeley.edu>esimms@berkeley.edu).

esimms@berkeley.edu

Microsat Double Peaks answers

Microsatellite Double peaks

Dear Evoldir members Many thanks for all your comments on (trouble)shooting the double peaks during fragment analysis using trinucleotide microsatellite markers. It was great to receive so many suggestions by evoldir members from all over the globe. Many thanks for this! I compiled a brief summary of the main suggestions. I hope that it will be of help for others who are facing similar problems.

Best wishes Velavan velavanp@yahoo.com

Suggestions as provided by Evoldir members are listed below.

The presence of double peaks are most likely due to incomplete adenylation of my fragments by Taq polymerase, producing A overhangs and resulting in two peaks for each allele, which then differ by a single base. You can solve this by either taking away the A from all the peaks or forcing everything to be plus-A, which is the easiest.

The most prominent way to get over this is by Pigtailing your unlabelled primer at the 5 end (Brownstein et.al 1996 BioTechniques; Magnuson et.al 1996 BioTechniques). This should lead to complete adenylation of all fragments.

Other suggestion that could be tried out are

1. Add a 45 minute to 1 hour step at 60 degrees (alternatively 72oC) immediately after the last cycle (So no final extension at 72 degrees). This step provides no free nucleotides left. All amplicons will have an A overhang (plus-A). 2. Use less template DNA. 3. Tryout Touch down PCR 4. Try Different MgCl2 Concentrations ranging from 1mM to 6mM. 5. After PCR completion, leave your PCR products at room temperature O/N or Deep freeze it. 6. Use Mungbean nuclease to get A molecules by polishing the product 7. Usage of Pfu polymerase enzyme or a combination of Pfu and the normal Taq (As Pfus are expensive) to get rid of A overhangs during amplification (thanks to the proofreading activity of Pfu) 8. Use Invitrogens Tsp DNA polymerase or GENOTYPE Tsp DNA polymerase by Life technologies (which lacks terminal transferase activity) 9. Perhaps you can also dilute your PCR product before loading it to the capillaries. 10. Add 0.4U T4 polymerase to 10ul of your PCR product, incubate at 37oC for 30 min, in order to obtain equally sized fragments.

T.P.VELAVAN Department of Animal Evolutionary Ecology Zoological Institute University of Tuebingen 5P 37 Auf der Morgenstelle 28 E 72076 Tuebingen Germany Office:0049-7071-2974841 Residence:0049-7071-964735 Mobile:0049-176-24199950 Fax: +49-7071-295634 e-mail: velavanp@yahoo.com, velavan@uni-tuebingen.de http://www.uni-tuebingen.de/evoeco/ Velavan <velavanp@yahoo.com>

Microsat double peaks

Dear Evoldir Members,

I am expereincing a problem during fragment analysis of trinucleotide microsatellite markers for earthworms (Lumbricus terrestris). The problem is that I get double peaks for the expected fragment size. The difference between the two peaks is ca. 1 basepair and thus clearly less than the repeat unit. I tried out different strategies to get rid of the double peaks, including: i) HPLC purified primers to ascertain that the two primers used per locus really have the right size. ii) different MgCl2 concentrations (2, 2.5, 3, 4, 5, 6, 7 mM) iii) variation of extension time (no extension at all (direct step from annealing to denaturation); 1 min; 2min, 2:30min) iv) variation of the final extension time (no final extension step; 5 min; 20 min; 30 min) v) different annealing temperatures (50, 52, 55, 57, 60, 65 oC) vi) variation of cycle number (25, 30, 35) vii) hotstart Taq (AmpliTaq Gold), normal Taq (invitrogen, bioline) All PCR reactions were done in Eppendorf thermocyclers. The general cycling conditions are: 5' 94oC, then 35x: 1' 94oC, 1' 60oC, 1' 72oC, followed by a final extension of 5' 72oC. For exceptions see above. PCR products were not specifically purified. Fragments were separated on an ABI 3130XL with fluorescently labelled primers and standard running conditions (dilution in HiDi formamide; prior denaturation of PCR products, etc).

At the moment, we are running out of ideas what to change. Therefore, I would be very grateful if you could send me further suggestions, which may help to get rid of these double peaks..

cheers

Velavan Velavanp@yahoo.com

T.P.VELAVAN Department of Animal Evolutionary Ecology Zoological Institute University of Tuebingen 5P 37 Auf der Morgenstelle 28 E 72076 Tuebingen Germany Office:0049-7071-2974841 Residence:0049-7071-964735 Mobile:0049-176-24199950 Fax: +49-7071-295634 e-mail: velavanp@yahoo.com, velavan@uni-tuebingen.de http://www.uni-tuebingen.de/evoeco/ "Greater the gifts Greater the Responsibilities"

velavanp@yahoo.com

MolEcol Book

Dear all,

Some of you might be interesting to know that my new Molecular Ecology book will be available starting next week, published by Wiley & Sons. This is a comprehensive text with chapters on markers, population genetics, phylogeography, behavioural ecology, conservation genetics, and some of the more general applications of molecular ecology (e.g. relevance to law enforcement, agriculture, and so on). There's lots of info in there - over 700 references - and it is generally aimed at upper level undergraduates, grad students, and researchers. If you would like any more info on this you can get it from Amazon or from the Wiley website (I won't give a url because in both cases it will depend on which country you're in).

Cheers Joanna

Dr. Joanna Freeland Lecturer in Molecular Ecology Department of Biological Sciences Walton Hall Open University Milton Keynes MK7 6AA Tel. 01908 659228 J.R.Freeland@open.ac.uk http://www.open.ac.uk/-science/biosci/research/ecology/joanna.htm

MultiLocus Frequencies answers

Thanks to everyone who responded to my email.

It seems I should have mentioned that I work with cyclical parthenogens and thus was literally wanting counts of the number of individuals that share the same multilocus genotype (clonal diversity) in each sample. That appears to have caused some confusion, so sorry about that!

———— 1) One respondent did recommend a program that will calculate exactly that: (Thank-you Mark) GenoType/GenoDive Applications for analysis of genetic diversity of asexual organisms User's manual 11-oct-2004 Patrick MeirmansI.B.E.D. Universiteit van Amsterdam Kruislaan 318,1098 SM, Amsterdam, The Netherlands http://www.science.uva.nl/~meirmans ———— 2) I also received many answers for various related statistics.

Genepop, MSA and PyPop all calculate single locus allele and genotype frequencies, HW etc.

http://wbiomed.curtin.edu.au/genepop/-index.html http://i122server.vu-wien.ac.at/MSA/-MSA_download.html http://www.pypop.org/ FSTAT and Arlequin also calculate related statistics.

————- 3) For those interested in going deeper:

Are you assuming linkage equilibrium? If so, the problem should be simple. But if you assume LD, then

you have to make some simplifying assumptions - for example, that LD is due to population mixing. Otherwise, there are far too many genotype frequencies to estimate.

I have a paper on this issue (Heredity 2000), and it is closely related to programs such as Structure (Pritchard et al) that fit models of admizture. There are Mathematica programs that do the estimation at http://-helios.bto.ed.ac.uk/evolgen under Multilocus. (After loading, look in the Help Browser under "Estimating disequilibrium"). But, they don't cope with multiple alleles & so wouldn't be much help for microsatellites

BARTON, N. H., 2000 Estimating multilocus linkage disequilibria. Heredity 84: 373-389.

Again, thank-you to everyone who kindly responded! I do appreciate it! Desiree

– Desiree Allen

Dept. Ecology, Evolution and Behaviour Indiana University 1001 East 3rd Street Bloomington IN 47405

Ph: (812) 856-0115

deeallen@indiana.edu

MultiLocus Genotype frequencies

Dear all, I was wondering if anyone knows of a program that will calculate the frequency of multi-locus genotypes in a sample, from microsatellite data. And are there any that will take into account missing data points? I have 11 loci genotyped for 40-60 individuals per sample (x17) so would like to have an automated way of doing this.

Appreciate any help. Desiree

– Desiree Allen Dept. Ecology, Evolution and Behaviour Indiana University 1001 East 3rd Street Bloomington IN 47405

Ph: (812) 856-0115

deeallen@indiana.edu

Multifactorial analysis

Dear Evoldir list members, I have 7 loci genotyped for 90-100 individuals per sample (3). For all specimens I also collected information of age and sex. I was wondering if there is a software implementing a multifactorial-analysis test of population differentiation, taking into account all these informations (microsatellite genotype, geography, age and sex). I will post on evoldir list a summary of all comments I will get. Appreciate any help. Chiara

Chiara Papetti PhD student (Evolutionary Biology) Biology Dept University Of Padova Via G. Colombo I-35100 Padova Italy e-mail cpapetti@bio.unipd.it chiara.papetti@unipd.it Tel 0039 049 8276222 Tel 0039 049 8276222

Network Diagrams

Dear EvolDir members,

I need to create a publication quality figure from a network calculated in Network software (Fluxus). The software allows me to export images only as bitmap (bmp) or pdf. Both are of poor quality. I would very much appreciate any suggestions for a software that could handle formatted network diagrams (fdi files) and the output would be a high quality image. What other alternatives are there?

Thank you very much for all suggestions.

Natalia Martinkova martinkova@brno.cas.cz

Network analysis answers

Dear All, thanks to all, who have relied to my question regarding network analysis with microsatellites. Here are all the responses to my inquiry:

currently I am sitting in front of my computer and asking myself if there is a program for some kind of network analysis for population genetic studies (microsatellites)? Or is there something similar to this? I would be grateful for any suggestions.

Best regards,

Conny Cornelya Kl?tsch ZFMK- Zoologisches Forschungsinstitut und Museum Alexander Koenig

Adenauerallee 160 53113 BonnGermany Tel.: 49-228-9122-242 Fax: 49- 228-9122-212 Mail: cornelya@freenet.de

Rodney Dyer has published a graph theoretical approach to this kind of data analysis. I think this is the reference: Dyer, R.J. & J.D. Nason. 2004. Population Graphs: The Graph-Theoretic Shape of Genetic Structure. Molecular Ecology. 13(7): 1713-1728. Cheers, Guy Hoelzer Department of Biology University of Nevada Reno Reno, NV 89557 Phone: 775-784-4860 Fax: 775-784-1302

You may want to look at my population graphs stuff. It is described in:Dyer, R.J. & J.D. Nason. 2004. Population Graphs: The Graph-Theoretic Shape of Genetic Structure. Molecular Ecology. 13(7): 1713-1728.Pdf & software are available on my laboratory server.– Rodney J. Dyer, PhDDepartment of BiologyCenter for the Study of Biological ComplexityVirginia Commonwealth UniversityRichmond, Virginia 23284-2012, USAhttp://dyerlab.bio.vcu.edu the only program I know of is Network(4.111 is the latest). You can get the free download at http://www.fluxus-engineering.com/-sharenet.htmbest, hollyHolly M. Mortensen, PhD Candidatehollym@umd.eduUniversity of MarylandDepartment of Biology,Bldg.144College Park, MD 20742tel. 301-405-8737 The program Arlequin does have the option for minimum network analyses for microsatellites

http://anthro.unige.ch/arlequin/software/ Cheers, Ella

Dra. Ella V?zquez Dom?nguez

Instituto de Ecolog?a, UNAM Ap. Postal 70-275 Laboratorio de Macroecolog?a Ciudad Universitaria Tel (52) 55- 5622 9002 M?xico DF 04510 M?XICO Fax (52) 55-5616 1976

evazquez@ecologia.unam.mx

http://www.ecologia.unam.mx Hi Cornelya, Both Arlequin and TCS (http://darwin.uvigo.es/software/-tcs.html) allow you to perform network analyses. See also this paper in TREE: Posada D, Crandall KA (2001) Intraspecific gene genealogies: trees grafting into networks. Trends in Ecology and Evolution 16, 37-45. Cheers, Maarten Vonhof – Maarten Vonhof Assistant Professor, Dept. of Biological Sciences Western Michigan University Kalamazoo, MI 49008-5410 Phone: (269) 387-5626, Fax: (269) 387-5609 E-mail: maarten.vonhof@wmich.edu

Hi, You might want to have a look at Arlequin (http://anthro.unige.ch/arlequin/). It allows to analyse quite a variety of different data types. Unfortunately I haven‘t used it myself so far and might not be of too much help... Best, –Basti Bastian Bentlage“<b_bentlage@gmx.net> ?
_____ Bastian Bentlage GZG - Geobiology Goldschmidtstr. 3 37077 Goettingen Germany Centre for Biodiversity and Ecology University of Goettingen _____ Conny, Right now I am working with PopGraph, and FCA (factorial correspondence analysis) plots also seem to be useful in some situations. However, I too am looking for other programs for this sort of analysis. If you wouldn't mind, I would love to see the responses. Emily Latch,Emily K"<latche@purdue.edu> ?

You might want to take a look at Rodney Dyer's "Population Graphs" method. It is based on a graph theoretical framework, so it is quite different from methods used in TCS or NETWORK. Dyer & Nason. 2004. Molecular Ecology 13, 1713-1727. If you hear of any other methods, please pass on the information. Best, Jeff Johnson Jeff Johnson"<jeffaj@umich.edu> "

Connie, you might try Rodney Dyer at Virginia Commonwealth University (rjdyer@vcu.edu). There is also something called MinSpan, probably available from Laurrent Excoffier (U Berne). There is also someone in Germany who is really good at the graph theory of connection networks, in genetic context, but I'm drawing a blank on his name at the moment. I'll try to dredge up that name for you. - Peter Smouse Peter Smouse"<Smouse@aesop.rutgers.edu> ?

– Cornelya Kl?tsch ZFMK- Zoologisches Forschungsinstitut und Museum Alexander Koenig Adenauerallee 160 53113 Bonn Germany Tel.: 49- 228-9122-242 Fax: 49- 228-9122-212 Mail: cornelya@freenet.de Ihr Traumpartner ist nur einen Klick entfernt. 1 Million Singles warten auf Sie in Deutschlands beliebtester Partnerboerse: http://singles.freenet.de/-index.html?pid=11512

— / —

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

Network population program

MessageDear All,

currently I am sitting in front of my computer and asking myself if there is a program for some kind of

network analysis for population genetic studies (microsatellites)?Or is there something similar to this? Iwould be grateful for any suggestions.

Best regards,

Conny–Cornelya KlütschZFMK- Zoologisches Forschungsinstitut und Museum Alexander KoenigAdenauerallee 160 53113 BonnGermanyTel.: 49-228-9122-242Fax: 49- 228-9122-212Mail: cornelya@freenet.de

–

cornelya@freenet.de

Old S2 BRL sequencers

I would like to buy a used lower buffer tank of an S2 BRL vertical acrylamide electrophoresis rig. Ann Eileen Miller Baker 859 257 6574

mouse <mouse@lamar.colostate.edu>

PCR sex test

Hi

I am interested in hearing from anyone using PCR-based molecular tests of sex on any taxa who has found errors in the process. An error could be a sample that is designated one sex in a PCR amplification and the other sex in a subsequent amplification with the same PCR primer set (i.e. a repeated test) or a different PCR test of molecular sex.

I have found a number of instances of both types of error in the literature on birds, fish and apes but suspect that many labs would have encountered errors in PCR-based sexing that are never published.

Cheers Bruce

Dr Bruce C. Robertson Lecturer in Conservation Genetics School of Biological Sciences University of Canterbury PB4800 Christchurch NEW ZEALAND

Email: bruce.robertson@canterbury.ac.nz Phone: +64-3-364 2987 ext 4664 Fax: +64-3-364 2590 Homepage: http://www.biol.canterbury.ac.nz/-people/robertson.shtml Molecular Ecology Laboratory: <http://www.biol.canterbury.ac.nz/MEL/-MEL_index.shtml>http://www.biol.canterbury.ac.nz/-MEL/MEL_index.shtml

bruce.robertson@canterbury.ac.nz

PCRmachines MJR

Some news and a question about PCR machines for the group....

Like many labs, we use MJR thermal cyclers for PCR and have been quite happy with them. Our Dyad machine has gone on the fritz and needs repair. When I called Bio-rad, which acquired MJR earlier this year, they told me that they cannot service any MJR machine because of a court order permanently enjoining them from selling or supporting MJR machines in the U.S. The order is due to successful legal action by ABI/Applera against MJR for patent infringement. Bio-rad[1]s materials state that they have tried to negotiate a settlement with ABI, but ABI has shown no interest in reaching an agreement. Bio-rad says they are continuing their efforts, but there is no timetable for when service might resume on MJR cyclers in the U.S. (see www.bio-rad.com/LifeScience/pdf/letter.pdf)

This puts us and probably a growing number of U.S. labs as time passes in a difficult position, with an expensive and effectively worthless machine in our hands. Bio-rad is honoring warrantees and service contracts on MJR instruments by providing loaners of their own [3]Icycler[2] PCR machines until the warrantee/contract runs out. They will also provide a [3]generous[2] trade-in on MJR machines requiring repair for those wanting to buy a new Icycler machine.

Does anyone have experience with the Icycler? I would appreciate hearing any testimonials about its performance and reliability.

Joe Thornton University of Oregon joet@uoregon.edu

PortugueusePubl other answers

Hello to everyone on this sunny thursday afternoon,

I apologise for posting this resume-e-mail perhaps

somewhat late, but I would like to sum up the answers I got to all my enquiries, in order to express my gratitude and appreciation to all engaged Evoldir-members.

1.) As far back as June 2004 (if I remember the date correctly), I posted an enquiry about inferences on social behaviour of human ancestors such as Australopithecus.

I received three or four mails or so. All of these mails alluded to the work by J. Michael Plavcan of the Department of Anatomy, New York College of Osteopathic Medicine.

There is, f.i., the following reference:

Plavcan, J.M. 2000. Inferring Social behavior from sexual dimorphism in the fossil record. Journal of Human evolution 39, 327-344.

2.) A few months ago I posted another enquiry about the variation, behaviour, and evolution of guppies (Poecilia reticulata), a small, Neotropical fish species, which is a livebearer (Poecilidae).

As feed-back to this enquiry, I received e-mails by Anne Magurran, Anna Lindholm, Kit Magellan, and Erika Crispo. These mails contained many hints, suggestions, and some papers which deal mainly with the population genetics of Poecilia reticulata, this so common fish species in some Tropical urban ecoystems.

3.) As to my enquiry which I posted only recently (was: scientific publications published in Portuguese), I received only very few feed-back so far.

Rogerio O. Souza from Santa Catarina state, Brazil, indicated the following Brazilian journals: Revista Brasileira de Biologia, and Revista Brasileira de Zoologia.

All of these journals and many more (at least the newer volumes) can be seen online at the excellent Brazilian open-access-source www.scielo.br . And many articles therein published are indeed in Portuguese. But I did not get so far publications from other Lusophone countries, such as Portugal, Moambique etc..

I thank to all of you. The topic one has died for me, as the student switched to another monography topic. The topic two is still somewhat of interest. But I am now very generally minded, and I am having an eye on study topics in general, in all small livebearer species (not necessarily Poecilia reticulata). The topic three also continues to be of interest.

best wishes, com meus melhores cumprimentos,

good work! Bom trabalho!

Thomas Schlemmermeyer - Universidade Estadual de Mato Grosso do Sul - Mundo Novo, MS - Brazil.

Thomas Schlemmermeyer <t_schlemmermeyer@hotmail.com>

Portuguese papers

Hello, I have seen that there are many Lusophone Evoldir participants.

For my "Bioestatistica"-lessons to undergraduates (who do not read English), I would need about 15 to 20 different archives of published scientific papers in Portuguese (about evolutionary biology, senso latu, including ecology, biodiversity, etc.). These papers should contain a methodological section which explains well all statistical methods used.

ANOVA, linear regression and non-parametric methods.

Feel free to send such archives, if you have them! English texts do not help at all.

Thomas Schlemmermeyer Universidade Estadual de Mato Grosso do Sul (UEMS) Unidade Mundo Novo BR 163, km 20,2; 79980 - 000 Mundo Novo, MS, Brasil

Thomas Schlemmermeyer <t_schlemmermeyer@hotmail.com>

QTL software

Dear all,

I need a software for QTL mapping, that doesn't want population for analysing. If you know introduce to me.

Thanks Leila

leila pazouki <pazouki712@yahoo.com>

R2 test population growth

Dear members of evoldir,

is any of you aware of a genetic software implementing the R2 test (Ramos-Orsins & Rozas in Mol. Biol. Evol. 19(12): 20092-2100, 2002) for detecting population growth? Apparently this test is more powerful than the usual Tajima's D and Fu when sample sizes are small.

Thanks.

Sergio

Sergio Stefanni, PhD Dept. of Oceanography and Fisheries (DOP) IMAR-University of the Azores PT-9901-862 Horta - Azores - Portugal work: +351.292 200 430 Fax: +351.292 200 411 mobile: +351.964 538 185 email: sstefanni@notes.horta.uac.pt / sstefanni@yahoo.co.uk

sstefanni@yahoo.co.uk

Sequencing Buffer BigDye

Hello:

Does anyone have a recipe for sequencing buffer to use with Big Dye (ABI)? We have an ABI 3100 sequencer and are running 1/16th reactions. The company's 5X buffer to use with diluted reactions is really expensive. I tried a recipe from another lab and it caused reactions to drop off to low signal really fast or fail altogether.

Thanks a lot! Leslie Turner

Leslie Turner Hoekstra Lab Ecology, Behavior, and Evolution Division of Biological Sciences University of California, San Diego 9500 Gilman Drive, MC 0116 La Jolla, CA 92093-0116 (858) 822-0170 lturner@biomail.ucsd.edu

lturner@biomail.ucsd.edu

Software Clann 3 0 1

Hi,

Just a quick note to let you know that Clann 3.0.1 is now available for download at http://bioinf.nuim.ie/-software/clann This is a minor update which addresses the following issues:

- A modification of the seed choice for the random number generator was made to make sure that if several Clanns are started up at exactly the same time, they will all have different seeds.

- Fixed a bug in the robinson foulds distances. This over estimated the distances if the input trees given were rooted. The bug has been fixed.

- Clann was reported to crash with some large datasets, this has been recti fied.

- A problem reading nexus files has been fixed.

- Some problems with aspects of the "include" and exclude" commands have been fixed.

- Some minor cosmetic changes were made to the interface.

Regards,

Chris.

– Dr. Chris Creevey Bork Group, EMBL Heidelberg, Meyerhofstrasse 1, 69117 Heidelberg, Germany

E: chris.creevey@gmail.com P: + 49 6221 387 8534

chris.creevey@gmail.com

Software Clann3 0 2

Dear all,

I wish to announce the release of Clann version 3.0.2

For those that may not know Clann:

Clann (the Irish word for "family"), is a free software program designed and written by Chris Creevey at the Bioinformatics and Pharmacogenomics Laboratory at NUI Maynooth. The purpose of the program is to implement methods of determining the optimal phylogenetic supertree or consensus tree, given a set of input source trees.

This latest update addresses some dataset-specific issues reported and implements some changes to the SPR method for the DFIT criterion, this has had the effect of increasing the speed of the SPR searches.

This version os available at:

http://bioinf.nuim.ie/software/clann Regards,

Chris.

– Dr. Chris Creevey Bork Group, EMBL Heidelberg, Meyerhofstrasse 1, 69117 Heidelberg, Germany

E: chris.creevey@gmail.com P: + 49 6221 387 8534

chris.creevey@gmail.com

Software TreeMaker

Phylogenies combined with distribution data provide a logical framework for assessing the conservation worth and biodiversity. TreeMaker is a multiplatform program (Mac, PC, Linux) for the building and editing of phylogenies based on systematic nomenclature, either de novo or imported from existing data. Survey data on the incidence or abundance of taxa at discrete sites can be entered. The resulting data can be exported in a variety of formats, including NEXUS, for use in other programs. Together with the previously-existing program MeSA, various measures assessing biodiversity under phylogenetic criteria can be derived for combinations of sites.

The programs are available at:

* <http://www.agapow.net/software/> and their use is described in a recent paper in the new open-access journal 'Evolutionary BioInformatics Online':

* Crozier RH, Dunnett LJ, Agapow P-M. 2005. Phylogenetic biodiversity assessment based on systematic nomenclature. Evol. Bioinform. Online 1:11-36. –

Ross H Crozier FAA

Professor of Evolutionary Genetics School of Tropical Biology James Cook University Townsville, Queensland 4811 AUSTRALIA

email: Ross.Crozier@jcu.edu.au phone: +61 7 4781 5734 (office) +61 7 4781 5723 (lab.) +61 7 4781 5450 (lab.) fax: +61 7 4725 1570

http://medusa.jcu.edu.au/crozier/croziergrouphome/
ross.crozier@jcu.edu.au

Sofware to interbreed populations

I'm a PhD student in Melbourne, Australia studying hybridisation among three species of fur seal. I'm looking for a population genetics software program that will enable me to take two or more populations with particular genotypes (preferably allocated by me), allow them to interbreed (preferably over several generations), and then give me an output file with the genotypes of the progeny. If anybody knows of such a software program, please contact me via email.

Many thanks, Melanie Lancaster m.lancaster@latrobe.edu.au

Melanie Lancaster <M.Lancaster@latrobe.edu.au>

Spanish Society Evolutionary Biology

Dear Evoldir Members,

The Spanish Society of Evolutionary Biology has been recently founded and has celebrated its inaugural meeting in Granada, September 22-23.

The aims of this new society shall be 1. To promote and divulge the Evolutionary Biology in Spain, including any scientific, technological, applied and informative aspect, and to encourage the relationships of members through the celebration of scientific meetings and electronic forums, the publication of an electronic journal, manuals, etc. 2. To dedicate a particular effort to the cultural promotion of Evolutionary Biology and its teaching, serving as a centre of information and diffusion among interested people and institutions.

A constitution has been approved and the first council has been elected. Manuel Soler (University of Granada, President), Andrés Moya (Instituto de Biodiversidad ?Cavanilles, Valencia, Vicepresident), Julio Sanjuán (University of Valencia, Secretary), José Serrano (University of Murcia, Treasurer), together with six ordinary councilors, Jordi Agustí, Josabel Belliure, Laueano Castro, Santiago Merino, Álvaro Moreno, and Pablo Vargas.

<>We are now more than 240 members that pay a very cheap annual fee of 10 euro. New members are welcome. The ten euro fee should be sent to the Bank Santander Central Hispano: IBAN 97/ 0049 6714 26 2190117501. Swift code: BSCH ES MMXXX <> The next scientific meeting is to be held in Barcelona on 2007. This will be followed by a third meeting in Valencia on 2009, to celebrate the two-hundred anniversary of Darwin?s birth. <> The Web page of the society is http://www.sesbe.org/. An English version will be soon available. Further information can be requested from msoler@ugr.es <mailto:msoler@ugr.es>.

Regards.

<>Prof. José Serrano Faculty of Veterinary, University of Murcia (Spain).

Jose Serrano <jserrano@um.es>

Spider DNA extraction

Dear Evoldir members

We are experiencing a repeated problem with DNA extraction from fairly large 12-15 mm) spiders collected in the field and stored in 95% ethanol for up to one month before freezing. In some cases neither phenol/chloroform extraction or Qiagen extraction kits yields any DNA. Ethanol is exchanged on the second day following conservation. I would be grateful for advice on extraction as well as on optimal storage of field specimens.

Thanks a lot,

Trine Bilde

trine.bilde@biology.au.dk

Associate Professor Ecology and Genetics Aarhus University Ny Munkegade Building 540 8000 Aarhus C Denmark Ph. +45 89423338 or +45 60202702 Fax +45 89422722

trine.bilde@biology.au.dk

TCS problem solved

Dear Evoldir list members, I would like to wholeheartedly thank you for the beautiful community that you are forming and keeping alive. I received dozens of helpful comments on my difficulties using TCS. I am very grateful to all. In brief, it would appear that it is MUCH better to use an input file in the nexus format, rather than phylip. Since there are so many softwares available these days which convert phylip files into nexus ones (PAUP, proseq, DNAsp, MEGA, etc...) I guess it's simply easier to convert and use nexus. Thank you also to David Posada for his availability.

good luck to all,

Stefano.

Dr Stefano Mariani MARine Biodiversity, Ecology & Evolution UCD School of Biological & Environmental Science Science and Education Research Centre (West) University College Dublin Belfield Dublin 4 Republic of Ireland tel. +353.1.716.2347 fax. +353.1.716.1152 http://www.ucd.ie/zoology/-mariani/ stefano.mariani@ucd.ie

TCS problems

Dear all, I am trying to use TCS (Clement et al) to construct a parsimony haplotype network from a series of sequences. My input file is a normal, perfect "phylip" type, and I did get rid of any "space", "tab" or "returns". And TCS does open it. This notwithstanding, when I try to run the computation, a window pops out and tells me: "You have too many returns in the first individual". It stops and I have to shut down. Has anyone encountered this problem before? Does anybody have any suggestion as to how to get around it? (this even including sadly using another software!).

Thanks a million,

Stefano.

Dr Stefano Mariani MARine Biodiversity, Ecology & Evolution UCD School of Biological & Environmental Science Science and Education Research Centre (West) University College Dublin Belfield Dublin 4 Republic of Ireland

stefano.mariani@ucd.ie

TE-AFLP software

Colleagues:

I am looking for a TE-AFLP analysis program which allows me to search for phenotypes. I have 299 samples divided over 34 populations and 5 regions. The program RAPDist version 1.4 limits 100 samples and version 2.0 limits 250 samples but almost all functions are not currently implented in version 2.0. Does anyone know a program which counts how many different phenotypes there are, and how many individuals of each phenotype are in the samples?

Sander van Rijn Student Evolutionary Genetics

s.van.rijn@student.rug.nl

sandervanrijn@gmail.com

Transilluminators answers

Hi All

Below is my original email, followed by the responces, thankyou all again for your advice.

Transilluminators We are looking at purchasing a transilluminator - for quite basic use reading bands and taking photos - no cutting/cloning etc. We will be using it in a dark room. Currently we use a UV transilluminator and Ethidium Bromide staining and it has been suggested that we might consider switching to one of the Dark Reader transilluminators (e.g. Clare Chemical Research DR88M Transilluminator to avoid the UV light etc. I would be grateful to hear from people who have experience with this type of transilluminator. Is the resulting visualisation comparable with that of UV transilluminators - I understand it may not be as useful with Ethidium Bromide...

Digital Cameras We are also looking at the possibility of obtaining a good commercial digital camera (aimed at public rather than lab work) to use with this set up (as opposed to a gel documentation system) and would be grateful for any advice from people operation this type of system.

****

Replies
****

Hi,

we are using a normal UV-table. On top we place a box with a hole in it, through which we take a picture with the digital camera. It works and the quality of the pictures is good. If you want to make your own documentation system, you need to have a camera which allows manual adjustments. We use an old Nikon Coolpix 990, which does the job. Moreover, you can tilt the screen which allows you to observe more easily what is going one while you take the picture from above. We got some ideas from here: http://www.virginia.edu/-biology/Fac/hirsh_gel/gel/

cheers, dominik

Hi Tiawanna,

I wrote a webpage about our system: http://-evolution.unibas.ch/ebert/lab/geldoc.htm

If you have more questions or comments, don't hesitate to mail me!

cheers,

dominik

Dominik Refardt Zoologisches Institut der Universität Basel Evolutionsbiologie Vesalgasse 1 CH-4051 Basel Switzerland

mailto://dominik.refardt@unifr.ch
callto://dominik_refardt http://evolution.unibas.ch/-people/dominik/

****

Tiawanna,

My lab has been using precisely the sort of set-up that you describe for several years and we're quite happy with it. We have a Clare Dark Reader transilluminator and a consumer-grade digital camera (Canon G1) on an old Polaroid camera stand, connected to a salvaged video monitor. Ordinarily, we use the orange filter/viewscreen that came with the Dark Reader, with no additional filter on the camera (but see below). The camera is set up in a small darkroom (really little more than a closet); we process the images on a computer that sits outside the darkroom. Because we salvaged the monitor and copy stand, total cost was about 20% of a comparable commercial gel-documentation system.

I am very pleased with the results. Especially with the addition of the video monitor (for bigger views/better focusing than is possible on the camera's viewscreen), we get great visualization of our gels, and with the flexibility of this camera, we have considerable control over the photographic conditions. By adding some simple lighting, we also have a good SDS-PAGE documentation system, and for those situations where we need it, we can substitute a UV transilluminator for the blue-light box (this does require an orange filter on the camera, purchased from the local camera store). Finally, by using a consumer digital camera, we have the added flexibility of detaching the camera for other lab documentation needs.

I should add that we have switched almost entirely away from Ethidium bromide, using Molecular Probes' SYBR Green for routine gel staining in order to decrease the health risks associated with Ethidium (especially because all the students in my lab are undergraduates with minimal prior training). I haven't done a cost analysis myself, though I have seen reports

that used carefully, SYBR Green can be cheaper than Ethidium. We use a gel-loading buffer that contains the SYBR Green, so gels can be examined mid-run and there is no need for post-run staining or destaining. Staining appears uniform and capable of detecting a few nanograms of DNA. With this usage pattern, our current stock of SYBR Green is apt to last for years and years.

If you'd like to know more about our setup, please don't hesitate to let me know.

With best wishes,

Peter Kuhlman

Peter Kuhlman Associate Professor Department of Chemistry and Biochemistry Denison University Granville, OH 43023

phone: 740-587-6698 fax: 740-587-6673 e-mail: kuhlman@denison.edu

— / —

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

iSpecies website

For fun I've created a site that searches three data sources - NCBI, Yahoo images, and Google Scholar for information on a taxonomic name. If you type in a name you get information on whether that organism has been sequenced (and if so, how many sequences are available), the first five images Yahoo finds on the web, and up to 10 documents from Google Scholar (with DOIs and links to PubMed, where available).

If you'd like to try it go to http://ispecies.org (you'll get forwarded to a machine here in Glasgow).

I know there are all sorts of problems with searching on names, but I've found it to be fun to see just how much information is out there.

Example links to try are:

http://darwin.zoology.gla.ac.uk/~rpage/ispecies/?q=Pediculus+humanus http://darwin.zoology.gla.ac.uk/~rpage/ispecies/?q=Rhea+americana http://darwin.zoology.gla.ac.uk/~rpage/ispecies/?q=Anthonomus+grandis http://darwin.zoology.gla.ac.uk/~rpage/ispecies/?q=Florinemestrius+pulcherrimus http://darwin.zoology.gla.ac.uk/~rpage/ispecies/?q=Agathis+australis http://darwin.zoology.gla.ac.uk/~rpage/ispecies/?q=Banksia+coccinea

Please be aware that the image search can sometime produce images you might not want children or the faint hearted to see – despite Yahoo claiming it filters adult content. You have been warned...

Comments welcome.

Regards

Rod

Professor Roderic D. M. Page Editor, Systematic Biology DEEB, IBLS Graham Kerr Building University of Glasgow Glasgow G12 8QP United Kingdom

Phone: +44 141 330 4778 Fax: +44 141 330 2792 email: r.page@bio.gla.ac.uk web: http://taxonomy.zoology.gla.ac.uk/rod/rod.html reprints: http://taxonomy.zoology.gla.ac.uk/rod/pubs.html

Join Systematic Biology through the Society of Systematic Biologists Website: http://systematicbiology.org Search for taxon names at http://darwin.zoology.gla.ac.uk/~rpage/portal/

r.page@bio.gla.ac.uk

PostDocs

AmherstCollege Genomics

*Postdoctoral Research Position: Genomics, **Amherst** **College*

The Biology Department at Amherst College seeks a postdoctoral fellow interested in collaborative research and teaching within the college environment. Research may be conducted within the laboratory of any member of the Department (http://www.amherst.edu/~biology/faculty.html) but must address some aspect of genomic biology. Participation in the teaching of undergraduates will involve the co-teaching of a course, or a specific module within a course, with faculty in the Department. The two-year position is funded by a grant from the Howard Hughes Medical Institute to Amherst College to support teaching and research in the area of genomic biology. Applications must include: 1) Curriculum vitae; 2) Statement of research interest; 3) Statement of teaching interest; 4) The names of 1 (or at most 2) member of the Department with whom the applicant might work; 5) 3 letters of recommendation, mailed separately. *Review of applications will begin after Jan 1, 2006, and continue until the position is filled. *_Only complete applications will be considered. _ All materials should be sent to: Genomics Postdoctoral Search, Department of Biology, Amherst College, Amherst, MA 01002-5000 USA

More details of the position and the application process are available at: http://www.amherst.edu/~biology/-menu.html Amherst College is a private undergraduate liberal arts college for men and women, with 1,600 students and 190 faculty members. Located in the Connecticut River Valley of western Massachusetts, Amherst participates with Hampshire, Mount Holyoke, and Smith Colleges and the University of Massachusetts in the Five-College Consortium. Amherst College is an Equal Opportunity/Affirmative Action employer and encourages women, persons of color and persons with disabilities to apply. The administration, faculty and staff are committed to attracting candidates from groups currently underrepresented on our campus.

* *

– Ethan J. Temeles Associate Professor and Chair Department of Biology McGuire Life Sciences Building Amherst College Rts 9 & 116 Amherst, MA USA 01002-5000 ph. (413) 542-8322 fax (413) 542-7955 email: ejtemeles@amherst.edu www: http://www.amherst.edu/~ejtemele Ethan Temeles <ejtemeles@amherst.edu>

CNRS Gif-sur-Yvette TranscriptomeAnalysis

ANR Project DUPLIGEN 30 month contract (can be extended to 3 years) starting as early as possible in 2006 Centre de Genetique Moleculaire, CNRS, 91198 Gif-sur-Yvette France http://www.cgm.cnrs-gif.fr/ We have a post-doctoral position available for analysis of the Paramecium transcriptome. The monthly salary is approximately 1700 Euros.

Analysis of the newly sequenced Paramecium tetraurelia genome revealed a recent Whole Genome Duplication (WGD). Among the 40,000 annotated genes, more than 12,000 pairs of paralogs from the WGD are still present in the genome, accounting for 60% of present

day Paramecium genes. Our research project is to take advantage of this exceptional situation to study the fate of genes following a WGD: gene conversion, neo- or subfunctionalisation, formation of pseudogenes, gene loss, etc. An important part of the project is an analysis of the Paramecium transcriptome, with particular attention to the expression of the pairs of paralogous genes.

We are looking for a post-doctoral candidate interested in the problem of genome evolution and with good experience in bioinformatics, in particular as applied to the analysis of DNA microarrays. The post-doc will help design oligonucleotide microarrays for optimal discrimination of the pairs of paralogous genes and conduct the statistical analysis of hybridizations with cDNAs from various cellular states, with the objective of describing the evolution of different categories of duplicated genes.

The post-doc will be financed through a contract from the Agence National de la Recherche awarded to a network inlcuding Jean Cohen and Linda Sperling at the CNRS in Gif-sur-Yvette, Eric Meyer and Mireille Betermier at the Ecole Normale Superieure, Paris and Vincent Daubin and Laurent Duret at the Pole Bioinformatique Lyonnais, Universite Lyon I.

To apply for the position, please send a CV and the names of two people familiar with your work that we can contact for letters of support.

Please send enquiries and applications to the project co-ordinator:

Jean Cohen Centre de Genetique Moleculaire CNRS Avenue de la Terrasse 91198 Gif-sur-Yvette cedex France Telephone +33 1 69 82 43 73 cohen@cgm.cnrs-gif.fr

Linda.Sperling@cgm.cnrs-gif.fr

Canadian Barcode of Life

CANADIAN BARCODE OF LIFE NETWORK

POSTDOCTORAL FELLOWS AND GRADUATE STUDENTS

The Canadian Barcode of Life Network represents a coalition of more than 50 researchers based in university and governmental laboratories across Canada with the ambitious mission of creating a DNA-based system for species identification. This program will be carried out in close collaboration with international organizations that share this exciting objective.

The Canadian Network will initially focus on the assembly of large-scale DNA barcode libraries for varied groups of animals (e.g., fishes, birds, mammals, insects, crustaceans, and parasites) and for selected groups of plants, fungi, and protists. In addition, it will advance analytical and databasing protocols for DNA barcoding.

In support of these goals, the Canadian Barcode of Life Network has funding for 24 postdoctoral fellows and 19 graduate students covering diverse areas of research within the DNA barcoding program. For further information on these positions, including application deadlines, descriptions of research, locations of tenure, and lead scientists, visit www.bolnet.ca. The Barcode of Life site at www.bolnet.ca.provides further perspectives on this area of research.

Robert Dooh Information Officer Canadian Barcode of Life Network Biodiversity Institute of Ontario University of Guelph Guelph, Ontario N1G 2W1 Phone: (519) 821-9319 Email: rdooh@uoguelph.ca

Robert T Dooh <rdooh@uoguelph.ca>

CornellU CompPopGenetics

Theoretical / Computational Population Genetics Postdoctoral position Cornell University

An NSF funded postdoctoral research position is available in Carlos D. Bustamante?s lab at Cornell. The lab focuses on statistical inference in population genetics and molecular evolution with emphasis on developing novel methods for detecting evidence of natural selection from comparative sequence data. Successful applicants will have expertise in one of the following areas: theoretical population genetics, comparative genomics and bioinformatics, computational statistics, and/or biophysics. For more details on current research visit http://www.bscb.cornell.edu/-Homepages/Carlos_Bustamante/.

Applications will be reviewed as they are received. If interested in applying, please send a current cv, statement of research interest, and the contact information of three references to cdb28@cornell.edu. Your cv and statement must be in PDF format and the email subject should read ?Post-Doctoral Position Application ? <LAST NAME>,<FIRST NAME>?. Please include your contact details and those of your references in the email.

Carlos D. Bustamante Assistant Professor, Biological Statistics and Computational Biology 101A Biotechnology Building Ithaca, NY 14853 (607) 255-1640

Carlos Bustamante <cdb28@cornell.edu>

CornellU ComparativeGenomics

Post-doctoral position in computational and comparative genomics at Cornell University

Seeking qualified applicants for a post-doctoral position with Adam Siepel at Cornell University. Possible areas of focus include: detecting protein-coding genes or other functional elements, based on comparative sequence data; detecting sequences under lineage-specific selection; reconstructing ancestral genomes; incorporating population genetic data into methods for functional element identification; and identifying and characterizing post-transcriptional regulatory elements. Candidates interested in combining aspects of computational and experimental biology are invited to apply. (Co-sponsorship with an experimentalist is a possibility.)

Qualifications:

Minimally, a Ph.D. and strong research experience in computational biology, computer science, statistics, genetics, molecular biology, applied mathematics, or a related field. Experience in comparative genomics, molecular evolution, population genetics, and/or machine learning, and proficiency in programming, are highly desirable.

Term:

Two years, with an optional extension. Proposed start date is as soon as possible in 2006. Applications will be accepted until the position is filled.

About the Group:

Adam Siepel is building a new research group at Cornell, where he begins as an assistant professor in biological statistics and computational biology January 1, 2006. Siepel's group will be closely associated with those of BSCB faculty Carlos Bustamante and Jason Mezey, and will have close ties with the labs of Molecular Biology and Genetics faculty Andy Clark and Chip Aquadro. It will be part of a larger computational biology and genomics community at Cornell, including people from Computer Science, Mathematics, Vet Sciences, and other departments. See http://www.cse.ucsc.edu/~acs for more details.

About Cornell and Ithaca:

Cornell is a top-ranked research university with particular strengths in the life sciences. It is located in Ithaca, NY, a vibrant, diverse university town, said to have more restaurants per capita than any other city in the US. Ithaca is the cultural center of the scenic Finger Lakes region of central New York, known for its spectacular gorges and waterfalls, lake-side wineries, and rolling farmland. Ithaca has been called the "best emerging city" in the US (Cities Ranked and Rated, 2004) and "America's most enlightened town" (Utne Reader, 1997). It is about a 4-hour drive from New York City.

To Apply: Submit a CV, a short (roughly two-page) description of research interests and experience, and contact information for three references by e-mail to acs@soe.ucsc.edu (preferred) or by post to the address below. Informal inquiries are welcome.

Adam Siepel Department of Biological Statistics and Computational Biology 101A Biotechnology Building Cornell University Ithaca, NY 14853

Cornell University is an affirmative action/equal opportunity employer.

Adam Siepel <acs@soe.ucsc.edu>

DeakinU 2 BiodiversityPhylogenetics

Two Postdoctoral Positions in Molecular Ecology and Biodiversity/Phylogenetics:

(1) Research Fellow (Position - 6200 / 351) 2 years

We are looking for a highly motivated and well-qualified person to undertake research in the recently established Bioscience North Australia (BNA), a new molecular facility housed at the university. BNA will undertake collaborative research in broad areas of importance to the region including molecular ecology, wildlife ecology and conservation, microbial ecology and biodiversity. The successful applicant will have a role in managing the research of BNA through pilot studies, collaborative large projects, and mentoring new researchers and students.

The successful applicant will be expected to take a leading role in managing the BNA laboratory, supervise use of an ABI 3130XL genetic analyzer for DNA sequenc-

ing and fragment mapping, assist in the development of collaborative research in areas prioritized by the BNA Leader and the BNA Advisory Group.

Go to http://www.cdu.edu.au/staffservices/-vacancies.html#darwin or contact Associate Professor Karen Gibb (karen.gibb@cdu.edu.au) for further information

(2) Research Fellow (Position - 6199 / 352) 3 years

We are looking for a highly motivated and well qualified person to undertake research in molecular phylogenetics and phylogeography. This person will work within the recently established Bioscience North Australia, a new molecular facility housed at the university. The successful applicant will be expected to take a leading role in developing a strong biodiversity-related program of research utilising molecular genetic information, to undertake collaborative research and support Professor Austin[1]s research funded by the Australian Research Council, AusAID and Land & Water Australia.

Go to http://www.cdu.edu.au/staffservices/-vacancies.html#darwin or contact Professor Chris Austin (chris.austin@cdu.edu.au) for further information.

Mark Schultz <mbsc@deakin.edu.au>

HarvardU EvolEnvir

Attention recent doctorate recipients in the evolutionary biology field:

The Harvard University Center for the Environment has just created the Environmental Fellows Program to enable you to use and expand Harvard's extraordinary resources to tackle complex environmental problems. The Environmental Fellows will work for two years with Harvard faculty members in ANY school or department to create new knowledge while also strengthening connections across the university's academic disciplines.

The fellowship will provide an annual salary of $50,000 plus health insurance, other benefits, and a $5,000 allowance for travel and professional expenses. Applications and all letters of reference must be received by the Center for the Environment by January 15, 2006.

Harvard University is an Affirmative Action/Equal Opportunity Employer.

To find out more - visit http://-www.environment.harvard.edu/navigation2/-funding.htm Please respond to the persons listed in the above URL and not to

David Havelick <david.havelick@gmail.com>

INRA Nice HostParasitoid

A Postdoctoral/Research Associate Position in "Evolutionary Biology and Physiology of Host-Parasitoid interactions", starting beginning 2006, is available at the INRA-University Nice Sophia-Antipolis, France.

The candidate will join a young research team working on "Evolutionary Genetics of Host-Parasite Interactions" in the ROSE (Organism Responses to Environmental Stress) Lab, a INRA-University laboratory, 20km west of Nice in the south part of France. The position is funded by the National Research Agency for two years and the salary is about 1900 euros (~2200 US $) per month, plus health insurance.

The project is aimed to characterize virulence factors of Hymenopteran parasitoids and analyse their biological effects in suppressing the immune defences of their insect hosts. A comparative approach is developped in order to understand evolution of virulence in hymenopteran parasitoids and decipher the molecular bases of host specificity.

The biological model involves Drosophila hosts and Figitid parasitoids (Leptopilina genus) in which intra specific variability for virulence and resistance has been described. The project is designed to characterize new virulence factors in two different types of L. boulardi females differing by their host specificity level and analyze their physiological effects and their molecular targets in Drosophila hosts. This model offers a unique opportunity to address the origin and nature of intraspecific differences in virulence mechanisms that allow adaptation to different host species.

We are seeking a motivated postdoctoral fellow with an interest in physiological and molecular aspects as well as evolutionary aspects of parasitic or symbiotic interactions. A good experience in molecular biology is needed. Practical knowledge in the Drosophila field will be appreciated as well as training in evolutionary concepts. However, candidates with less optimal profiles will be considered provided their motivation, work power and skills allow them to adapt rapidly to the project.

Interested candidates should send a curriculum vitæ, a

brief summary of research experience and interests, and at least two references to

Marylène Poirié Professor in Evolutionary Genetics Equipe "Génétique Evolutive des Interactions Parasitaires" UMR 1112 UNSA INRA "Réponse des Organismes aux Stress Environnementaux" 400 route des Chappes - BP 167 06903 Sophia-Antipolis FRANCE TEL 33 (0)4 92 38 64 09 - FAX 33 (0)4 92 38 66 55 E-mail : poirie@antibes.inra.fr

poirie@antibes.inra.fr

IndianaU EvolGenomics

POSTDOCTORAL POSITIONS IN EVOLUTIONARY GENETICS / GENOMICS

Postdoctoral positions are available in the laboratory of Michael Lynch, Department of Biology, Indiana University, Bloomington, Indiana:

Molecular evolutionary consequences of recombination and asexuality in Daphnia. This project takes advantage of the burgeoning set of genomic tools available for Daphnia pulex (including a complete-genome sequence, high density genetic map, microarrays, etc.), as well as the widespread distribution of asexual and sexual lineages in the study species. Numerous subprojects related to this system are available, as part of a larger NSF FIBR grant on the role of recombination in evolution. Among other things, this work is intended to establish Daphnia as a major model organism for ecological / evolutionary genomics. Candidates must have strong molecular skills, and background and/or interest in population genetics.

Comparative genome evolution in Paramecium. We are initiating studies on the genome architecture of various members of the ciliate genus Paramecium. Specific interests include the evolution of introns and internal eliminated sequences, and levels of standing nucleotide variation within and among species.

Evolution of spliceosomal introns and eukaryotic gene processing mechanisms. The goals here are to shed light on a number of unanswered questions regarding eukaryotic genes, including those concerned with the origin and proliferation of introns, the evolution of untranslated regions (UTRs) of genes, and nonsense-mediated decay and other aspects of mRNA processing. Candidates must have strong skills in the area of bioinformatics / computational biology and a good working knowledge of molecular genetics.

Characterization of the spontaneous mutation properties in eukaryotes. Taking advantage of several sets of long-term mutation accumulation lines of several species (including the nematode C. elegans, the microcrustacean Daphnia pulex, the ciliate Paramecium tetraurelia, the bdelloid rotifer Philodina roseola, and the yeast S. cerevisiae), we are attempting to quantify the entire mutational spectrum at the molecular level using high-throughput techniques, with a long-term goal of establishing generalities across eukaryotes. Candidates must have strong molecular skills.

All openings are immediately available and will remain open until suitable candidates are located. For immediate consideration, please send email applications (including a cover letter outlining your interests, complete CV, and contact information for three individuals willing to supply evaluations) by 1 January 2006 to: Margi Lockhart, malockha@bio.indiana.edu.

Michael Lynch milynch at indiana.edu

Distinguished Professor Dept. of Biology Phone: 812-855-7384 Indiana University FAX: 812-855-6705 Bloomington, IN 47405

Lab research:

www.bio.indiana.edu/facultyresearch/faculty/-Lynch.html IU Biology:

www.bio.indiana.edu <http://www.bio.indiana.edu/> NSF Training Grant in Evolution, Development, and Genomics:

evodevo.uoregon.edu Daphnia Genomics Consortium:

daphnia.cgb.indiana.edu <http://-daphnia.cgb.indiana.edu/>

"Lynch, Michael" <milynch@indiana.edu>

LundU GenomicEcology

Postdoctoral Research Fellow in Genomic Ecology (Lund, SWEDEN)

Lund University announces a position for Postdoctoral Research Fellow (reference no.4794) that will be affiliated with a newly started Centre for Genomic Ecology (www.biol.lu.se/ekologi/CGE/). A key ambition within the research programme of the centre is to improve our understanding of the molecular and genetic mechanisms behind key evolutionary processes such as

adaptation to environmental change, evolutionary differentiation and speciation. Such mechanisms could be manifested at different levels of biological organization from molecules and cells to organisms and populations.

The applicant's should have a strong empirical and/or theoretical research background in areas related to the research programme of the Centre and could include, but are not limited to fields like experimental evolution, developmental biology, theoretical evolutionary biology, molecular ecology, evolutionary ecology, evolutionary genomics/genetics and population biology. Guidelines for applications are found at <http:/-/www.naturvetenskap.lu.se/utlysningar>http://-www.naturvetenskap.lu.se/utlysningar Applications should be received no later than November 24, 2005.

Erik Svensson Associate Professor Section for Animal Ecology Ecology Building SE-223 62 Lund SWEDEN

Phone: +46 46 222 38 19 Mobile Phone: +46 0705 97 04 03 Fax: +46 46 222 47 16

http://www.biol.lu.se/zooekologi/epb/people-en/es-en/es-en.htm "Nothing in biology makes sense, except in the light of evolution" (Theodosius Dobzhansky)

Erik Svensson <erik.svensson@zooekol.lu.se>

NeustadtGermany AnimalGenetics

"Quantitative- and molecular genetic characterization and evaluation of animal genetic resources"

Two year post doc position at the Institute of Animal Breeding, Department of Animal Breeding and Genetic Resources

Genetic diversity in farm animal species is the basic requirement in animal breeding to meet future breeding goals, but has been lost in the past at an increasing rate. Improvement of our insight into mechanisms underlying genetic diversity will assist in the reconstruction of domestication events, determination of genetic relationships between populations, assessment of genetic variation within populations, development of a strategy to manage and conserve genetic diversity, and may indicate possible consequences of intensive selection in a decreasing number of populations and lines used in farm animal species. The research is aimed at the development and implementation of sophisticated quantative genetic methods using molecular information in this field. In our on-going collaborative research activities we have assessed a wide ranged gene pool in the chicken by typing more than 70 breeds at microsatellite locii from all over the world. In addition, molecular polymorphism in mitochondrial DNA as well as in candiate genes are currently under study. This collection in chickens provides an excellent model for the validation of molecular tools as an essential source of information to assess genetic diversity in farm animal species. The successful applicant is expected to join this international collaboration and will be involved in the analysis of the genetic structure of a given gene pool, assignment of individuals into classes or clusters, detection of selection effects by comparing highly selected populations and unselected ones, and possible introgression of genome fractions from various sources into modern breeding populations. To meet the requirements of potential users, algorithms and methods established during the project lifetime will be implemented into databases which are under development at the institute. The project will run over a period of 24 months.

Deadline for submission of application is Dec. 6, 2005. The position is available as of January 1st 2006, but later stating dates are negotiable.

further information: steffen.weigend@fal.de

– Eildert Groeneveld

Institute for Animal Breeding Mariensee 31535 Neustadt Germany Tel : (+49)(0)5034 871155 Fax : (+49)(0)5034 871239 e-mail: eildert.groeneveld@fal.de http://vce.tzv.fal.de/index.pl http://www.tzv.fal.de/-˜eg/ http://www.tzv.fal.de/˜eg/

SantaFeInst HIV Evolution

Postdoctoral Research Opportunity HIV Evolution and Vaccine Design

The Santa Fe Institute (SFI) has an opening for a postdoctoral research position beginning January 2006 in the area of HIV Evolution and Vaccine Design. Although the position is focused on HIV Evolution and Vaccine Design, the research at SFI is very broad and interdisciplinary. The successful candidate will be free to explore other areas and pursue additional collaborations while at the Institute.

The specific project will involve working with Tanmoy Bhattacharya and Bette Korber on:

* HIV evolution and defining characteristics of the virus at transmission; * Design HIV vaccines that specifically address characteristics of the virus at transmission and early immune responses; and * Develop cutting-edge phylogenetic methodologies.

The vaccine design concepts will be tested by experimentalist colleagues at other institutions, and we have access to data pertinent to acute infections. A strong background in programming, statistics and biology is highly desirable.

Other areas of research at the institute include ecology, virology and immunology, evolvability and robustness, population genetics, genomic imprinting, paleobiology, evolution of development, genotype to phenotype mapping, biological computation and communication, metabolic scaling relationships, and the origins of the TCA cycle and the genetic code.

An advantage of this postdoc position is that in addition to working on a main focus area, the opportunity exists to diversify and to strike up independent collaborations with faculty or other postdocs with shared interests. This Postdoctoral Researcher will be appointed for a two-year term on a full-time basis, with the possibility of a one-year extension contingent upon continuation of funding and performance. This position is funded by a subaward to SFI by Duke University NIH Award entitled, "Centralized HIV-1 Genes and Vaccines."

Applications are welcome from candidates in any country. Women and minorities are especially encouraged to apply. Successful foreign applicants must acquire an acceptable visa (usually a J-1) as a condition of employment.

Application Requirements

1. Curriculum vitae (including publications list, if any). 2. Statement of research interests and what you want to accomplish during an SFI postdoctoral fellowship. 3. Three letters of recommendation from scholars who know your work. (The letters should be sent independently of the application package and must be received by the deadline date. To complete the online application, please be prepared to provide e-mail addresses of the three individuals who will recommend you. SFI will contact them directly with instructions for submitting letters, however it is your responsibility to ensure that the letters are received by the deadline.) 4. (Optional) A copy of one paper you have written in English, either published or unpublished.

Online Application (Preferred): Online Application (Preferred): You may submit your materials using our online application form. We strongly encourage you to apply online to expedite your application. Please see http://www.santafe.edu/education/hivpostdoc.php for more information and application instructions.

Postal Mail/Courier: Application packages sent via postal mail will also be accepted. Do not bind your application materials in any manner. Include your e-mail address and/or fax number. Mail application materials to:

Postdoctoral Research Opportunity Santa Fe Institute 1399 Hyde Park Road Santa Fe, NM 87501 USA

DEADLINE: For full consideration, all application materials, including three letters of recommendation, must be received electronically (preferred) or via post by December 2, 2005.

For further information, please e-mail postdocinfo@santafe.edu or call (505) 946-2746.

SFI is an equal opportunity employer.

******* Stacey Lydon Santa Fe Institute Administrative Assistant 1399 Hyde Park Road Education and International Programs Santa Fe, NM 87501

Direct Line: (505) 946-2746 http:// www.santafe.edu FAX: (505) 982-0565 e-mail: staceyl@santafe.edu

****

staceyl@santafe.edu

Toulouse EnvMicrobiology

Post-doc position: Environmental & Evolutionary Microbiology

Applications are invited for a researcher to work for two years on an ANR funded project based at Toulouse, France, and with a start date not later than March 2006. We are seeking a highly motivated post-doc with a strong background in environmental microbiology to join a new group working on the ecological and evolutionary aspects of vertebrate - bacteria interactions. Growing evidence shows that micro-organisms can affect vertebrate populations as well as certain of their life history traits and behaviours. By using birds as experimental models we are attempting to understand the ecological and genetic factors that shape these interactions. The candidate should have a broad knowledge in environmental microbiology, in particular of current approaches in bacterial community and phylogenetic analyses. Furthermore, s/he should have a keen

interest in applying this knowledge to ecological and evolutionary questions using field and laboratory based experimental approaches. Previous expertise in vertebrate - microbial interactions would be an asset. The successful candidate will be located in the laboratory of "Evolution and Biological Diversity" at the University of Toulouse III, South of France. The laboratory comprises eight research teams (http://www.edb.ups-tlse.fr) situated within the university campus. Ideally s/he should be willing to interact among groups working on the evolution and structure of biological systems. The rich academic environment of Toulouse should also facilitate collaborations with other microbiologists within the university or other laboratories from various institutions such as INRA, INSA, ENVT. Informal enquiries may be directed to Philipp Heeb, heeb@cict.fr . Applicants should submit a cover letter, Curriculum Vitae, two references and a list of publications by email to Philipp Heeb, Laboratoire Evolution et Diversité Biologique, Université Paul Sabatier, Tel: +33 561 55 64 50

–

heeb@cict.fr

Laboratoire Evolution et Diversité Biologique Université Paul Sabatier III UMR 5174 CNRS/UPS Batiment IVR3 118 Route de Narbonne F31062 Toulouse, CEDEX 9

office +33 (0)5 61 55 64 50 fax. +33 (0)5 61 55 73 27

http://www.edb.ups-tlse.fr/ Philipp Heeb <heeb@cict.fr>

UArizona BeetlePhylogeny

Postdoctoral Researcher, Phylogeny of Beetles, University of Arizona

A Research Associate/Postdoctoral in Entomology position is available beginning 15 January 2006, for a three-year period in David Maddison's laboratory to participate in unraveling the phylogeny of beetles through the Assembling the Beetle Tree of Life (BTOL) effort. The position will mainly entail gathering and analyzing molecular sequence data, but the postdoc will also help plan the project and produce papers with PIs at other institutions (Farrell at Harvard, Whiting at BYU).

The postdoc will be primarily responsible for obtaining sequences of several genes across a large sample of beetles, and for the analysis of these data. The postdoc will also participate in the design (through testing and suggestions) of an automated DNA sequence workflow solution currently under development, various other tools built into the Mesquite environment for data analysis, and the beetle pages of the Tree of Life Web Project.

Minimum Qualifications: * Ph.D. in a biological science. * Experience with research in molecular systematics, including phylogenetic analyses of DNA sequences.

Preferred Qualifications * Experience with research on insects. * Experience with computer tools used in systematics. * Proven publication record.

More administrative details are provided on the University of Arizona Human Resources web site, https://www.uacareertrack.com/ (search for job number 33882). [Please note that this website was not designed to be compatible with some browsers.]

Please provide the names, email addresses and phone numbers of three references in your materials to David (contact information below). In addition, please send copies of up to three relevant publications/manuscripts/works.

–

David R. Maddison Professor and Curator PHONE: (520) 621 9781 Department of Entomology FAX: (520) 621 1150 University of Arizona email: beetle@ag.arizona.edu Tucson, AZ 85721 U.S.A.

home page: http://david.bembidion.org Tree of Life: http://tolweb.org MacClade: http://macclade.org Mesquite: http://mesquiteproject.org David Maddison <beetle@ag.arizona.edu>

UCaliforniaDavis SalamanderGenetics

We have an immediate opening for a postdoctoral associate in Brad Shaffer's lab in the Section of Evolution and Ecology, University of California, Davis. For more information on the lab and UCD, visit our website at http://www2.eve.ucdavis.edu/shafferlab Our immediate opening is for a person to work on a recently-funded NSF project on hybridization dynamics between native and introduced tiger salamanders in California. The work includes both field and mesocosm experiments of

hybrid fitness components, as well as molecular work on the mechanistic underpinnings of hybrid fitness. Because the California tiger salamander is an endangered species, the project has both basic and applied relevance to conceptual areas in speciation and conservation biology. The opportunity to work on related projects of the successful candidate's choosing may also be available.

Salary: negotiable, commensurate with experience.

To apply, please send a letter of interest, along with a CV and three letters of reference to Brad Shaffer (hbshaffer@ucdavis.edu). We will start reviewing applications by December 15, 2005.

The Section of Evolution and Ecology at UC Davis is a dynamic, interactive research group, and the successful candidate would interact with a range of population biologists here at Davis. The town of Davis is small, well-situated to both the San Francisco Bay area and the Sierra Nevada, and best of all, nestled in the Great Central Valley.

H. Bradley Shaffer Section of Evolution and Ecology & Director, Center for Population Biology University of California One Shields Ave. Davis, CA 95616

phone 530-752-2939 fax 530-752-1449 Website http://www2.eve.ucdavis.edu/shafferlab hbshaffer@ucdavis.edu hbshaffer@ucdavis.edu

UChicago BiodiversityPatterns

Postdoc - Research on Biodiversity Patterns University of Chicago

Seeking a postdoctoral research associate to participate in a collaborative analysis (Jablonski-Roy-Valentine) of the origin, maintenance, and future of spatial diversity patterns in marine bivalves, particularly the latitudinal gradient. Research will involve quantifying present-day biogeographic patterns and the late Cenozoic biodiversity dynamics underlying them, using a taxonomically standardized and spatially explicit global database. Associate will assist in the construction of modern and fossil databases, and participate in analyses of diversity dynamics. Experience in statistical analyses and database programming required, along with familiarity with paleontological and/or biogeographic data. One-year appointment starting date negotiable but prefer January-March 2006, potentially renewable for second year. Requires either PhD in hand or dissertation submitted and approved for degree. Please send an application letter, CV, and names and email addresses of two references via email to Dr. David Jablonski at the University of Chicago <djablons@uchicago.edu>, by December 1, 2005

Dr. David Jablonski William R. Kenan, Jr., Professor, Geophysical Sciences Chair, Committee on Evolutionary Biology University of Chicago

mailing address: Department of Geophysical Sciences University of Chicago 5734 South Ellis Avenue Chicago, IL 60637, USA Phone: 1-773-702-8163 FAX 1-773-702-9505

David Jablonski <djablons@uchicago.edu>

UIdaho Biofilm Plasmids

Postdoctoral Scientist at the University of Idaho: Monitoring and Modeling the Spatial Dynamics of Plasmid Transfer

We have an immediate opening for a postdoctoral scientist for a period of up to four years. The postdoctoral scientist will study the dynamics of antibiotic resistance plasmid spread and persistence in biofilms. The project is in collaboration with the group of mathematician Dr. Steve Krone, who develops cellular automata models that allow prediction of spatially explicit patterns of plasmid spread. The position offers the opportunity to carry out research in a dynamic and interdisciplinary research environment with excellent resources (http://www.sci.uidaho.edu/biosci/-CRePE/index.html and http://styx.ibest.uidaho.edu/-ibest/index.html). The project is funded by a 5-year NIH grant. The candidate should have a Ph.D. in microbiology, molecular biology, bioengineering, or related discipline, a background in prokaryotic molecular biology or genetics, and the ability to work well in an interdisciplinary team. The candidate should have at least one year of experience working with bacterial cultures. Experience working with chemostats or flow cells, and experience with confocal laser microscopy are a plus. A fundamental understanding of the biology and ecology of plasmids and antibiotic resistance is desired.

For more information, candidates can write to Dr. Eva M. Top, University of Idaho (evatop@uidaho.edu). Please send a letter of interest, along with your curriculum vitae to Eva Top, and include the names and contact information of three references.

The University of Idaho is an equal opportunity/affirmative action employer

Dr. Eva Top Associate Professor Department of Biological Sciences University of Idaho 347 Life Sciences South Moscow ID 83844-3051 Phone: 1-208-885-5015 Fax: 1-208-885-7905 http://www.sci.uidaho.edu/biosci/labs/-top/ evatop@uidaho.edu evatop@uidaho.edu

UMontana PlantEvol

Postdoc – Plant Evolutionary Genetics University of Montana

Seeking a postdoctoral research associate to collaborate on research into the mechanisms of adaptation, speciation and/or selfish genetic evolution in flowering plants. The position is funded by a NSF-FIBR grant on the genetics of speciation the wildflower Mimulus (http://www.biology.duke.edu/-mimulus/index.html); the shared resources developed through the FIBR project provide an exciting opportunity to bridge the fields of ecology, evolution and genetics/genomics in an emerging model system. Active areas of research in the Fishman lab include the evolution of floral and mating system diversity, the genetics of hybrid incompatibilities, and selfish genetic evolution (cytoplasmic male sterility and chromosomal meiotic drive). The postdoc will participate in one of these projects, but will also be encouraged to initiate and develop independent research. More information about the Div. of Biological Sciences at UM (located in scenic Missoula, MT) can be found at http:/-/biology.umt.edu/dbs/ . Candidates with prior laboratory experience in molecular genetics, quantitative and population genetics, and/or cytogenetics are particularly encouraged to apply, but those with a strong interest in plant evolution and a willingness to learn new techniques are also welcome. The position is for one year (start date fairly flexible, but Spring 2006 preferred) with funds available for a second year by mutual agreement. For additional information or to apply, please email Dr. Lila Fishman at the University of Montana (lila.fishman@mso.umt.edu). Applications should include a letter of interest and CV (including contact info for 2 professional references). Review of applications will begin Dec. 21, 2005.

Lila Fishman Assistant Professor Division of Biological Sciences 104 Health Sciences Bldg. University of Montana Missoula, MT 59812 lila.fishman@mso.umt.edu lila.fishman@mso.umt.edu

UNewSouthWales EvolGeneticsAgeing

A one year postdoctoral position, with possible renewal for a second and third year is available to work with Robert Brooks and Russell Bonduriansky on the evolutionary genetics of ageing, age-dependent reproductive effort and sexual selection in the field cricket Teleogryllus commodus. We are seeking applicants with research interests and skills in any of the following fields: quantitative genetics, computational biology, life history theory, ageing, sexual selection, performance physiology and demography. The successful applicant will work collaboratively within the Evolutionary Ecology of Sexual Reproduction Research Group at The University of New South Wales, Sydney, Australia on a variety of new and ongoing laboratory and field projects as well as to develop her/his complementary research directions. Applicants should also be prepared to submit an ARC Discovery grant in the February 2006 round.

Please send a CV, names and contact details of two academic referees, and a statement of research interests to rob.brooks@unsw.edu.au. Review of applications will begin on 28 November and will continue until the position is filled.

Remuneration will be in line with the UNSW academic level A6 (see http://www.hr.unsw.edu.au/-acadsal.htm).

School of Biological, Earth and Environmental Sciences The University of New South Wales Kensington, Sydney 2052 NSW, Australia PH: +61-2-9385-2587 FAX: +61-2-9385-1558 http:/-/www.bees.unsw.edu.au/school/staff/brooks/-brooksrob.html rob.brooks@unsw.edu.au

UOxford PlantEvol

POSTDOC IN DEPARTMENT OF PLANT SCIENCES, UNIVERSITY OF OXFORD

Applications are invited for a researcher to work for one-year on an EC funded project with a start date on

or soon after 1st February 2006. The grant holder is Dr David Boshier and the successful candidate will be under his immediate direction and in his research lab.

The SEEDSOURCE project "Developing best practice for seed sourcing of planted and natural regeneration in the neotropics" brings together researchers from Europe and Central and South America. The main objective of the postholder will be to provide estimates of neutral and adaptive variation in the study species and to investigate how landscape changes may affect plant fitness via altered mating patterns. The work will be lab-based and will work with seed and leaf samples collected by collaborating institutes. Research skills and expertise will be required in developing and analysing nuclear microsatellites; and in software programmes for estimating population genetic statistics and gene flow. Additional experience and expertise in any of the following would be an advantage: DNA sequencing; plant mating systems; conservation and management of trees and forest ecosystems.

Further particulars are available on http://-www.plants.ox.ac.uk or from the Administrator. The appointment will be on the Research Staff Grade 1A scale with a starting salary in the range £20,044 - £30,002p.a. Informal enquiries may be directed to David Boshier on david.boshier@plants.ox.ac.uk

Applications, including curriculum vitae and the names and contact details of two referees, and clearly quoting reference number AP05017 should be sent to the Administrator, Department of Plant Sciences, University of Oxford, South Parks Road, Oxford OX1 3RB. The closing date for applications is 14 December 2005.

Sarah Rendell <sarah.rendell@plants.ox.ac.uk>

USheffield EvolAvianSpermDiversity

THE UNIVERSITY OF SHEFFIELD

Postdoctoral Research Associate 2 Posts

Department of Animal and Plant Sciences

Ref: R3784 Closing Date: 30/11/05 Grade: 7 Salary: From £22,774 - £24,161 per annum

The post holders will work with Prof Tim Birkhead on a Leverhulme- funded project designed to establish the evolutionary causes and consequences of sperm diversity in birds. The post holders should possess a current ringing (banding) licence, be prepared to spend time making image analysis measurements of sperm using a microscope and spend time in Europe and/or North America conducting field work. The posts are tenable from January 2006 for a period of 12 months, renewable for up to 3 years, subject to confirmation of funding.

For further information please visit http://-www.shef.ac.uk/jobs/cms_results.php?search=r3784, or email jobs@sheffield.ac.uk for an application pack (please remember to quote ref R3784 in all enquiries).

Jennie Brookes <J.M.Brookes@sheffield.ac.uk>

UStThomas Biol

Postdoctoral Associate

The Department of Biology at the University of St. Thomas invites applications for a postdoctoral associate position integrating research and teaching at the undergraduate level. The position is renewable for up to three years (in 12-month contracts, with benefits) and includes approximately 50% time dedicated to teaching and 50% to research. Research sponsors are working in the following disciplines: cellular and molecular biology, ecological stoichiometry, immunology, microbiology, neuroscience, physiological ecology, plant physiology, and plant ecology. Candidates are strongly encouraged to contact potential sponsors to discuss possible areas of collaboration. (See http://www.stthomas.edu/biol/ <http://-www.stthomas.edu/biol/> for a description of our department and the research interests of our faculty). The Biology Department is housed in the 200,000 sq. ft. Frey Science and Engineering Center, which opened in 1997 and is equipped with state of the art instructional and research facilities.

Candidates must have a Ph.D. Send cover letter, identifying potential faculty sponsor(s); curriculum vitae; statements of teaching philosophy and of research experience and goals; and three letters of reference to: Dr. Amy Verhoeven at http://-www.stthomas.edu/hr/ <http://www.stthomas.edu/-hr/or mail to : #AQU217, 2115 Summit Avenue, St. Paul, MN 55105. For full consideration, application materials should be received by 16th January 2006.

Established in 1885, the University of St. Thomas is Minnesota's largest private university with an enrollment of 11,000 students studying in a wide range of

liberal arts, professional, and graduate programs. Inspired by our Catholic tradition and the rich resources of the dynamic, urban Twin Cities, St. Thomas seeks to develop morally responsible individuals who combine career competency with cultural awareness and intellectual curiosity.

The University of St. Thomas has a strong commitment to the principles of diversity and inclusion, to equal opportunity policies and practices, and to the principles and goals of affirmative action; and, in that spirit, seeks a broad spectrum of candidates who have demonstrated a commitment to these principles. The University strongly encourages nominations of, as well as applications from, women, persons of color, and persons with disabilities.

Simon K. Emms, Chair, Department of Biology, OWS 390, University of St. Thomas, St. Paul, MN 55105

skemms@stthomas.edu 651 962-5228

"Emms, Simon K." <SKEMMS@stthomas.edu>

UTennessee EvolTheory

10/31/05

Postdoc in Evolutionary Theory University of Tennessee, Knoxville

I am looking for a post-doctoral researcher interested in using mathematical models for studying one or more of the following topics: speciation, adaptive radiation, coevolution, macroevolution, and cultural evolution. For the first three topics the emphasis will be on multilocus genetics, spatial structure, and interactions of ecological and evolutionary processes. An ideal candidate will be using a combination of simple analytical models and intensive numerical simulations and will be motivated by biological questions and data.

To apply send a curriculum vitae, a description of research interests and experience, and the names, addresses, phone numbers, and e-mail of three references. Informal inquiries are welcome.

Sergey Gavrilets Department of Ecology and Evolutionary Biology Department of Mathematics University of Tennessee, Knoxville TN 37996 phone: (865) 974-3065 e-mail: gavrila@tiem.utk.edu web: www.tiem.utk.edu/ ˜ gavrila Sergey Gavrilets <gavrila@tiem.utk.edu>

UToronto EvolGen

Postdoc: Evolutionary biology of mutation and recombination University of Toronto

I am seeking a postdoc who is interested in working on projects related to the evolutionary biology of mutation and recombination. Current work in the lab focuses on variation in these traits within species. In particular, I am interested in understanding the extent to which these traits are condition dependent. Candidates interested in working on my existing projects or on other projects related to mutation and/or recombination are encouraged to apply. The position is for one year though a second year may be possible.

The successful applicant will become a member of a large and interactive community of evolutionary biologists at the University of Toronto. The growing strength in evolutionary biology in both the Zoology and Botany departments has led to the forthcoming formation of a Department of Ecology and Evolutionary Biology. The city of Toronto is fantastically diverse and an excellent place to live.

Applicants should have a Ph.D. in evolutionary biology with a strong background in evolutionary genetics. Experience with basic molecular techniques and statistics is also an asset. Interested persons should send the following information: CV, statement of research interests, and names and contact information for three references. Applications send by email should be in .pdf format. Informal inquires are welcome. Start date is flexible. Applications will be reviewed as they are received until position is filled.

Aneil Agrawal (afagrawal@zoo.utoronto.ca) Assistant Professor & Canada Research Chair Department of Zoology University of Toronto 25 Harbord St. Toronto, ON, M5S 3G5

afagrawal@zoo.utoronto.ca afagrawal@zoo.utoronto.ca

UtrechtU 2 EvolBehavEcol

Utrecht University, Behavioural Biology, Padualaan 14, PO Box 80086, 3508 TB Utrecht, The Netherlands.

+31 (0)30 2535406 (office), 2535401 (dept.), 2521105 (fax). http://www.bio.uu.nl/behaviour/Reader/ E-mail: s.m.reader@bio.uu.nl

Utrecht University, Utrecht, The Netherlands: Two postdoctoral fellowships on social learning strategies

Behavioural Biology (Department of Biology) and Department of Innovation and Environment (Faculty of Geosciences)

Applications are invited for two postdoctoral positions to work on learning strategies in fish (position 1) and humans (position 2). This collaborative project focuses on how environmental uncertainty influences the choice between social and personal information gathering strategies, and will take a mainly experimental approach with complimentary studies on fish and human behaviour. Further details on the project are at www.bio.uu.nl/behaviour/Reader . We are seeking experienced applicants with a background in biology, psychology, economics, or the social sciences, with applicants expected to collaborate closely on fish and human behavioural studies. We offer a full time appointment for three years, with a salary commensurate with experience and between 2191-4049 euros/month (scale 10/11 CAO Dutch Universities). The salary is supplemented by an additional holiday bonus of 8%. The applicants will work within both Behavioural Biology (Dept. of Biology) and Innovation and Environment (Faculty of Geosciences), with one applicant formally based with each group. You will work alongside Dr. Simon Reader, Prof. dr. Marius Meeus, and Dr. Rogier Donders. The collaborative team also includes Professors Robert Boyd, Celia Heyes, Kevin Laland, Louis Lefebvre, and Peter Richerson.

For additional information please contact Dr. Simon Reader (s.m.reader@bio.uu.nl) or Prof. dr. Marius Meeus (m.meeus@geo.uu.nl). Written applications, with curriculum vitae, list of publications and two suggested referees (with e-mail and postal contact information), should be sent in duplicate before November 30, 2005 to Dr. Simon Reader, Utrecht University, Behavioural Biology (Gedragsbiologie), Padualaan 14, PO Box 80086, 3508 TB Utrecht, The Netherlands, or emailed as a single PDF file to s.m.reader@bio.uu.nl (electronic applications preferred). Please state clearly which position you are interested in. We gratefully acknowledge funding by the NWO Evolution and Behaviour programme (see www.nwo.nl).

Simon Reader <s.m.reader@bio.uu.nl>

WayneStateU PhenotypicEvol

Postdoctoral Position: Molecular mechanisms of differential body and organ growth

An NIH-funded postdoctoral position is available immediately in our lab . The position is initially funded for three years. The lab investigates molecular mechanisms that govern phenotypic evolution in selected arthropod groups, and our current focus is on genetics of leg size variation in insects (Mahfooz et al. 2004. PNAS 101: 4877-4882). Applicants with expertise and interests in developmental genetics, insect biology, and invertebrate/insect transgenics will be given special consideration.

To apply, please send a CV, up to 3 relevant manuscripts, and contact information for three references. Please send applications (either electronically or via post) to:

Dr. Aleksandar Popadic Department of Biological Sciences Wayne State University 5047 Gullen Mall Detroit, MI 48202 Email: apopadic@biology.biosci.wayne.edu

Aleksandar Popadic <apopadic@biology.biosci.wayne.edu>

WorkshopsCourses

EMBO Portugal CelegansEvol May24-26

EMBO WORKSHOP ON THE STUDY OF EVOLUTIONARY BIOLOGY WITH CAENORHABDITIS ELEGANS AND CLOSELY RELATED SPECIES 24-26 MAY 2006, INSTITUTO GULBENKIAN DE CIÊNCIA, OEIRAS, PORTUGAL FIRST CALL FOR PARTICIPANTS (DEADLINE 15 JANUARY 2006)

We are happy to announce the first international workshop dedicated to the study of evolution with Caenorhabditis species. The workshop will be held for three days from 24 to 26 of May 2006, at the Instituto Gulbenkian de Ciencia in Oeiras, 20km from Lisbon, in Portugal. Reception will take place on the 23ˆrd .

The program will encompass several sessions on diverse topics such as: - breeding system evolution and male function; - genotypic distributions during inbreeding and adaptation to novel environments; - genetics of complex characters; - intra and inter-specific developmental genetics of vulva differentiation, sex determination, behavior and host-parasite interactions;

A session will also be dedicated to Caenorhabditis spp. evolutionary biology resources.

We plan to host approximately 50 participants. If you would like to attend, please send a brief description of your research together with a title and abstract of a 30min talk or poster to Henrique Teotónio (teotonio@igc.gulbenkian.pt), until the 15th of January 2006.

There is no registration fee and accommodation and subsistence costs will be covered for all participants. Commercial participants will however have to pay 450? for registration. We will also be able to give 20 travel aid grants for European researchers (350? each) and 5 travel grants for non-European researchers (700? each), with preference given to early-stage researchers (PhDs and PostDocs).

Further details about the host Institute can be found at (www.igc.gulbenkian.pt <http://-www.igc.gulbenkian.pt/>); Soon we will have a workshop webpage with more details.

Organizing Committee: Henrique Teotónio (IGC, Portugal) Marie-Anne Felix (Institut Jacques Monod, France) Patrick Phillips (University of Oregon Eugene, USA) Ricardo Azevedo (University of Houston, USA)

Funding by: European Molecular Biology Organization Fundaão Calouste Gulbenkian

henrique teotonio <teotonio@igc.gulbenkian.pt>

Training in TropicalLakes

The Nyanza Project is an NSF-sponsored Research Training Course in Tropical Lakes. Our research focus is on paleoclimates, limnogeology, limnology, aquatic ecology and evolution. Every summer a small number of undergrad and a few grad students are selected through a competitive application process to participate in a course with lectures and significant independent research projects, based on the shores of Lake Tanganyika (East Africa). This is Africa's oldest and deepest rift lake, with an extraordinary paleoclimate record in its sediments, a dynamic tectonic history, very productive fisheries, and highly derived, co-evolved, largely endemic fauna. If your career objectives are linked with any of these research topics, if you enjoy interdisciplinary scientific interaction and if you see tropical lakes as model systems for understanding the natural world and potentially part of your research career, have a look at our web page: http://www.geo.arizona.edu/-nyanza/index.html Deadline Dec. 20th.

–

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

The Nyanza Project: Research Training in Tropical Lakes - http://www.geo.arizona.edu/nyanza/-index.html The Natural History Museum - Global Reach http://www.nhm.ac.uk/nature-online/science-of-natural-history/science-at-the-museum/our-global-reach/ The Gastropods of Lake Tanganyika: Diagnostic key, classification & notes on the fauna http:/www.limnology.org/publications.html ellm@nhm.ac.uk ellm@nhm.ac.uk

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 the correct category "Conference:, Graduate position:, Job:, Other:, Postdoc:, Workshop:" and then the message stands a better chance of being correctly parsed. Note that the colon is mandatory.

The message will be stored until the middle of the night (local time). At a predetermined time, the collected messages will be captured and then processed by programs and filters. If the message is caught by one of the filters (e.g. a subject header is not correctly formated) the message will be send to me at Golding@McMaster.CA and processed later. In either case, 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.