



UNIVERSITY OF OXFORD

DEPARTMENT OF ZOOLOGY

TINBERGEN BUILDING

SOUTH PARKS ROAD, OXFORD, OX1 3PS

Acting Administrator:
Miss E A Stedman

Ref: AT08016

WEB DEVELOPER

Grade 7: Salary range:£26,666 - £32,796

Job description and further particulars

Location: Spatial Ecology and Epidemiology Group, Tinbergen Building, Department of Zoology, University of Oxford, South Parks Road, Oxford, OX1 3PS.

Grant title: Environmental change and the epidemiology of *Plasmodium falciparum* malaria in Africa: 2005-2030

Contract period: one year fixed-term commencing 01/07/2008, renewable for a further two years.

Responsible to: Dr Simon I. Hay

Zoology reference number: AT08016 (to be quoted in all correspondence).

SEEG background and purpose

The Spatial Ecology and Epidemiology Group (SEEG) has core research interests in the spatial and temporal dynamics of a range of infectious and vector-borne diseases. The group is led by Prof. David Rogers. The SEEG has a variety of international collaborators worldwide, with whom they aim to generate high impact science with a direct influence on policy and control. Paramount among these is the Malaria Public Health and Epidemiology Group (MPHEG) in Nairobi (see below).

MPHEG background and purpose

The MPHEG in Nairobi is directed by Prof. Robert W. Snow. The MPHEG is part of the Centre for Geographic Medicine, Kenya Medical Research Institute. Many scientists undertake a wide range of research on the operational performance of malaria interventions when delivered as part of national programmes in Kenya, Zambia and Somalia against a complimentary research agenda which examines the epidemiological basis of malaria infection, disease and public health consequences across Africa. Part of these activities are under the umbrella of the Malaria Atlas Project (MAP; <http://www.zoo.ox.ax.uk>).

MAP background and purpose

The main goal of the MAP is to develop a detailed model of the spatial limits of *Plasmodium falciparum* and *P. vivax* malaria at a global scale and its endemicity within this range. The last attempt to map malaria risks worldwide was in the 1960s. For many areas of the world this, unfortunately, still represents our best information on malaria risk. We believe that our new efforts to map, model and project populations at risk of malaria will provide a more contemporary and robust means to assess current and future malaria disease burdens. An exciting new development of the MAP is to complement this information with maps of the range of the dominant *Anopheles* vectors of malaria globally. We also have plans to extend our attentions to inherited disorders of the red blood cells. Some of these conditions are of public health concern and important for the MAP because they moderate human susceptibility to *P. falciparum* malaria.

The successful candidate will be a participant in the wider collaboration of the MAP.

Key MAP publications

Guerra, C.A., Gikandi, P.W., Tatem, A.J., Noor, A.M., Smith, D.L., Hay, S.I. and Snow, R.W. (2008). The limits and intensity of *Plasmodium falciparum* transmission: implications for malaria control and elimination worldwide. *Public Library of Science Medicine*, **5**(2): e38.

Guerra, C.A., et al. (2007). Assembling a global database of malaria parasite prevalence for the Malaria Atlas Project. *Malaria Journal*, **6**: 17.

Hay, S.I. & Snow, R.W. (2006). The Malaria Atlas Project: developing global maps of malaria risk. *Public Library of Science Medicine*, **3**(12): e473.

Snow, R.W., Guerra, C.A., Noor, A.M., Myint, H.Y. & Hay, S.I. (2005). The global distribution of clinical episodes of *Plasmodium falciparum* malaria. *Nature*, **434**(7030): 214-217.

Key responsibilities of the post

1. Develop an online MySQL data repository for MAP scientists to update and augment data themes and ultimately to support public domain data release in June 2009. The system will allow moderated update of data by authenticated users and implement sophisticated content management procedures on both a live and mirrored development sites.
2. Scope requirements and advise on purchase of the necessary supporting infrastructure from the Oxford University Computing Services (<http://www.oucs.ox.ac.uk/nsms/>).
3. Lead in the improvement of the on-line presence and, thus, public engagement activities of the MAP. Our website is the primary medium through which we identify with our user communities (research scientists, those engaged in operational malaria control and the lay public).
4. Develop innovative means for sharing MAP's growing epidemiological and environmental databases both within the project and with the larger scientific community. These should include interactive interfaces based on Google Maps, Google Earth and/or other tools.
5. Maintain, improve and update web resources regularly with new data and project developments.
6. Develop MAP's Google outreach project.

General education and skills background

(i) Education, qualifications and training. First or upper second class Bachelor degree. Post-graduate degree (preferably PhD or equivalent) in computer sciences/information technology **or** equivalent professional experience.

(ii) Knowledge, skills and experience: at least one or two years of relevant web development experience (please provide relevant URLs and level of involvement in your application). A portfolio of project experience will be expected. Experience of maintaining a web-server. Experience in the development and maintenance of MySQL (or similar) databases. Familiarity and demonstrable ability to programme in one or more of HTML/Perl/ASP/PHP/Flash/Python.

Application procedure

Please send a *curriculum vitae* and three supporting references from those with recent experience of your work performance. We also require a covering letter of application stating why this position is of interest to you and how your skills, experience and motivation make you a

suitable candidate for the project with URLs of your previous work and some comment on your level of involvement. Please send all details to the Personnel Office, Department of Zoology, University of Oxford, South Parks Road, Oxford, OX1 3PS or by e-mail to recruit@zoo.ox.ac.uk quoting reference **AT08016**. Informal enquiries for clarification are also welcomed by e-mail to simon.hay@zoo.ox.ac.uk.

The closing date for applications is **Friday 06 June 2008** with interviews to be held on **Friday 13 June 2008** in the Department of Zoology at the University of Oxford. The interview panel will consist of Prof. Robert Snow, Dr Simon Hay, Dr Fred Piel and Dr Anand Patil and a representative from Oxford University Computing Services. You will be required to give a 20 minute presentation on your work featuring projects with which you have been involved. The appointment will be from 01 July 2008. Successful applicants will be subject to a **three month probationary period**.

This appointment is subject to proof of right to work in the UK.

DEPARTMENT OF ZOOLOGY

The Department of Zoology has long had an international reputation for research in whole organism biology, based on rigorous theoretical foundations. More recently, with the injection of substantial outside funding, purpose-built accommodation, and a new generation of faculty, it has expanded its horizons by building on its strengths. The animal behaviour, ornithology and ecology groups have been supplemented by equally strong groups in the epidemiology of infectious disease, evolution, comparative developmental biology, entomology and cell biology. Although each group has its own identity, research area and seminar series, an increasing proportion of the Department's research output reports inter-group projects.

The Zoology building, shared with Experimental Psychology, was first occupied in 1970, and has recently undergone extensive internal renovation to produce new teaching, bioinformatics, DNA sequencing, and ancient biomolecules research laboratories. The University Field Station at Wytham and Tubney House (the headquarters of the Wildlife Conservation Research Unit) are also part of the Department of Zoology. Although the Department's research vision remains influenced by those who went before (such as Charles Elton, David Lack and Niko Tinbergen) our more recently honoured senior staff such as Professor Sir John Krebs, Professor Lord Robert May and Professor Sir Richard Gardner have contributed new research directions and the recruitment of the next generation of biologists. The Department comprises approximately 50 members of academic staff and research fellows (nine of whom are Fellows of the Royal Society), 80 research assistants and 160 graduate students. While the Department remains one of Zoology, it has close teaching and research ties with the Departments of Plant Sciences, Biochemistry, Genetics, Anthropology, and the Sir William Dunn School of Pathology.

General Information and Conditions

Referees

The University will assume that it is free to approach referees at any stage unless the candidate clearly stipulates otherwise (*i.e. candidates who wish a referee or referees to be approached only with their specific permission and/or if they are being called for interview are asked to state such requirements explicitly alongside the details of the relevant referee(s)*).

Security/Proof of Identity

The Department may undertake pre-employment identity and security checks on an applicant. Original documentation may be required to verify an individual's identity and academic qualifications.

Probationary Period

There will be a probationary period of **three months**.

Annual Leave

The annual leave allowance is normally 38 days per year, (this figure of 38 includes 8 public holidays). The actual distribution of annual holidays, excluding the public holidays, is subject to the agreement of the Head of Department and normally comprises 20 personal days during the whole leave year and five days at Christmas and five days at Easter when the Department closes down).

Pension Scheme

Staff under the age of 60 are normally eligible to join the University's Superannuation Scheme, a contributory scheme. Subject to the Statement of Pensions Policy, the appointee will be deemed to be in membership of the above pension scheme until such time as he/she gives notice in writing to exercise the right not to be a member of the scheme.

Maternity/Paternity Scheme

The University has a generous maternity leave scheme and also offers paternity leave to expectant fathers and partners and adoption leave. It offers subsidised nursery places and tax and National savings schemes. However, please note that there is a long waiting list for nursery places. It is particularly important to refer to the website <http://admin.ox.ac.uk/eop/child> for further information including up to date information about the length of the waiting list and alternative sources of information about childcare in the Oxford area.

No smoking

The University has a no smoking policy. Smoking is not permitted within the Department of Zoology.

Car Parking

The University operates a car parking permit scheme and applications are processed in accordance with agreed guidelines, since parking spaces are strictly limited. A fee is charged (reviewed annually).

Equal Opportunities at the University of Oxford

As an Equal Opportunity employer, we positively encourage applications from people with different backgrounds. All our jobs are filled in line with our equal opportunities code of practice, which helps us make sure that men and women, people of different races and those with disabilities are all treated fairly.

Policy Statement

The policy and practice of the University of Oxford requires that all staff are afforded equal opportunities within employment. Entry into employment with the University and progression within employment will be determined only by personal merit and the application of criteria which are related to the duties of each particular post and the relevant salary structure. In all cases, ability to perform the job will be the primary consideration. Subject to statutory provisions, no applicant or member of staff will be treated less favourably than another because of his or her gender, marital or civil partnership status, sexual orientation, religion of belief, racial group, age, or disability (<http://www.admin.ox.ac.uk/eop/policy/index.shtml>).

Data Protection

All data supplied by applicants will be used for the purposes of determining their suitability for the post and will be held in accordance with the principles of the Data Protection Act 1998 and the University's Data Protection Policy.