



Postdoctoral Position Mosquito Ecology University of California, Davis

Job Title:	Post-doctoral Scholar in Mosquito Ecology
Location:	University of California, Davis, California USA
Duration:	2 years, starting on July 1, 2017 or after
Unit:	The Vector Genetics Laboratory, UC Davis
Hours/Benefits:	Full time with competitive benefits. Salary contingent on candidate experience.

The Vector Genetics Laboratory (VGL) at the University of California, Davis is seeking applications for a post-doctoral research scholar position in the area of MOSQUITO ECOLOGY. The VGL is dedicated to research and training in the areas of population & molecular genetics, genomics and bioinformatics of insect vectors of human and animal disease. The VGL research agenda is aimed at expanding knowledge that may be applied to improving control of disease vectors and at the same time addresses problems of interest in the field of evolutionary genetics. The VGL has links to multiple Graduate Groups and Centers on the UC Davis campus, including the Center for Population Biology, Department of Evolution and Ecology and the One Health Institute. Find out more about the VGL at: <http://popi.ucdavis.edu/vgl/>

Project Description. The Mosquito Ecology post-doc will be part of a project that is focused on the ecology and genetics of island populations of the primary malaria vector, *Anopheles gambiae*. The study will include field surveys on four islands located off the coast of sub-Saharan Africa (yet to be determined). The goal of the project is the collection of data related to the development of models aimed at describing the behavior of driving transgenes that might be introduced into these field populations to achieve malaria control and ultimately to select a site(s) that would be suitable for a trial release of genetically engineered *An. gambiae*. An assessment of all potential island sites based on available information will be used to identify four candidate sites. Each of these four sites will be visited for the purpose of collecting data on *An. gambiae* ecology and genetics. The ecologist filling this position will play a leading role in the conduct of this field work.

Job Description. We are seeking a person with a strong background in mosquito ecology, an interest in island ecology and experience in conducting field work. The mosquito ecologist will be responsible for providing leadership in the conduct of all field work. He/she should be capable of dealing with the logistical challenges often faced while conducting field work in the tropics and be capable of managing field collection teams. The effort at each field site will include evaluation of best adult trapping methods, intensive collection of adult and larval *Anopheles* species, careful collection of GPS coordinates for each collection site, an evaluation of the potential for establishing laboratory colonies of collected *An. gambiae*. On return to the lab at Davis the mosquito ecologist will identify all *Anopheles* species collected, extract DNA from the *An. gambiae* s.l. samples and utilize established molecular methods to: (i) identify species within the *An. gambiae* complex, (ii) identify *Plasmodium* infected individuals, (iii) identify insecticide resistance genotypes, (iii) identify blood meal sources.

Applicants who utilize techniques such as the application of molecular markers, advanced statistical methods and/or computer-programming skills are desired, but training in the areas of population genomics and bioinformatics will be provided. The mosquito ecologist will be working as part of an interdisciplinary team that includes expertise in population genetics, molecular genetics, genomics, bioinformatics, mathematical modeling and the acquisition and analysis of remotely sensed data. The team is located across the University of California system including UC Irvine, UCLA, UC Berkeley, UC San Diego and of course UC Davis. The person filling this position will be based in the VGL at UC Davis. The candidate should be available to spend periods of up to 3 months at a time in the field.

Candidate qualifications include the following: (i) experience in conducting field work, (ii) conducting adult and larval mosquito collections, (iii) the application of genetic markers for species identification, insecticide resistance genes, blood-meal analysis, etc. The post-doc filling this position should be willing to work as part of an interdisciplinary team and should have experience or interest in one or more of the following: population genomics, bioinformatics or mathematical modeling.

Support is available for 2 years, starting on July 1, 2017 or after.

How to Apply

Please e-mail cover letter explaining your interest and qualifications, resume and the names and contact information for three references to gclanzaro@ucdavis.edu with the subject line "Mosquito Ecology". This position will remain open until filled, but candidates able to start soon will be given preference. This is a 2 year position with the possibility of extension pending funding.