



**PostDoc position at the Freie Universität Berlin**  
**Ecosystem resilience towards climate change**  
**Modelling interacting buffer mechanisms in Mediterranean-type ecosystems**

Ecosystems are known to exhibit buffer mechanisms that increase the resilience of the system towards disturbances or climate change. These buffering mechanisms can for example be effective on the level of the population, the community, or the landscape. The aim of this project is to evaluate the interplay between various buffer mechanisms first for a specific ecosystem (species-rich Mediterranean-type shrublands in south-western Australia) and then to develop a general theory of buffer mechanisms in Mediterranean-type ecosystems.

The successful candidate will develop a vegetation model that simulates the fate of individual plants in the landscape based on ecological processes and their interactions with abiotic factors, such as water availability. The development and application of this model will be closely accompanied by extensive field measurements and experiments of cooperation partners on soil moisture, water fluxes and vegetation dynamics under present and possible future climate conditions. Model experiments on trait variability, species composition and landscape settings will then help to assess the drivers of resilience under present and future conditions.

Your profile:

- PhD in biology, ecology, ecohydrology, environmental science, system science or a related field
- experience in programming (preferentially in C++ and R) and the development and application of process-based simulation models
- excellent publication record
- excellent oral and written communication skills in English (good communication skills in German appreciated but not essential)
- high motivation and good organisational skills, interest to closely collaborate with Australian partners

The position is scheduled for 3 years with an anticipated starting date in October 2014 or later. Payment is according to the German public tariff (100% TV-L E13).

Applications (quoting the reference 21221100/2014/2) should be submitted until Sept. 22<sup>nd</sup> 2014 via email, and preferably as single pdf-file to Prof. Dr. Britta Tietjen, Biodiversity and Ecological Modelling, Freie Universität Berlin: [britta.tietjen@fu-berlin.de](mailto:britta.tietjen@fu-berlin.de)). Applications should include a letter of motivation, a CV including a list of publications, transcripts or degree certificates including grades and proofs of special qualifications. The applicant should arrange for two letters of reference to be sent to the above email address. The Freie Universität Berlin is an equal opportunity employer and specifically encourages female candidates to apply. Disabled persons will be preferred in case of equal qualification.