

JOB DESCRIPTION

Vacancy reference:	SRF33011
Post Title:	Research Assistant in Palaeofire Meta-Analysis and Modelling
Grade:	Grade 6, Spine Point 27
School/Department:	Geography and Environmental Sciences
Reports to:	Professor Sandy P. Harrison
Responsible for:	n/a

Purpose

To provide research support for statistical analysis and modelling of palaeodata on vegetation-fire interactions in the context of the ERC project "Global Change 2.0: Unlocking the past for a clearer future".

Main duties and responsibilities

- Assisting in obtaining and processing both modern and palaeoenvironmental data from external sources, including quality control, and provision of mapped and aggregated outputs from the raw data;
- Analyses of palaeodata using advanced statistical techniques, including constrained regression and generalised linear and additive models;
- Design of numerical models of two-way fire-vegetation interactions;
- Running fire-vegetation model simulations, including provision of mapped and aggregated outputs;
- Assistance in performing data-model comparisons, including use of appropriate statistics and metrics;
- Organisation of personal workload to ensure timely delivery of products to the project;
- Provision of research support in preparing publications and lectures arising from the project.

Supervision received

Professor Sandy P. Harrison (detailed scientific supervision, mentoring and professional development)

Supervision given Not applicable

Contact Not applicable

Terms and conditions

Full-time, Fixed-term for up to 2 years. Percentage of time spent on the project: 100%. This document outlines the duties required for the post to indicate the level of responsibility. It is not a comprehensive or exhaustive list and the line manager may vary duties from time to time, which do not change the general character of the job or the level of responsibility entailed.

PERSON SPECIFICATION

Job Title	School/Department
Research Assistant in Palaeofire Meta-Analysis and Modelling	SAGES/Geography and Environmental Science

Criteria	Essential	Desirable
Skills Required	<ul style="list-style-type: none"> Analytical skills, including experience with TWA-PLS, GLMs and geospatial statistics High-level of programming skills (R, Fortran, Python) Good communication skills Good organisational skills, including the ability to work to tight timetables 	<ul style="list-style-type: none"> Skills in mapping and the design of figures
Attainment	<ul style="list-style-type: none"> Academic qualifications to MSc standard 	<ul style="list-style-type: none"> Previous research / professional experience background in geography, ecology, environmental physics or a related subject
Knowledge	<ul style="list-style-type: none"> Programming Statistics Quantitative analytical methods 	<ul style="list-style-type: none"> Fire ecology
Relevant Experience	<ul style="list-style-type: none"> Hands-on experience with quantitative data analysis Hands-on experience working with palaeodata Ability to analyse data and generate high quality figures and tables using appropriate software 	<ul style="list-style-type: none"> Experience with handling large data sets including e.g. remote-sensing data A proven track record of publishing research
Disposition	<ul style="list-style-type: none"> Ability to work as part of a team Flexibility Organised and self-motivated 	
Other	<ul style="list-style-type: none"> Must be willing to take initiative in problem solving 	

Completed by: Sandy P. Harrison

Date: 6 June 2020