

COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE

**POSTDOCTORAL FELLOWSHIP
PALAEOECOLOGY LABORATORY
SCHOOL OF AGRICULTURAL, EARTH AND ENVIRONMENTAL SCIENCES,
UNIVERSITY OF KWAZULU-NATAL, SOUTH AFRICA
CLOSING DATE: 15TH OCTOBER 2024
START DATE: 1 DECEMBER 2024 OR AS SOON AS POSSIBLE THEREAFTER**

REF NO.: SAEES02/2024

We are seeking a numerical scientist with an interest in palaeoecology and long-term ecosystem dynamics for a postdoctoral position based in the University of KwaZulu-Natal (UKZN) Palaeoecology Laboratory on the Pietermaritzburg Campus. This position is part of a larger multi-disciplinary research project funded by the Global Research Council via the Chinese Academy of Sciences and National Research Foundation Sustainable Development Goals (SDGs) Project (Grant Number LT240524220338): *Defining achievable targets for ecosystem restoration and sustainability*.

The postdoctoral project will leverage existing regional palaeoecological datasets from South Africa to evaluate landscape process vulnerability, path-dependency, and resilience. The primary objective will be to model the historical range of variability and trajectories of ecosystem change, including magnitude, rate of change, and tipping points, in key ecological and environmental processes. The outputs of the fellowship will be used to develop a tool-kit with stakeholders for defining realistic restoration targets, explore future scenarios under different combinations of land use and climate change, and define potential management interventions for desired scenarios.

The project aims to inform restoration targets by integrating paleodata, archaeological and historical records to provide evidence-based solutions for achieving SDGs. The project is a collaboration between UKZN, the Chinese Academy of Sciences, the University of York and Netherlands Institute of Ecology.

The researcher will be based at the UKZN Palaeoecology Laboratory under the primary supervision of Prof. Jemma Finch and the co-supervision of a strong international network of researchers including Prof. Ke Zhang (Chinese Academy of Sciences), Prof. Lindsey Gillson (University of York), Prof. Suzanne McGowan (Netherlands Institute of Ecology), and Dr Kelly Kirsten (Coventry University). The research will further contribute to the objectives of the [PAGES Planetary Boundaries Working Group](#).

The candidate must be willing to undertake an extended research stay at the Chinese Academy of Sciences in Nanjing, where they will work closely with numerical scientists focused on the equivalent analysis of the Yangtze River Delta. As part of the successful candidate's professional development, the opportunity to participate in limited teaching and supervision of senior students in the Department will be offered.

Minimum Requirements:

The fellowship is **open to any eligible person, South African or otherwise**, who can carry out its objective. Eligible candidates may not have previously held any academic or professional permanent positions.

- Possession of a PhD degree in quantitative modelling preferably of palaeoecological data, which has been obtained no more than five years ago, is a minimum requirement.
- Experience in quantitative modelling and proficiency in R is essential
- Familiarity in working with palaeoecological datasets is highly advantageous
- The candidate must demonstrate experience in writing journal articles and publications, with a minimum of three peer reviewed publications in the relevant area of expertise within the last three years

Enquiries and details regarding this post may be directed to Prof. J. Finch via email: finchj@ukzn.ac.za

The postdoctoral fellowship is available immediately with a **start date no later than 1 February 2025**. The fellowship is valid for 12 months, and renewable for up to 36 months. The fellowship is worth **ZAR415,000 per annum** with additional allowance for research related travel funded through the UKZN Palaeoecology Laboratory. This award does not include any benefits and is normally exempt from taxation.

The closing date for receipt of applications is 15th October 2024.

Applicants are required to submit the following, as a **single combined PDF document to: Sitholep@ukzn.ac.za before the 15th October 2024. The subject line must clearly indicate the reference no. SAEES02/2024 Postdoctoral Fellowship.** The application document must include:

- (i) a covering letter highlighting their experience in meeting each of the minimum requirements as listed above
- (ii) a detailed CV including list of publications
- (iii) a certified copy of the applicant's doctoral degree certificate or PhD award letter
- (iv) a certified copy of the applicant's ID / permanent residency document / successful international applicants will need to apply for relevant permits
- (v) In addition, please ask 3 referees to email references directly to the Jemma Finch at the email address provided

Late applications will not be considered. Successful individuals will be contacted on or before 31st October 2024. Interviews will be conducted online. The research group reserves the right not to make an appointment to this advert. Should you not receive a reply or update by the 31st October 2024, kindly consider that your application has not been successful.

The University reserves the right not to make an appointment to this advertisement.

Kindly note that the University of KwaZulu-Natal ("the University") is required to process any Personal Information (as defined by the Protection of Personal Act, 2013 "POPIA") submitted by candidates when applying for positions at the University. The University will endeavour to ensure that the appropriate security measures are in place and implemented for both electronic and paper-based formats that are used for processing of the personal information recorded through this recruitment and selection process. We refer you to the University's relevant Section 18 notice at

[http://vacancies.ukzn.ac.za/Libraries/General_Documents/Section_18_Notice -
Employees_and_Potential_Employees.sflb.ashx](http://vacancies.ukzn.ac.za/Libraries/General_Documents/Section_18_Notice_-_Employees_and_Potential_Employees.sflb.ashx)