

POST-DOCTORAL FELLOWSHIP – AFROMONTANE RESEARCH UNIT

To Drive the South African Contribution to an EU Horizon 2020 BiodivERsA Project Mountain Invasion Research Network (MIREN) – Maloti-Drakensberg (2021–2023)

The Afromontane Research Unit (ARU), University of the Free State (UFS), is a Strategic Research Hub in the UFS, and an international player in mountain research. The ARU – as part of the Mountain Invasion Research Network (MIREN) – has successfully secured an EU Horizon 2020 BiodivERsA Project: *Mechanisms underlying the success and impacts on biodiversity and ecosystem functioning of range-expanding species under climate change (“RangeX”)*. (See next page for details).

The ARU is inviting applications from suitable candidates for a three-year POST-DOCTORAL FELLOWSHIP (2021–2023) that will drive the ARU contribution to this project. This will include leading and managing a remote, high-elevation experiment site on the summit of the Maloti-Drakensberg; widespread interaction with local managers and policy-makers on mountainous range-expanding species (native and non-native); and leading/participating in associated workshops and events. The Fellow will also be linked to the rest of the Consortium, with opportunities to travel and to interact with visiting Consortium members. In addition to the above, the Fellow will also have the opportunity to be exposed to – and contribute to – the wide range of mountain-related activities being driven by the ARU as a Continental Leader in African Mountain Research.

FELLOWSHIP DETAILS:

- Three years, commencing 1 April 2021 (latest).
- The Fellowship is valued at R220,000 per annum, with R30,000 running costs per annum (UFS rates) (total R250,000 per annum).
- Costs of the project will be covered by the project budget.

ELIGIBILITY CRITERIA:

- Candidates will need to have completed their doctorates in the past 2 years (i.e. 2019) in order to comply with SARS regulations for Fellowships to remain eligible through to 2023.
- Applications from South African and international candidates are welcomed.
- Candidates may not hold full-time salaried employment during the tenure of the award.
- The following intellectual/experience background is essential:
 - a. Independence.
 - b. Attention to detail.
 - c. Excellent project management skills.
 - d. Excellent scientific writing skills.
 - e. Comfortable and competent with extended stays in a remote region of the Maloti-Drakensberg.
 - f. Driver’s Licence.
 - g. Valid passport.

APPLICATION REQUIREMENTS:

- Detailed Motivation Letter.
- Full Curriculum Vitae (CV) (including a list of academic outputs to date).
- Full transcripts of Academic Record.
- Copy of degree certificates.
- Copy of South African identity document, or Passport (international candidates).
- Signed letters of recommendation from three Academic References.

A Fellowship is currently available for this position, and will be awarded on a competitive basis, taking into account the applicants' academic achievements, research prowess, and mountain competency. Performance will be monitored on an annual basis, as per UFS processes.

Applications should be submitted electronically to vincentralph.clark@gmail.com by 30th January 2021.

Contact Person:

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Five research positions available in international project on plant range expansions in mountains

A global consortium of mountain researchers is offering five research positions to work within the international project "*Mechanisms underlying the success and impacts on biodiversity and ecosystem functioning of range-expanding species under climate change (RangeX)*", funded by the BiodivERsA COFUND Call on "Biodiversity and Climate Change". The project consortium involves partners from Chile, Denmark, France, Germany, Norway, South Africa, Sweden and Switzerland, and will work closely with collaborators from across the global Mountain Invasion Research Network (MIREN; www.mountaininvasions.org/).

Native as well as exotic species are shifting their distributions in response to global warming, many expanding their ranges across elevation gradients. But they are doing so at widely different rates, leading to a reassembly of ecological communities that could have even more profound impacts on the future of biodiversity, ecosystem functioning, and nature's benefits to people. In particular, changes to species interactions in novel communities could mediate effects of climate warming on biodiversity, and on key ecosystem functions like carbon cycling and pollination, which could in turn feedback to climate warming. RangeX seeks to better understand the processes and impacts of plants that are expanding their ranges following climate warming, and to use this knowledge to inform the development of policy regarding range-expanding plant species. The project asks the following overarching questions:

1. What processes explain variation in species' range expansion with climate warming?
2. How do range-expanding species impact biodiversity and key ecosystem functions, and how will these impacts feed back to the changing climate?
3. Can we predict which species are most/least able to expand their ranges with climate warming, and their impact on ecosystem processes?
4. Can better ecological understanding of range expansions be synthesised with stakeholder knowledge to improve policy and management of range expansions and biodiversity?

We are recruiting **one doctoral** and **four postdoctoral candidates** to join the team **from April 2021**. Candidates are expected to interact closely with partners across the project and to engage with relevant stakeholders to co-develop synthesis and policy-relevant information about plant range expansions. We therefore seek candidates with a background in ecology (or related subjects) who are enthusiastic and highly motivated, with excellent communication skills in written and spoken English, strong quantitative skills, and experience or a keen interest in working within an interdisciplinary team. See individual positions for specific skills and competence requirements. Postdoctoral candidates must also have proven proficiency in writing and publishing peer-reviewed scientific papers.

Interested candidates may apply for multiple positions but must do so via the submission systems of the relevant institutions. Please note that submission deadlines for each position

differ slightly, with the earliest being 4th January 2021. Please also check carefully the submission documents required for each position:

- [Post-doc position on the role of soil biota in range shifts of mountain plant species under climate change](#) [Swedish University of Agricultural Sciences (SLU), Sweden. Contact: [Paul Kardol](mailto:paul.kardol@slu.se) (paul.kardol@slu.se)]
- [Doctoral researcher on impacts of range-expanding species on plant biodiversity](#) [Martin Luther University Halle-Wittenberg, Germany. Contact: [Sylvia Haider](mailto:sylvia.haider@botanik.uni-halle.de) (sylvia.haider@botanik.uni-halle.de)]
- [Post-doc position on the processes controlling the establishment of range-expanding species and their impacts on biodiversity and ecosystems](#) [University of Bergen, Norway. Contact: [Vigdis Vandvik](mailto:Vigdis.Vandvik@uib.no) (Vigdis.Vandvik@uib.no)]
- Post-doctoral Research Fellow position on elevational change in woody species and management efficacy, in the Maloti-Drakensberg [Afromontane Research Unit (ARU), University of the Free State, South Africa. Applications to: [Ralph Clark](mailto:ClarkVR@ufs.ac.za) (ClarkVR@ufs.ac.za)]
- [Post-doc position on the role of range-expanding plant species in plant-pollinator interactions tracked by using novel computer vision and deep learning tools](#) [Aarhus University (AU), Denmark. Contact: [Toke Høye](mailto:tth@bios.au.dk) (tth@bios.au.dk)]

Further information: please contact the relevant partners using the above links for information about a specific position; for general questions related to RangeX, please visit our website (<https://www.mountaininvasions.org/rangex>) or contact the project coordinator [Jake Alexander](mailto:jake.alexander@usys.ethz.ch) (jake.alexander@usys.ethz.ch).

