



UNIVERSITY OF
KWAZULU-NATAL
INYUVESI
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National
Research
Foundation

Post-doctoral position at UKZN (2020-2021)

Global change impacts on biodiversity and ecosystem function in estuaries

A post-doc opportunity is available within a larger project titled *A framework to assess global change in estuaries: past, present and future* funded under the Earth Systems Science Research Programme, through the DST/NRF Global Change Science theme. This is a collaboration between the University of KwaZulu-Natal (UKZN), University of Zululand, Oceanographic Research Institute (ORI), and CSIR (Durban and Stellenbosch), South Africa. The aims of the larger project are the following:

- Develop methods to better understand and predict estuarine ecosystem health and resilience under future global change scenarios.
- Advance knowledge on the interaction between biodiversity and ecosystem resilience.
- Understand how anthropogenic impacts influence the estuarine ecosystem relative to natural variability.

The candidate will undertake research pertinent to the biodiversity-ecosystem link and investigate drivers of ecosystem resilience and function under global change scenarios that are universal in nature, and relevant to the region. The project has a strong emphasis on data science and systems analysis. Data are available from past projects and additional data are currently generated in several MSc and PhD projects. Through both static and time-dynamic ecosystem models we seek to connect hierarchical scales of species, communities, ecosystems and landscape levels, and to establish a framework depicting how ecosystems of 'Future Estuaries' may function.

Requirements:

- PhD degree in the Biological or Environmental Sciences, or related. If you have a degree in Computer Science, or related, and are interested in environmental themes, you are welcome to apply.
- You have working experience in R or Python, and have some experience in systems analysis.
- You are self-motivated, interested in data science and in preparing your research for publication.

The successful candidate will join an existing research group working on hydrodynamics, water quality, invertebrate and vertebrate ecology, and ecosystem modelling. The post-doc stipend has a value of ZAR 220,000 per annum and is renewable after 1 year for a second year. You will be registered at UKZN, and the starting date is 1 February 2020.

To apply, send (1) a motivation, (2) a CV including publications, (3) a full academic record, and (4) contact details of three referees, in a single pdf to Prof. Ursula Scharler (scharler@ukzn.ac.za).

Closing date for application: Thursday, 31 October 2019