

Aquatic Systems Research Group

Department of Ecology and Resource Management, University of Venda

Post graduate opportunity in Trophic Ecology – 2020/2021

Aquatic Systems Research Group: Trophic functioning of aquatic food webs in the grassland river-floodplain. The main aim/objective of this project is to quantify the extent to which terrestrial resources maintain floodplain food webs and how this is influenced by wooded, grassland and/or human activities. The project envisages a study of biodiversity and ecosystem dynamics of the major South African Wetland system, favouring a multidisciplinary approach gathering past and new relevant biological, ecological and biogeochemical data. One of the key themes is to unravel the contribution of various terrestrial resources in sustaining productivity in the major river network. There is NRF funding opportunities available for self-motivated postgraduate students (i.e. MSc (2)) to work as part of a dynamic postgraduate research team.

Requirements

Applicants are invited from students with a:

BSc Hons in Zoology/Ecology/Biological Sciences/Botany/Entomology or related subjects with an average of >60% and should meet all other University of Venda admission requirements (**MSc: 2 students**).

Students will be based in the Department of Ecology and Resource Management at the University of Venda in Thohoyandou, South Africa. We are looking for dedicated students who are willing to do field and laboratory work. Potential students should be team players, willing to participate in extended fieldwork activities and comfortable in a multi-cultural working environments. The candidates will be expected to participate in weekly scientific discussions and monthly presentations to the Research Group. The research project forms part of research work in aquatic ecosystems funded by the DST-NRF and University of Venda Grants (Co-Project Leaders: Dr Tatenda Dalu, Dr Ryan J Wasserman). Successful applicants will acquire skills in an exciting and widely applicable interdisciplinary field involving trophic marker analysis (i.e. stable isotope signatures) to study energy transfer between terrestrial and aquatic ecosystems, and carbon and carbonate cycling with emphasis on the exchange of CO₂, CH₄ and NO_x with the atmosphere and on the coupling between inorganic carbon dynamics and biological processes. Projects will be tailored to individual research interests (eg. insects, vertebrates, plankton, etc.).

Duration and funding

The MSc will run from February 2020 to November 2021. NRF Thuthuka Student Linked Bursaries are available to suitable qualified students. Running costs for the project will be covered by the Aquatic Systems Research Group.

Closing date: 5 October 2019

Please email your CV, academic record, and a letter of motivation that includes your research interests to the two e-mails: Dr Tatenda Dalu (tatenda.dalu@univen.ac.za) and Dr Ryan J Wasserman (wassermanr@biust.ac.bw)



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