



UFS Geography lecturer joins research expedition to Marion Island

Bloemfontein, October 2022. – Marike Stander, a lecturer in the Department of Geography at the University of the Free State (UFS), was granted the opportunity to assist a research group led by Prof Werner Nel (University of Fort Hare) and Prof David Hedding (Unisa) to Marion Island – based on her knowledge and experience in tracer sampling.

According to a media release by UFS, the Prince Edward Islands are the most southerly part of South Africa's official territory and consist of Marion Island and Prince Edward Island. On Marion Island, about 270 km² in size and situated in the sub-Antarctic Indian Ocean, 1 920 km from the South African shore, activities are restricted to research and conservation management.

Back home, Stander is working to complete her doctoral research, investigating the often-overlooked major issue of soil erosion, which impacts the storage of carbon and nutrients, and therefore the production of food, but can also act as a pollutant in water sources.

Stander was approached by the Sub-Antarctic Landscape-Climate Interactions (SANAP-LCI) Research Group, a

project funded by the South African National Antarctic Programme-NRF. One of their research objectives is to explore the viability of using geochemical tracers in the substrate on Marion Island, the focus of Stander's doctoral research.

With the support of the UFS Faculty of Natural and Agricultural Sciences and the Department of Geography, she was released to accompany the research group for the first time in her life on their annual relief expedition with the *SA Agulhas II* from Cape Town to Marion Island, where she assisted with fieldwork and data collection. During this three-week field campaign, Stander collected sediment samples for the tracer project, as well as rock and peat samples.

Stander says in a time when the importance of interdisciplinary and multidisciplinary work is being emphasised, it was invaluable to meet and learn from various distinguished scientists. "It changes your perspective and allows your mind to not only think outside the box, but also to think about all the interconnected boxes and how they affect each other."

Very few people get the opportunity to visit Marion Island. Thus, just the chance to visit and experience life on the island is described by many as one of their most memorable events. Always fascinated by volcanic features, Stander was completely captivated by this relatively young volcanic island. "There are so many interesting features, such as the pahoehoe and a'a lava flows, as well as the numerous scoria cones," describes Stander, who cannot believe that she managed to cover the vast distances in gumboots, the only footwear that are effective to cross anything – from razor-sharp rocks to deep waterlogged mires.

She was also overwhelmed by the flora and fauna on the island. "It is so very different from what we are used to and from what I've experienced before. Seeing these animals in a relatively untouched remote location really captivated me," she says.

Watch a video here: <https://youtu.be/BhhyzkgwFnU>



https://en.wikipedia.org/wiki/Pince_Edward_Islands#/media/File:PrEdwIsl_Map.png

UMarike Stander, ongumfundisi kwezomhlaba e nyuvesi yase Free State (UFS), uthole ithuba lokusiza iqembu labacwaningi abaholwa u Prof Werner Nel (Nyuvesi yase Fort Hare) no Prof David Hedding (Unisa) ukuya endaweni ebandayo futhi ekude ebizwa ngokuthi I Marion Island. Nangu echaza ngakubonile.

Translated by Zamantimande Kunene