

## Meet molecular systematics laboratory manager Tlou Manyelo



During her time at the Science Centre, Tlou taught school learners about the wonders of science.

Tlou Manyelo is the laboratory manager at the Leslie Hill Molecular Systematics Laboratory at the South African National Biodiversity Institute (SANBI), in Cape Town.

Her work as laboratory manager is to oversee the processing and curation of biological samples of various SANBI projects. She is responsible for making sure that all the data accompanying the samples are archived and made available to researchers who are interested. Tlou is involved in various interesting projects. For example, her current project is not for the faint-hearted and looks at the evolutionary relationships between viper species from all over Africa.

Tlou started her career in science by completing an undergraduate and an honours degree in zoology, at the University of Limpopo. Her first position was as senior laboratory assistant at the University of Limpopo, in their Botany Department. However, after a few years in the laboratory, Tlou decided to share her passion for science outside of academia and joined the university's Science Centre. In 2010, Tlou joined the DST-NRF Centre of Excellence for Invasion Biology (C•I•B) as technical officer,



Tlou Manyelo. Image: Tlou Manyelo

which took her back to the field and laboratory.

Tlou took her career further by recently completing a masters degree in botany, which focused on the evolutionary relationships between different species of snoutbean (genus *Rhynchosia*), in South Africa. Tlou believes that there is no sector of research should be taken as a single entity. 'Research may not have a direct influence immediately, but every bit of information generated could help us to understand and ultimately to conserve our environment. For example, genetic information could help us identify threatened species.'

## Monitoring invasive species from icy islands to arid lands

Tshililo Ramswiela is a research technician with the South African Environmental Observation Network (SAEON) and is based at SAEON's Arid Lands node in Kimberley. *QUEST* asked him a few questions about his career.

### What did you study?

I completed a Bachelor of Environmental Management at the University of Venda, and then decided to enrol for a master's degree at the DST-NRF Centre of Excellence for Invasion Biology (C•I•B), Stellenbosch University. At the C•I•B, I was introduced to the field of invasion science. My study looked at the spread of alien and invasive plants across Marion Island, which gave me the opportunity of a life-time – to visit the sub-Antarctic region and Marion Island.

### What is important about your work and the work of SAEON?

For us to make decisions about our environment and its management, we need to have reliable scientific data. Threats caused by invasive species are ever increasing and yet we do not know much about how invaders affect native species and how they will be affected by climate change. In my work, we do long-term environmental monitoring, which means we collect data on environmental conditions, for example weather data, veld

conditions and vegetation surveys. My work includes recording observations in the field, collection of biological material, processing and identification of samples, and data analysis.

### What do you enjoy most about your work as a research technician for SAEON?

My work brings me to places where very few people have the privilege to set foot. Exploring the vast Northern Cape and Karoo region is undoubtedly an experience to cherish, especially Namaqualand during the flowering season.

### What have been some of the highlights of your studies and your time at SAEON?

Going to the sub-Antarctic region and Marion Island was certainly the highlight of my university career. So far, in my career with SAEON, the highlight was conducting research in our biggest protected area, the Kruger National Park.

### Not many youngsters look at science as a career path, what led you down this path?

Science is very broad and it has many fields to explore. I started out with a background in environmental management and then specialised for two years in invasion science. In my work as a research technician I deal with invasive species



Tshililo Ramswiela during one of his research visits to Marion Island. Image: Tshililo Ramswiela

on a daily basis. I see science as an adventure, an opportunity to discover new things while having fun at the same time.

### What do you do when you kick off your shoes to relax?

I enjoy watching a good documentary, reading any material, and I have a passion for sports.