

Chance enquiry opens doors to field trip of a lifetime

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DREAMS do come true. Just ask Salome Malgas, who was unemployed six months ago and is now the herbarium technician at the University of Johannesburg – and about to embark on the field trip of a lifetime.

Malgas will join 17 researchers and postgraduate students next week on a major expedition traversing three of South Africa's biodiversity hot spots to document a variety of natural species as part of the 2010 Toyota Enviro Outreach.

Six months ago, her mother, a cleaner at the university, asked Professor Michelle van

der Bank of the Department of Botany and Plant Biotechnology whether there was a job for her daughter.

There was, in the herbarium – a job Malgas has taken to like a rose to water.

"She is like an artist," says Van der Bank, watching Malgas meticulously catalogue flower after flower.

Malgas, of Protea North in Soweto, says: "I arrived here not knowing a thing about plants.

"I enjoy this very much. I wanted to study drama, but now I feel I should have studied this a long time ago. I feel like I'm in a dream."

Van der Bank says the

expedition team will collect specimens of plants, fish, birds, molluscs and insects from the Succulent Karoo, the Cape Floristic Region, and the Ma-

putaland-Pondoland-Albany zone, to produce a record of DNA samples.

The project, which aims to raise awareness of safeguarding natural wealth and reducing biodiversity loss, is part of the International Barcode of Life project to assemble a DNA barcode library of all life on Earth. The project is gathering DNA barcode records for 5 million specimens representing 500 000 species.

For Van der Bank and her colleague Dr Olivier Maurin,

the aim is for a complete database of DNA barcodes for all South Africa's plant species.

Last year, the Saturday Star reported on how the two academics were leading Africa's Tree Barcode of Life Initiative, collecting samples from most of the trees in southern Africa.

Out in the field, on foot, they hope to collect at least 100 plant species a day, mainly endemic and indigenous species, during the 17-day expedition.

"The insect guys can just put a light out at night and catch thousands of insects. But it's going to take longer for us in the field," she explains.

That's not a problem, though. "All of these bulbs are

coming up in the Cape. The fields are just amazing. We hope to identify new species. We get excited about the tiniest flowers. Botanists are a bit nutty."

The database will equip scientists with the resources to be able to identify plants by matching different DNA barcodes.

South Africa has undertaken to barcode 20 000 specimens by April, and a further 40 000 by April 2013.

The specific DNA information can be applied to help curb the illegal trade of endangered species, identify invasive and poisonous organisms and control pests. But the true focus

remains the assessment of species diversity in the world's biodiversity hot spots.

Van der Bank and her team have already submitted 4 800 specimens and 3 100 species to the global data bank. "South Africa is doing very well. We've submitted huge amounts of data. We've been recognised as a centre for DNA barcoding."

Malgas can't wait to embark on the expedition. "I want to learn from these guys. I get to meet great people. Now I can look at any plant in my garden and try to find out what species it is. We should all get to know more about the trees and plants in our gardens because they're so interesting and beautiful."



BLOSSOMED: Salome Malgas has been the herbarium technician at University of Johannesburg for six months. PICTURE: CARA VIERECKL