



BACK TO ROOTS: Professor Michelle van der Bank and Dr Olivier Maurin check the voucher number of a specimen in the lab.

PICTURE: CARA VIERECKL

Karoo DNA expedition exceeds expectations

SHEREE BEGA

THEY had hoped to collect about 1 500 species on their groundbreaking DNA expedition to South Africa's biodiversity hotspots - but they came home with thousands more.

And the efforts of the team of local and Canadian scientists and researchers who ventured to the Succulent Karoo and the Maputulan-Pondoland-Albany floristic region in recent weeks as part of the 2010 Toyota Enviro Outreach may have made the single biggest contribution yet to an international DNA project.

The expedition, led by the University of Johannesburg, amassed over 10 000 individual plant, animal and insect species in just over two weeks. More than 3 500 species will be offered to the International Barcode of Life project, which originated in Canada and aims to assemble a DNA barcode library for all life on Earth.

Dr Olivier Maurin, of the department of botany and plant biotechnology, said this week that the plant team had gathered about 800 specimens corresponding to around 700 species.

"The plant team didn't discover

any new species, although while processing samples we might be surprised by the discovery of new species. However, we did encounter one tiny daisy at Noup which seemed to be restricted to this area and was only collected twice previously by botanists. The plant is considered by some researchers as a possible new species and by others as a subspecies. In such cases like this we hope DNA barcoding will assess its identity."

His colleague, Professor Michelle van der Bank, has received widespread acclaim for her discovery of the matK-gene, used as identifier for all plant species DNA.

South Africa has undertaken to barcode 20 000 specimens by April 2011 and a further 40 000 by April 2013. It's an ambitious target, but Maurin believes it's within reach.

"Although the 20 000 is a very high target in a year, the combination of all the collections made during this trip (plants, fish and insects) bring the number of samples being processed and sent to Canada up to 5 000.

The rest, he believes, will be achieved through collaborations with other universities and institutions.