



Joburg scientists to capture tree DNA

University of Johannesburg scientists have started creating a database of DNA information from the world's tree species, it was announced on Tuesday.

"Known as TreeBOL, or tree barcode of life, the project will keep track of where tree species are located and whether they are at risk for extinction," the university said in a statement.

The University is one of Africa's representatives on the project, which is also taking place in eight other places throughout the world.

A section of DNA would be scanned to create the database, said scientist Michelle van der Bank.

"The results are crucial for conservation and protecting the environment as population and development increases," she said.

The project would also bring together scientists from all over Africa, and would play a major role in building scientific capacity in molecular techniques at the university.

The scientists would be assisted in the collection of samples of the estimated 1 700 trees native to southern Africa by the SA National Biodiversity Institute.

"Africa's forests are being inhabited by locals where it is customary law to use trees for firewood, fell trees for construction, and the use of forest products for food and medicine," Van der Bank said.

"As a result many tree species are being listed as critically threatened or endangered.

"Many tree species may become extinct even before they are discovered.

"If no drastic change in human behaviour occurs, and given the predicted climate changes, we can expect important modifications to the biosphere within the next few decades, which may cause the extinction of a third of species on earth by 2050," she said.

While more than 300 species of timber trees were protected or had been considered for protection by the Convention on Trade in Endangered Species, it was difficult for border officials to monitor the illegal trafficking of products derived from them.

Van der Bank said they were difficult or impossible to identify in the absence of flowers or fruits, and even more so when they had been cut, stripped of their leaves and processed.

The DNA barcoding technique was relatively simple to apply and could distinguish between even closely related species. - Sapa

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