

Toyota Enviro Outreach 2013 Press Release

The Toyota Enviro Outreach for 2013 will provide a unique opportunity for scientists to study a remote and poorly explored part of the country, namely the arid, predominantly summer-rainfall regions of the Northern Cape. This area is composed largely of Nama-Karoo, but also includes arid bioregions of the Savannah and Succulent Karoo biomes, as well as the Gariiep Desert along the Orange River. The region harbours many rare and interesting plant species, etching out a living in some of South Africa's most arid environments, with many of these only known from few and very old herbarium records. The opportunity to do surveys of their populations and observe their habitats and the threats to them will enable improved conservation assessments and accurate locality information, vital components to ensuring the conservation of rare and threatened species when these data are applied to the development of conservation plans and land use decision support systems.

South Africa is the third most mega-diverse country in the world, with almost 10% of the world's plant species. Without fundamental knowledge of this diversity the country will be limited in its ability to use this national asset to solve environmental and human welfare challenges. Furthermore, with the current unprecedented rate of extinction no other generation will have access to the number and diversity of species that we have now (many of which still remain unknown to science). The resources our biodiversity holds, especially species that are poorly known, are therefore extremely important and their preservation for future generations pivotal. Efforts such as the 2013 Toyota Enviro Outreach enable scientists to make strides in the exploration of these hidden treasures, ensuring their preservation.

In order for South Africa to meet the targets of the Global Strategy for Plant Conservation (GSPC), the South African National Biodiversity Institute (SANBI) has committed to produce a national electronic flora documenting all the species in the country by 2020. However, due to the immense scale of the South African flora, the compilation of smaller,

more manageable regional Floras are necessary as a first step towards this goal. Several such Floras for South Africa have been completed with the result that the Northern Cape Nama-Karoo, along with the adjacent summer rainfall areas, is the last remaining region within the country still requiring a floristic treatment. This will also provide valuable information to draw up conservation strategies particularly in light of various potential threats to the region, such as proposed hydraulic fracturing (fracking) and various other mining activities in some parts of the Karoo.

The Toyota Enviro Outreach will start on April 2nd at the Klipbokkop Mountain Reserve and will run until April 14th, during which time scientists and students from the University of Johannesburg, the South African National Biodiversity Institute, University of Pretoria, and University of Cape Town will visit several floristically interesting sites in the extremely arid Gariiep region (Gariiep Desert, Bushmanland Inselbergs, quartz patches) and the Upper Nama-Karoo region of the Northern Cape Province, with the goal to collect material for herbarium specimens and DNA barcoding, as well as information about species distributions, population surveys of threatened species, habitat and threat assessment data while also recording information about plant utilisation.

ADDITIONAL NOTES TO EDITORS:

The International Barcode of Life (iBOL) project is a Canadian-led research alliance, which spans 26 countries and brings together hundreds of leading scientists in the task of collecting specimens, obtaining their DNA barcode records and building an informatics platform to store and share the information for use in species identification and discovery. By 2015, iBOL participants will gather DNA barcode records for five million specimens representing 500,000 species, delivering a highly effective identification system for species commonly encountered by humanity and laying the foundation for subsequent progress towards a barcode reference library for all life.

African Centre for DNA Barcoding - <http://www.acdb.co.za>

iBol project - <http://ibol.org>

Toyota Enviro Outreach – <http://www.toyotaoutreach.com>

ispot southern Africa <http://www.ispot.org.za/>

Global Strategy for Plant Conservation <http://www.plants2020.net/>

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