

An introduction to SKEP – the Succulent Karoo Ecosystem Plan

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The Succulent Karoo biome is one of 25 internationally recognised biodiversity hotspots. The biome covers approximately 112 000 km², extending through the north-western areas of South Africa and into southern Namibia. It is predominantly a winter rainfall desert with most of the area receiving less than 400mm of rain annually. The Succulent Karoo is an extraordinary exception to the low diversity that generally characterises arid areas. It contains 4 849 vascular plant species of which 1 940 (40%) are endemic to the biome. The fantastic concentration of dwarf leaf-succulents is a unique feature of the Succulent Karoo and contributes to the region's distinction of maintaining the richest succulent flora in the world. The Succulent Karoo has been identified as an IUCN Centre of Plant Endemism and is the only arid ecosystem to be recognised as a global biodiversity hotspot.

Considering the international significance of the Succulent Karoo, it is alarming that at present the conservation status of the hotspot is extremely poor. Overgrazing on private and communal lands has devastated about two-thirds of the 100 000km² of the region that is currently being grazed. Invasive alien species are also posing a threat to many areas in the Succulent Karoo (the Sperrgebiet supports more alien mammals than any other area in Namibia). Mining too has had a significant impact in the region and is likely to expand in the future. Only 30 000 km² of the Succulent Karoo, or about 27%, exists in a relatively pristine state. Only 2.1% of the biome is conserved in statutory reserves and these reserves protect only 90 (10%) of the hotspot's 900 Red Data Book plant species.

Despite a new wave of support to further protect Succulent Karoo biodiversity (several new protected areas are being proposed in and around the Knersvlakte, Namaqualand National Park, the Richtersveld/Ais-Ais Transfrontier Conservation Area and the Sperrgebiet), there is no plan or conservation targets upon which to measure the contribution of these new protected areas or to prioritise efforts among them. Several parts of the Succulent Karoo have been the subject of data collection and analysis by various organisations. However, we still lack a hotspot-wide analysis collating the information available and setting priorities at the biome scale.

This is what SKEP – the Succulent Karoo Ecosystem Plan – aims to address. SKEP will gather information on biodiversity and on land use pressures in the Succulent Karoo, and then use systematic conservation planning methods supported by GIS technology to identify priorities for conservation action at the biome scale.

The SKEP process is facilitated by Conservation International, with support from the Critical Ecosystem Partnership Fund. Throughout the process, local organisations are undertaking the bulk of the work, to ensure that capacity is built within South Africa and Namibia to take forward conservation planning in the Succulent Karoo and elsewhere.

SKEP has four components, dealing with:

- biodiversity;
- socio-political issues;
- resource economics;
- institutional issues.

The Botanical Society, in partnership with the National Botanical Institute (NBI), has been contracted by Conservation International to undertake the biodiversity component of SKEP. The co-ordinator of the biodiversity component, based at the Botanical Society's Cape Conservation Unit, is working closely with the co-ordinators of the other components of SKEP, to ensure that the impact of, for example, socio-economic pressures on biodiversity in the Succulent Karoo is properly understood.

Through integrating the four components, SKEP seeks to develop an overarching plan for biodiversity conservation in the Succulent Karoo biome that will:

- provide a hierarchy of priority actions to guide conservation efforts and donor investment in the biome;
- build human resource capacity to implement the plan by including training and mentorship activities as part of the planning process;
- generate the institutional and government support required to ensure its effective implementation.

The Botanical Society will also be working closely with Namibian organisations in the SKEP process. Although the Succulent Karoo makes up only a small part of Namibia's vast landscape, it is seen as a national priority for biodiversity conservation in Namibia.

SKEP is being tackled in an ambitious time frame. The broad priority setting process will be complete by the end of August 2002. Watch *Veld & Flora* for updates in June and September.

If you would like to know more, please contact Amanda Driver, the co-ordinator of the Biodiversity Component of SKEP (driver@nbict.nbi.ac.za or 021-799 8700).