

BTA's Director Travels to South Africa

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In the last issue of *Desert Plants*, I referred to my pending trip to South Africa and Namibia and promised a few details for this issue. My two week trip in March included driving over 1,200 miles, 1,800 pictures, five national botanic gardens, several national parks, museums, private gardens and a Desert Research Center, with a 19.5 pound backpack. There is too much to cover in one article, so I will stick to my promise of a few details.

Before I begin, I would like to explain why a trip to Africa was so important for the Arboretum. The purpose of the Boyce Thompson Arboretum is to instill in people an appreciation of plants through the fostering of educational, recreational, research and conservation opportunities associated with the world's arid land plants. Over the last two years, we have made great strides in our North and South American Exhibits as well as in our Australian area. To fully represent the world's arid plants, it is time to tackle the two largest areas of arid lands as shown in the chart on page 22.

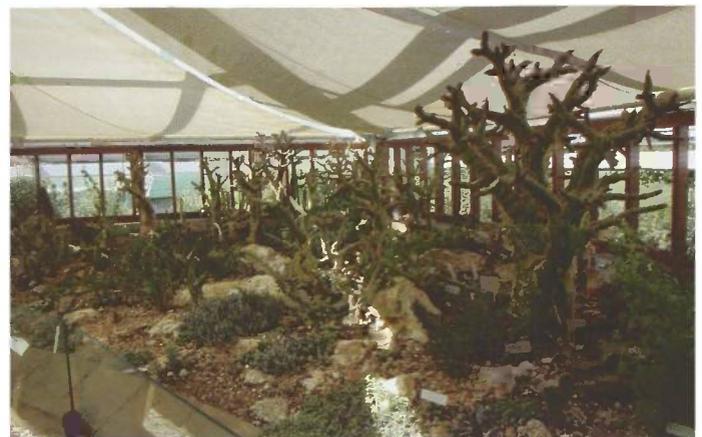
Even adopting the newer concept of drylands and using the terms hyper arid, arid, semi-arid and dry sub-humid as used in the *World Atlas of Desertification* (UNEP, 1992), Africa and Asia clearly remain at the top of the list in total and in almost every category. Dr. Feldman, former Director of the Arboretum, had already laid important groundwork in the 1990s, both in Africa and Asia. Based on his work, the Arboretum has a strong basis to expand our Deserts of Southern Africa and Asian areas. I was lucky to retrace some of his steps in Africa and renew some friendships as well as make new ones in the process.



Karoo Desert National Botanical Garden Greenhouses, Worcester, South Africa (M. Siegwarth)

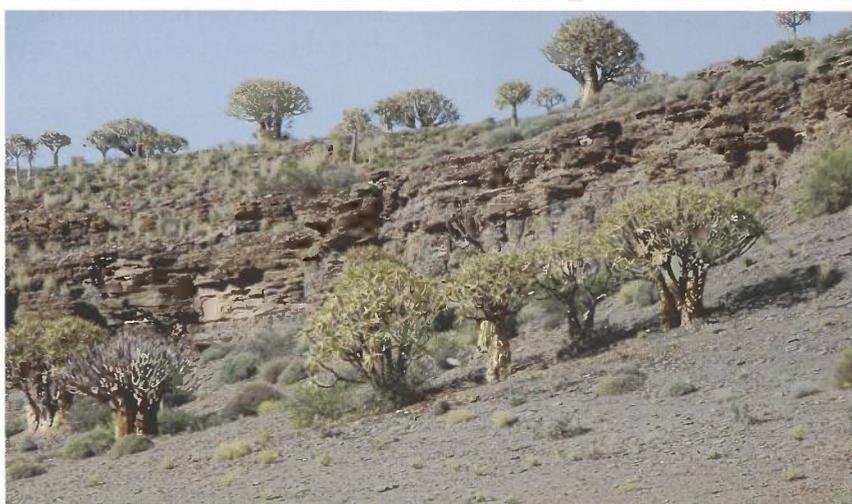
My first and most important stop was the Karoo National Botanical Garden in Worcester, South Africa to meet their Curator, Ian Oliver. Readers of *Desert Plants* might be familiar with him through his June 2003 article on the Karoo. Mr. Oliver, curator since 1991, has achieved international stature for the garden and its' succulent collection. Boyce Thompson Arboretum had extended an offer to Mr. Oliver to be the Curator of our Deserts of Southern Africa area. My trip was to solidify this offer and get a better understanding of the flora and its interpretation in order to move forward with our plans at Boyce Thompson Arboretum. I am pleased to announce that the trip was successful and Mr. Oliver should be on staff at Boyce Thompson Arboretum in January, 2011.

My next stop, the Kirstenbosch Botanical Garden in Cape Town, is arguably the flagship of the South African gardens. The Kirstenbosch is the one garden that displays and interprets the flora from across the varied terrain of South Africa. Their conservatory houses arid land plants from the Namib, Kalahari and Karoo Deserts and showcases not only the difficulty but also the marvelous diversity of the plants from this region of the world.



Kirstenbosch National Botanical Garden, Cape Town, South Africa (M. Siegwarth)

Approximately four hours away, is the newest National Botanical Garden, the Hantam. I entered an area of South Africa, that if not for the Quiver Trees and Euphorbia, I would have sworn I was back in Arizona. The Garden is world renowned for its incredible diversity of bulbous plants. Some 40% of the flora comprises bulbs that create spectacular displays in autumn and spring each year.



Terrain and Quiver tree (*Aloe dichotoma*) forest outside of Nieuwoudtville, South Africa (M. Siegwarth)

To date, 1,350 plant species have been recorded on the Bokkeveld Plateau, where the garden is located, including 80 range-restricted or endemic species. Almost a third of the species endemic to the Bokkeveld Plateau are threatened with extinction. There is a great opportunity to partner with the Hantam and help protect these beautiful and endangered plants.

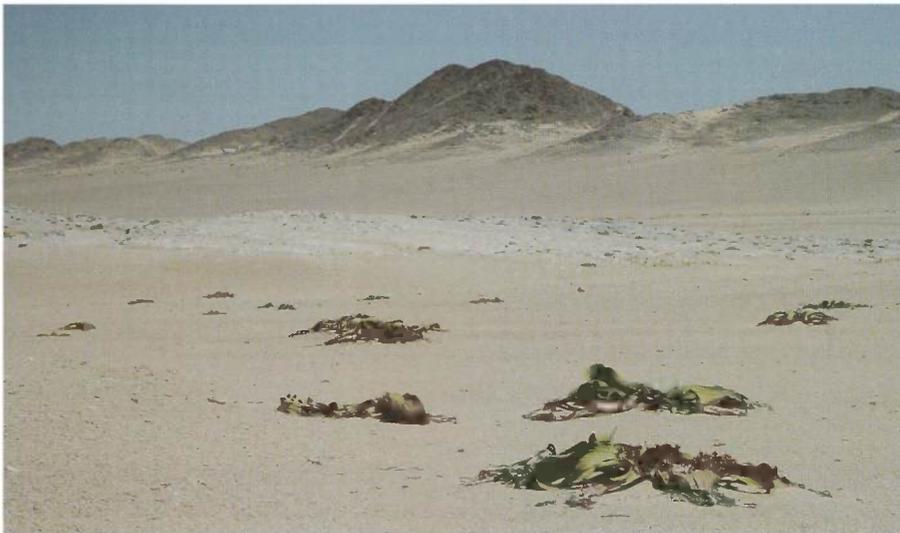
Even though the Arboretum focuses on arid land plants, I took some time to marvel at the diversity of the Cape Floral Kingdom. With over 8,700 species, the Cape Floral Kingdom compares with some of the richest floras in the world. In addition to the Kirstenbosch, the Harold Porter National Botanical Garden and the Cape of Good Hope are both great places to view this rare and endangered flora and landscape.

My visit to Namibia was to experience the other great desert of southern Africa, the Namib. Much like the saguaro defines the Sonoran desert, the *Welwitschia mirabilis* defines the Namib. In traveling the landscape, it was clear to me that a lot of work would be required to successfully exhibit the flora of the Namib at Boyce Thompson Arboretum. The Curator of the National Botanic Garden of Namibia, Silke Rugheimer is eager to work with Boyce Thompson and we hope to have her visit and lecture at Boyce Thompson in 2011. Also, the University of Arizona study abroad

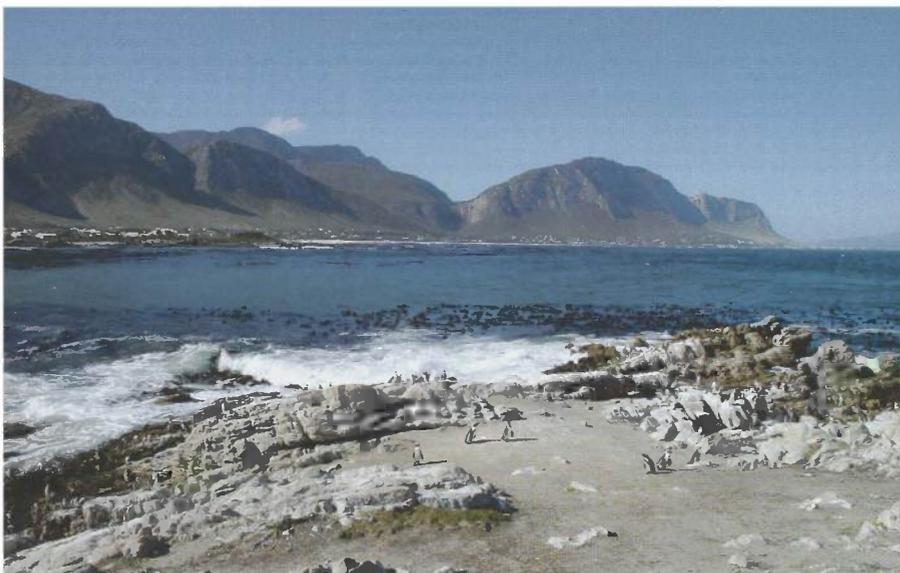
program just finished their third trip to Namibia. Realizing that students were traveling to Namibia on an annual basis, Boyce Thompson Arboretum offered scholarships to students who would focus on botanical research on our behalf. The results of this partnership are in the accompanying article, Floral Survey of Central and Northern Namibia.



A bulb photographed at the Hantam National Botanical Garden, Nieuwoudtville, South Africa (M. Siegwarth).



Welwitschia mirabilis drying out in in Namib-Nuakluft National Park, outside of Swakopmund, Namibia (M. Siegwarth).



Penguin colony, Betty's Bay, South Africa (M. Siegwarth)



Harold Porter National Botanical Garden, Betty's Bay, South Africa (M. Siegwarth).

Continent	Extremely Arid	Arid	Semi-Arid	Total
Africa	4,558	7,034	6,081	17,943
Asia	1,051	7,909	7,516	16,476
Australia	0	3,864	2,517	6,381
North America	31	1,279	2,657	3,967
South America	171	1,217	1,626	3,014
Europe	0	171	844	1,015

Arid lands in thousands of square kilometers, Gobabeb Desert Research Center, Namibia.

Continent	Hyper Arid	Arid	Semi-Arid	Dry Sub-Humid	Total
Africa	6,720	5,035	5,138	2,687	19,580
Asia	2,773	6,257	6,934	352	16,316
North America	31	815	4,194	2,315	7,355
Australia	0	3,030	3,090	513	6,633
South America	257	445	2,645	2,070	5,417
Europe	0	110	1,052	1,835	2,997

Chart is in thousands of square kilometers.
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Cape Peninsula National Park, near Cape Town, South Africa (M. Siegarth)

In closing, it was an extremely productive trip and we have laid a strong foundation to advance our Deserts of Southern Africa exhibit at the Arboretum. Therefore, if you are not fortunate enough to be able to visit Africa, you can at least get a taste of what you are missing in Superior, Arizona in the not too distant future.

Literature Cited

- Gobabeb Desert Research Center, Namibia.
Le Houerou, H.N. 1996. Climate change, drought and desertification. *Journal of Arid Environments* 34: 133-185.
World Atlas of Desertification UNEP. 1992.