

Invasive alien species threaten grasslands

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South Africa is one of the world's seventeen megadiverse countries, mainly due to its plant diversity and endemism. Its grasslands biome harbours an exceptionally rich indigenous floristic diversity, second only to the Cape Floristic Region. This is under threat from invasive alien plant species.

According to the IUCN Red List of South African Plants, 1168 indigenous species mainly in the fynbos and grasslands biomes are directly threatened by alien invasive plants. This makes alien invasive species one of the most severe impacts on plant diversity together with habitat loss and habitat destruction

One plant species, *Aspalathus cordicarpa*, is already extinct due to alien plant invasions while six others are highly likely to be extinct due to alien invasions.

Chromolaena odorata is one of the most important invader species in the grasslands, savannah and forest biomes. Where it is found it has also impacted on spider populations, which are an important ecological indicator for change. In all cases it has led to a reduction in assemblage patterns, diversity and species richness of spiders.

Alien invasives are often associated with forestry plantations and grassland habitats fragmented by forestry plantations are prone to invasion by alien plants, causing further habitat degradation in fragile remnants of natural vegetation. *Chlorophytum radula* (Critically Endangered) in a heavily afforested area in Limpopo province was thought extinct for over a century until a small population of thirty plants was found between a road and a plantation in 1999, but is in imminent danger of extinction.

'The Eastern Free State has been invaded by several alien plant species belonging to the rose family (Rosaceae),' writes Lesley Henderson of the South African National Biodiversity Institute (SANBI). 'The most widespread and abundant species are *Rosa rubiginosa* (eglantine or sweet briar), *Pyracantha angustifolia* (orange firethorn), *P. crenulata* (Himalayan firethorn) and *Cotoneaster pannosus* (silver-leaf cotoneaster). *Rubus cuneifolius* and *R. fruticosus* (brambles) are more restricted to the north-eastern, moister parts. All these species are invading grassland, rocky ridges, streambanks, edges of dongas and fence lines. They are dispersed by birds which are attracted to the bright red or orange, fleshy fruits. The fruits are probably also eaten by rodents, baboons, goats and horses. *Prunus persica* (peach) is very widespread but mainly confined to roadsides, railwaylines and sites of human habitation where the large seeds have been discarded by humans.

'The seeds of many plants in the rose family require cold winters in order to germinate, which explains why so many of them have become problematic in the eastern Free State. An example of a non-invasive representative of the Rosaceae, which is also flourishing in this climate, is the cherry that has made the town of Ficksburg famous.'

It is estimated that the area infested by invasive alien trees and shrubs will double within 15 years if left alone. Invasive alien species already use up 7% of SA's water. Some invasive alien plants like the pompom weed degrade and replace natural grasslands. Invasives are a major human problem and also threaten biological diversity. They also have a detrimental effect on the productive use of land.

The 22nd of May 2009 is International Biodiversity Day. The theme for this campaign is "biodiversity and invasive alien species".

Alien species are space invaders – protect grasslands. For more on the campaign, invasive alien species and resources, please visit: <http://www.grasslands.org.za/biodiversityday/>

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