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Ceratotheca sp. aff. reniformis | Plantz Africa

Introduction

One of several previously undocumented species in the dry savanna of Limpopo Province, the Limpopo foxglove yearns for the bit of limelight it surely deserves. Perhaps the sight of this plant will encourage someone to study the plant and its potential uses in more detail, so that we can formally add it to the southern African horticultural treasure trove.



Description

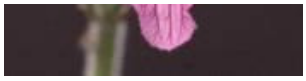
Description

The Limpopo foxglove is an annual of 0.6 to 1 m tall. Unlike its close relative, *Ceratotheca triloba*, the leaves are round or kidney-shaped and not lobed. The plant is covered with minute glandular hairs that emit an unpleasant odour when touched. The leaves gradually diminish in size up the stem, giving way to small bracts (leaf-like structures associated with the flowering stem) higher up with the flowers.



The mauve or pink flowers are about 25 mm long and appear in pairs along the flowering stem in late summer (January) and autumn (March to May). This is rapidly followed by the two-horned fruit capsule splitting lengthways to shed its flat, black seeds.





Conservation Status

Status

Limpopo foxgloves do not appear to be threatened in any way; they occur over a wide area, and therefore cannot be considered rare.

Distribution and habitat

Distribution description

Only recently recognized in South Africa, this plant is restricted to plains of dark clay soils such as those 'turf' or 'cotton' soils well-known on the Springbok flats for the cultivation of cotton. The rich, dark, crumbly soil can be seen in the photograph below.



It is also known from open *Senegalia (Acacia)* woodland on similar plains in adjacent areas in Sekhukhuneland and along the Mogalakwena floodplain north of Mokopane, as well as in open Mopane woodland in the Kruger National Park on clay soils derived from basalt rocks. It thrives in full sun in these areas. Other plants, such as an undescribed species of *Corchorus* that grow together with Limpopo foxgloves, have been recorded from SE Botswana, S Zimbabwe, Mozambique and Swaziland as well, so it may be premature to say that the species is restricted to the Limpopo Province.

The areas where they are known to grow experience relatively hot summers and warm winters. Rainfall can be very low or infrequent, so the plant needs to grow fast to complete its life cycle. The hot summers typical of its natural habitat seem to be a requirement for this rapid growth.

The South African plants appear to be worthy of recognition as distinct from the Angolan *C. reniformis* Abels, which has a similar leaf (Abels 1975), and a new name will no doubt soon be published for this, our plant. *C. reniformis* differs in being perennial, has larger flowers and occurs at higher altitudes in grassland (Abels 1975).

This plant first came to my attention in 2003 while investigating 'turf' soil vegetation on the Springbok flats for the presence of another species restricted to this habitat. I was drawn to the flowers which were noticeably more intensely coloured than any of the strains of *Ceratotheca triloba* I knew from the Limpopo Province. Comparison with herbarium material confirmed that dthe leaves of C. *triloba* leaves were invariably trilobed, true to its botanical name. None had unlobed leaves like my plant, and what's more, the teeth on the leaf margin were much bigger! Subsequently I confirmed that *Ceratotheca* plants in similar habitats were in fact all of this nature. Differences had already been noted in 1993 by Guin Zambatis in the Kruger National Park, according to a specimen label in the National Herbarium.

Similar leaves led me to believe it might be *C. reniformis*, the name of which is derived from its kidney-shaped leaves (Abels

1975). This Angolan species, however, has flowers of a different shape and twice the size. Our plant thus now awaits a new name.

This species will be the sixth in the genus *Ceratotheca* , which is widespread in Africa south of the Sahara, but absent in the equatorial rainforest regions, in the Horn of Africa, and in the western parts of southern Africa. Other species in South Africa include the well-known *C. triloba*, and the more rare *C. saxicola*, a narrow endemic of the northeastern outlying ridges of the Soutpansberg (Abels 1975).

The shape of the flower suggests a pollinator different to its relative in Angola, but perhaps the same as the wild foxglove, i.e. a carpenter bee or honeybee (Van der Walt 2001). *C. triloba* is never found growing in the same type of soil, and prefers more sandy or gravelly soils, at least in the northern part of its range.

As this species was never recognized before as such, nothing is documented about its uses. I hope this note will help people to identify it and note its uses, whether or not they are the same as those of wild foxgloves. The colour of the flower in itself is enough reason to think that it may prove useful in horticulture.

This is a plant for the more adventurous gardener who doesn't mind experimenting, as nothing is currently known about its cultivation. It is thought that the Limpopo foxglove could offer an alternative in gardens where the soil is too clayey for wild foxgloves. The trick would be to try cultivating it in the same way as recommended for *C. triloba*, and then note any deviations. As it is an annual, propagation from seed should not be too difficult.

I would suggest that it may be useful in any *Ceratotheca* breeding programme, where crosses may introduce improved features such as disease or pest resistance and ability to cope with environmental constraints.