



Moraea alpina, photographed on Sentinel Peak, is confined to high altitudes as the name implies

Moraeas — our African Irises

The *Moraea* are bulbous plants with iris-like flowers distributed throughout Southern Africa, with high concentrations of species in the Western Cape and the Drakensberg, writes **Cameron McMaster**.

THE MORAEA ARE A LARGE AND diverse group of bulbous plants within the Iridaceae family. While some superficially resemble the iris flowers familiar to most gardeners, they are not closely related to the northern hemisphere's iris genus.

They differ, among other features, in that they have corms and are therefore bulbous plants, whereas irises usually have rhizomatous roots. Unlike most Iridaceae which have flat sword-shaped leaves with identical, lateral surfaces, the *Moraea* have bifacial leaves (the upper and lower surfaces differ). The leaves numbering one to three are usually channeled, sometimes flat and sometimes rounded.

Typically the flowers resemble iris flowers with three larger outer petals and three smaller upright inner petals. The outer petals are marked at the base with a prominent patch of a different colour, called a nectar

guide, to attract pollinators. In some species the petals are more uniform and fused at the base, forming a shallow cup. The flowers are borne in terminal clusters, emerging successively from two green bracts. They usually open for only one day, but in some summer-rainfall species the flowers persist for three days. Seeds develop in a capsule that splits longitudinally into three segments when ripe, releasing the seed.

What's in a name

The genus *Moraea* was named after the father-in-law of Carl Linnaeus, the Swedish botanist who introduced the binomial system of plant classification. He married Sara, whose father, Dr Johan Moraeus, was a physician.

Confined largely to sub-Saharan Africa, with only two species in Eurasia, there are roughly 195 *Moraea* species, the majority of which occur in the winter rainfall

region of the Western and Northern Cape. Many species now included in the genus *Moraea* were previously classified under separate genera such as *Gynandris*, *Homeria*, *Hexaglottis* and *Galaxia*. These are now regarded as groups within the expanded genus, the morphological differences being attributed to adaptations to diverse pollination strategies. Being so large a group it's appropriate that the winter and summer rainfall species will be dealt with separately in two articles.

The summer rainfall *Moraea*

While nearly two thirds of the *Moraea* species in SA occur in the winter rainfall region, they are nevertheless very well represented in the eastern summer rainfall region with high concentrations of species in the Drakensberg. They occur almost entirely in the grassland biome and are never found in forests. However, within the



ABOVE AND LEFT: *Moraea alticola* flowering at the top of Naude's Neck Pass between Maclear and Rhodes.



FAR LEFT: The dainty *Moraea elliotii* is one of the commonest and most widespread species in the summer rainfall region.

LEFT: *Moraea brevistyla* flowers in midsummer and is widespread in highland grassland.

'A prominent patch of a different colour called a nectar guide.'

grassland they are widely distributed from the dry Karoo plains and koppies to the rolling hills and mountains of the Eastern Cape, KwaZulu-Natal and Mpumalanga.

The different species vary in size from inconspicuous plants under 10cm in height to up to 1m. Prominent are the large, showy, yellow *Moraea* classified under the sub-genus *Grandiflora* that

'Unlike most Iridacea Moraea have bifacial leaves.'

forms large clumps often up to 1m in height. While most *Moraea* are deciduous, the species in this group are evergreen and the clumps persist for many years.

The most widespread species is *Moraea spathulata*, handsome with large, yellow flowers. It extends westwards to beyond Port Elizabeth in the Cape Floral Region and northwards into Limpopo. It generally flowers in early spring. *Moraea alticola* is a high-altitude species that sometimes occurs

in spectacular large colonies in marshy grassland in the Drakensberg at altitudes above 2 500m. It flowers in midsummer.

Moraea huttonii is a robust clump-forming species, with smaller flowers heavily marked with dark nectar guides. It's confined exclusively to the banks of mountain streams and is distributed from the Bosberg Mountains near Somerset East northwards to Lesotho and the Drakensberg.

Moraea reticulata is an autumn-flowering species that doesn't form clumps, but occurs as scattered individual plants with very long leaves often reclining on the ground and large, yellow flowers borne on rigid shorter stems. It's named for the fibrous (reticulate) network at the base of the stem and leaves. This species has a restricted distribution and is endemic to the Amathola Mountains near Hogsback and Stutterheim.

Members of the sub-genus *Homeria*, commonly know as "tulip", also extend into the summer rainfall region. The pale yellow *Moraea pallida* assumes almost weed-like proportions on roadsides and overgrazed

veld in spring in the Cathcart district. The blue *Moraea polystachya* is common throughout the Karoo and large colonies flower in late autumn, often indicating overgrazed, degraded veld. These are the true "tulip" which are most beautiful. However, they are poisonous to grazing livestock, which generally avoid them unless starving, when stock losses can occur.

A small spectacle

There are a host of smaller *Moraea* scattered throughout the eastern region. The most common of these is the blue-violet *Moraea elliotii* found as far north as Malawi. There are some lovely, small *Moraea* in the Drakensberg. *Moraea modesta* is a small white species with bright yellow nectar guides, and it flowers from October. Pale blue *Moraea alpina* and purple-spotted *Moraea vigilans* are small gems that can be seen on Sentinel Peak in January. Elsa Pooley's *Mountain Flowers: A Field Guide* is a great help as well as *Moraeas of Southern Africa* by Peter Goldblatt, Volume 14 of the *Annals of the Kirstenbosch Botanic Garden*.

• Contact Cameron McMaster at cameron@haznet.co.za. |fw

RIGHT: *Moraea dracomontana*, a Drakensberg species photographed near Tiffindell Ski Resort.

FAR RIGHT: *Moraea vigilans* from Sentinel Peak in the Drakensberg.



- Seeds develop in capsules that split longitudinally into three capsules.
- *Moraea* occur almost entirely in the grassland biome, never in forests.
- Only two species occur in Eurasia.