

FLORAL SECRETS OF THE BONTEBOK NATIONAL PARK

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Between the Langeberg Mountains and the southern Cape Coast is land that is locally called the 'rûens' (translated as 'backs'). The area gets its name from the rolling hills composed of shale of the Bokkeveld Group. In places these shales are capped with a hard cement-like material called silcrete that is more resistant to weathering than the softer shale. In other places the geology is of conglomerates that consist of stones and boulders that have solidified into a hard mass. This is livestock and grain-farming country and large tracts have been converted to agriculture. The land is arable and what is left of the natural vegetation, renosterveld and fynbos, are fragments that are unsuitable for the plough. To see the flora of this region one must rely on the plants 'conserved' in the corridors of the road reserve where they are not ploughed or grazed. Alternatively one has to obtain access to remaining fragments of natural veld on privately owned property for which permission is usually necessary. But are these the only options for those intrigued by this flora?

In 1960 a reserve was proclaimed near Bredasdorp to protect the rare antelope, the Bontebok (*Damaliscus dorcas dorcas*), endemic to the western Cape region, the numbers of which were dwindling. This

reserve fell under the National Parks Board (now South African National Parks). Within a few years it was realized that the bontebok population was not faring well. Mineral deficiencies resulting from grazing plants growing on the calcareous soils led to weaknesses in these animals. A decision was made to de-proclaim the existing Bontebok National Park and relocate the bontebok population to a more suitable tract of land. The area selected was close to Swellendam, bounded in the west by a wide sweep of the Breede River. The soils of the chosen area had a higher nutrient status than those of the former park and promised to be more suitable for the bontebok. As has so often happened in the past, the focus was on the well-being of the bontebok. What flora happened to be in present in the chosen area was purely incidental.

The Bontebok National Park is something of a 'Cinderella' since it does not have the attractive charisma of sporting 'the big five' or spectacular scenery and it has a past with some distinct 'downs' and only a few 'ups'. But that is not all there is to this national park! As one enters the reserve the immediate impression is of a featureless plateau with low shrubby vegetation. Yes, from the confines of a motor-vehicle this is so and to the uninitiated this impression may prevail. But drive

a little slower and look a little closer! Soon the apparently nondescript vegetation will reveal its secrets in sparks of colour: wildflowers in a fynbos matrix.

The vegetation of the lowlands of the western and southern Cape is highly threatened by conversion of land to agricultural uses. The area where the present Bontebok National Park is situated is no exception – cattle, sheep, wheat and other crops are farmed in the Swellendam district and little is left of the original vegetation. Apart from the food value of the vegetation for the ailing bontebok, little attention was given to the intrinsic value of the flora of the new park. It was purely fortuitous that in the process of selecting a new location for the Bontebok National Park, not only were the bontebok favoured but the fynbos and renosterveld vegetation of the proclaimed area gained protected status as well.

'So what?' the cynic may ask, 'As long as the bontebok and other animals introduced to the Bontebok National Park are happy, who cares about the flora?' The answer, 'No, the flora cannot just be ignored.' There is much in this vegetation that is important. By taking time for a closer look one is rewarded with an array of attractive yet subtle plants that all contribute to the ambience of the park and make it worth conserving, beyond the obvious value of the large animal population.

Floral flagship species

Perhaps the most special of the floral delights of the Bontebok National Park is *Acmadenia laxa*, a 'buchu' and a member of the Rutaceae or citrus family. This species is a low shrub up to 30 cm tall with branches arising from a rootstock at the base. The small leaves are aromatic, typical of buchus, and the five-petalled pink flowers are about 15 mm in diameter. The low bushes flower *en masse* from June to October providing a display for pollinating insects and the discerning visitor to the Bontebok National Park alike.

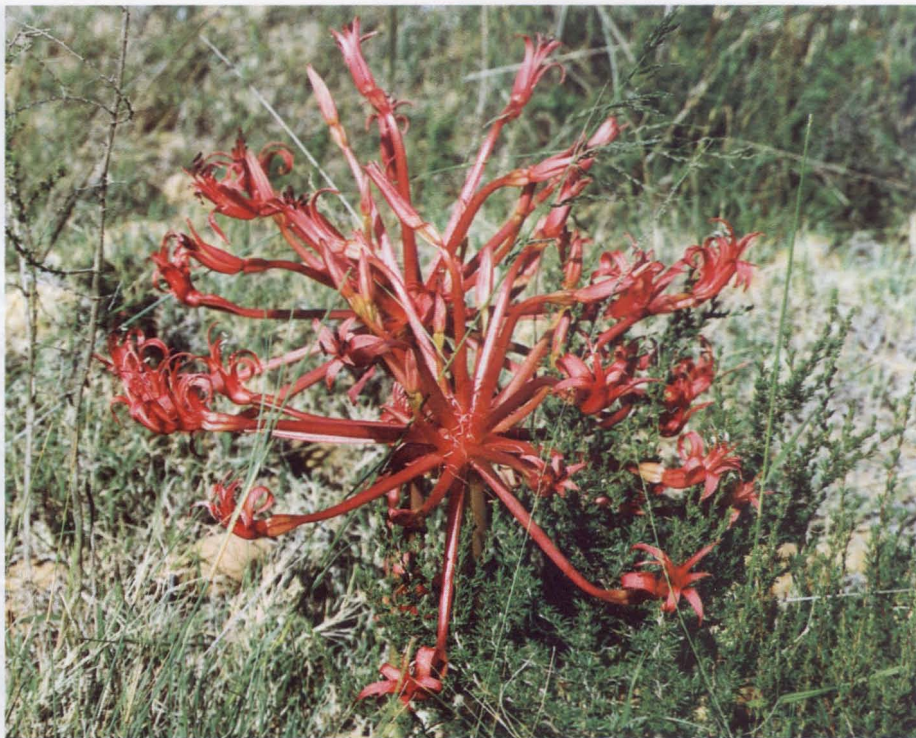
Why is this plant species so special? *Acmadenia laxa* occurs in a very small area (it is locally endemic) on the hills around Swellendam and Buffeljagsrivier. Plants are found at altitudes from 100-300 m on dry, stony gravel or shale. Many of the places where it formerly occurred have been transformed by agricultural practices, threatening the future of the species. Were it not for the population of *A. laxa* in the Bontebok National Park, the chances of survival of the species would be limited.

Acmadenia laxa is not 'big and hairy' but 'small and subtle'. It should be seen as the 'floral flagship species' of the Bontebok National Park as much as the bontebok is its counterpart in the animal kingdom.

Other floral vignettes

A further look at the flora and vegetation of the Bontebok National Park takes one from the massive to the minute. In winter the stands of *Aloe ferox*, particularly those close to the Breede River, present a breathtaking display of red-flowered candelabras. The flowers of these majestic plants provide copious amounts of nectar that attracts many species of birds and insects. The most striking of these are the malachite, lesser doublecollared and orangebreasted sunbirds.

On the gravelly, undulating plain, fynbos of low stature is found, often dominated by sturdy bushes of *Leucadendron salignum*, a species of cone-bush that sprouts from rootstocks after fire. With this species are numerous species of *Erica* (or heather) and the less conspicuous low, grass-like restios, all contributing to make the fynbos as intriguing and as diverse as it is.



Above. *Brunsvigia orientalis* with striking red flowers. Photo: Adin Greaves.

Below. *Acmadenia laxa* (Rutaceae), a rare species of buchu found in the Bontebok National Park. Photo: David McDonald.





In spring, bulbous plants show their heads and flower – with *Watsonia* species particularly striking in areas where fire has removed the vegetation cover and exposed the earth. These species include *Watsonia fourcadei*, *W. meriana* and *W. aletroides*. The yellow or orange chinker-inchee, *Ornithogalum dubium* can also be spotted in rocky places with shallow soil.

As the days get longer and hotter the spring flowers begin to fade giving way to those of summer-flowering species such as *Crossyne guttata* (Amaryllidaceae) which has a large rounded, Sputnik-like inflorescence. This structure is effective as a ‘tumbleweed’; it dries out and is blown by the wind, distributing seed from the capsules. Two other amaryllids with similar flowerheads worth looking out for are *Brunsvigia orientalis* and *Cybistetes longiflora*. *Brunsvigia orientalis* has dark red flowers with red flower stalks whereas *C. longiflora* has bright pink flowers. It should not be mistaken for its near relative, *Amaryllis belladonna*, the March lily, that it resembles very closely. The snake-lily, *Haemanthus sanguineus* also in the Amaryllidaceae, with its blood-red flower-stalk and shaving-brush-like head can occasionally be seen. If one is

Above.
The majestic *Aloe ferox* provides a blaze of red in the Bontebok National Park during the winter.

Photo: David McDonald.

Right.
The summer-flowering *Crossyne guttata* has a large rounded, Sputnik-like inflorescence, which dries out and is blown by the wind, distributing seed from its capsules as it tumbles along.

Photo: Adin Greaves.



observant, *Gethyllis villosa* and *G. afra* (some of the kukuma-krankas), may be encountered. All these plants produce their flowers long after the leaves have died back at the end of spring. This condition is known as hysteresis and is common in geophytes or bulbous plants that photosynthesize and build up the carbohydrate reserves in their bulbs during winter. The leaves then wither and disappear at the beginning of summer before the plants once again produce inflorescences.

The autumn is perhaps the duller time after the long hot

summer but then as temperatures cool and the days get shorter, winter-flowering species come into their own again.

It is not always what first meets the eye that is important and this holds true for the Bontebok National Park. More is conserved here than just the large ungulates; the vegetation with its special flora has an important place and needs to be conserved and appreciated for what it is. The Bontebok National Park is well worth a visit to do some flower-spotting. Put it on your ‘must visit’ list for next winter. ♡