

Suikerbosrand Nature Reserve



Cheetah day hiking trail

POINT 10: Highveld Protea. Members of the family Proteaceae are noted for the wide variety of forms which they take. The famous Swedish botanist, Carlous Linnaus, named these plants after Proteus is the Greek god of the sea and is believed to have the power to change his appearance.

The Highveld Protea or Suikerbos (*Protea caffra*) is the most common member of this family on the reserve. The mountain range running through the reserve as well as the reserve itself is named after this tree. This Protea flowers in mid-summer. Many Proteas are called 'Suikerbos' due to the sweet nectar produced by the flowers. Both insects and birds consume this nectar. As you proceed, you will notice that the Highveld Protea is predominantly present on the south-facing slopes.

POINT 11: Erosion. The dongas on your right hand side is a typical example of erosion caused by a large number of domestic cattle trampling and overgrazing the area. Most of the active erosion on the reserve itself has been stopped and all danger areas have been established. All potential erosion sites are monitored and reclamation work is executed when necessary.

The reserves management plan makes provision for measures to limit selective grazing and overgrazing.

Rock pile: You will notice a rock pile on top of the exposed ahead of you. This is man-made by hikers using the trail. We request that you **DO NOT** add to the pile, disturbing rocks disturbs the eco-system and makes the veld vulnerable to erosion.



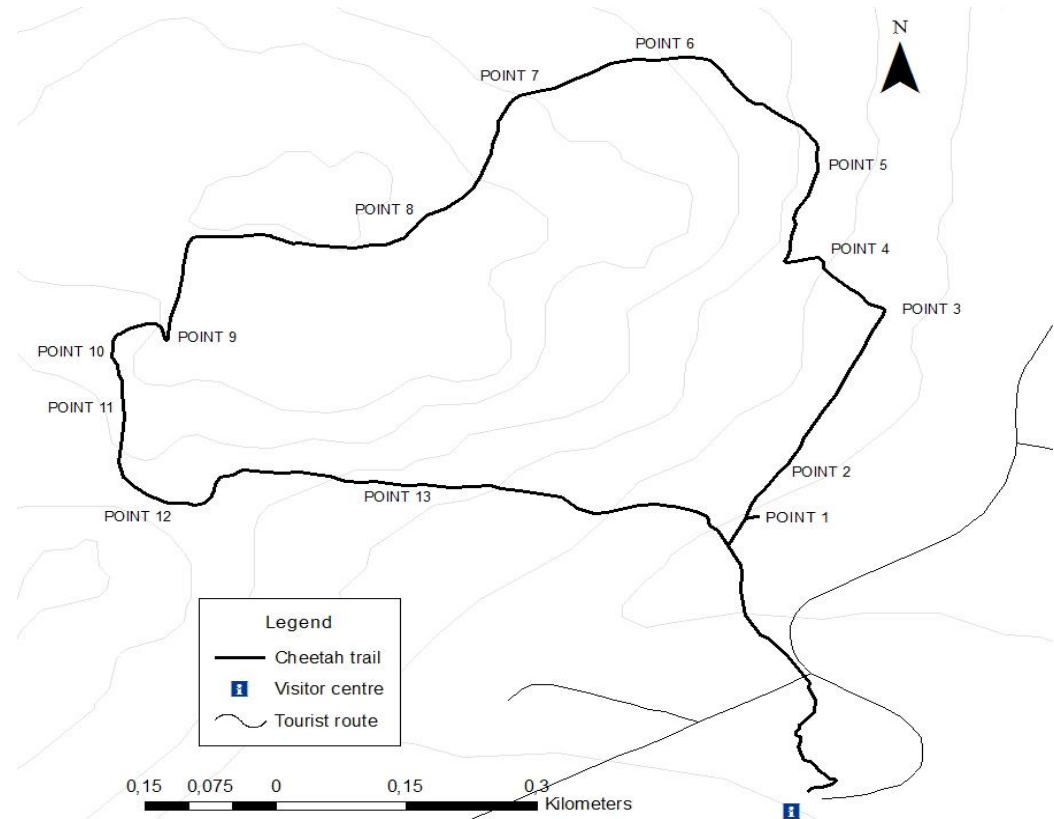
POINT 12: Cabbage Tree/Kiepersol (*Cussonia paniculata*). This tree is found throughout the reserve where there is protection in the form of rocky outcrops. The name Cabbage tree is derived from the blue-green leaves which resemble a cabbage in colour and texture.

The wood of this tree was used by early settlers for wagon brake blocks. African people used the wood for making drinking vessels and carving animal figures. These trees are browsed upon by several species including Eland. Duiker and Steenbok often feed on the leaves of smaller trees that they can reach. The fruit is consumed by many different birds.

POINT 13: Blue Guarri/Bloughwarrie (*Euclea crispa*). This evergreen shrub or tree is found throughout the reserve. The male and female flowers are on separate trees. A single-seeded fruit ripens from reddish brown to black. The genus name Euclea comes from the Greek word Eukleia meaning glory and fame, referring to the fine ebony-like wood of some species. Crispa refers to the wavy edges of the leaves. The shrub is widely utilized by animals, insects and birds.

Rules and regulations:

1. Please remain on the trail.
2. Picnicking or lighting of fires along the trail is prohibited.
3. Be careful when smoking – matches and cigarette stubs can cause wild fires.
4. Take all litter with you and dispose at a dustbin.
5. Hunting, poisoning, chasing, catching or disturbing any living creature is prohibited.
6. Disturbing, causing harm to or picking any form of vegetation is prohibited.
7. Feeding any living creature is prohibited.
8. Removing any natural item (plant, rock, animal) from the reserve is prohibited
9. Removal, modification or causing damage to any cultural heritage site is prohibited.



Trail length: 4 km
Duration: Approx. 1,5 hours
Office: 011 439 6300/079 439 0537
Emergencies only: 060 786 9336

POINT 1: Pioneer house and cemetery. Jan Gabriel Marais, who travelled from Beaufort-West to the Suikerbosrand during the great trek, built the pioneer house located to the east of the main entrance road. Together with his wife, Cornelia Jacobsa Marais and their children, they established a mixed farm at the foot of the magnificent kloof, known today as Diepkloof. The house built in 1845 is one of the oldest in Gauteng.

Having a small cemetery established close to the homestead was common practice in the early days. When a member of the family passed away, a service was held by the deceased's family, neighbours and farm labourers. The service was held in the house or garden. From there the small group of mourners carried the burial chest to the cemetery.

POINT 2: Outhou/Old Wood (*Leucosidea sericea*). The name of this tree may refer to the twisted trunks or to the fact that the wood is highly inflammable. The wood burns or rather smoulders slowly as if it were old and rotting. The roughed-brown bark flakes off easily and gives the tree a weathered appearance.

This tree is used medicinally for intestinal worms and eye inflammation. The leaves and young shoots are browsed by game.

POINT 3: Cheesewood tree/Kasuur (*Pitosporum viridiflorum*). This is a hardy, evergreen tree. It flowers from October to December and has sweet scented flowers which are greenish-white to cream in colour. Flowers occur in clusters at the end of twigs. The fruit is green at first and becomes yellowish-orange and splits as it ripens to show orange-red shiny seeds. The tree is reputed to have medicinal properties and is used to treat feverish conditions and stomach complaints. In many parts of the country African people use an infusion of the bark towards evil spirits

POINT 4: Old Kraal. Evidence on the reserve indicates that Stone Age hunter-gatherers used the hills as a refuge while hunting the abundant wildlife which inhabited the surrounding grassland. Iron age man, with cultures developed in the far north, displaced stone age man. It is generally accepted that the first large-scale settlement on the reserve occurred between 600 and 700 years ago.

The best preserved parts of the reserve's prehistoric record are the large number of stone-walled sites similar to the one in which you are standing. These date back to the late Iron Age. These Iron Age shelters are spread over the western side of the reserve where, because of its geographical make-up, abundant building material was available for the construction of stone enclosures. The Suikerbosrand sites are believed to have been built by the ancestors of the present Sotho/Tswana speaking people.

POINT 5: Old Field. The grassland to the right (east) of the tar road is an old field in a fairly advanced stage of succession. You can clearly see the markings of an old field with short grass tall grass and isolated shrubs. Before the reserve was established maize was grown in the field. The process of re-vegetation starts as soon as cultivation stops, even before the crop is harvested. Annual grasses and weeds are slowly replaced by perennial grasses. This is termed the primary grass stage. The area then enters the secondary grass stage. The time taken from annual weeds and grasses to the primary grass stage is approximately four years. The succession from the primary grass stage to the secondary grass stage may take eight or more years. After this the area moves toward the sub climax stage.

POINT 6: Adaption. Aloes are adapted to survive in hot dry conditions. Aloes have a shallow root system and often occur on rock slabs where water cannot penetrate deep into the soil. Water is stored in the plants thick fleshy leaves. The leaves have a wax covering and very few stomata to limit evaporation (transpiration). Leaves are also arranged in a rosette shape allowing rain water to be led to the roots to the maximum extent. The aloes are protected by bitter sap and thorns on the leaves, so they can limit their utilization by other organisms.

There are 3 main aloes species on the reserve: Grass aloes (*Aloe greatheadii* v *dayana*), Transvaal aloes (*Aloe transvaalensis*) and the Mountain aloes (*Aloe marlothii*).

POINT 7: Pollution. From this view point you are able to see Johannesburg, located approximately 40 km from the reserve. The city is often covered in a layer of smoke, smog and other environmental poisons. The pollution problem in South Africa is severe and closely linked to our population explosion. With population increase comes the inevitable deterioration of the environment and disruptions to various ecosystems.

Pollution is not confined to cities and its effect is often felt hundreds of kilometres from where the pollutants enter the system. Acid rain is one such problem. Sulphur dioxide and nitrogen oxide resulting from coal fires and industry are washed into the soil and affect vegetation and freshwater ecosystems. This type of pollution has a massive effect on the country's economy. We, as humans kind are dependent on air, water and soil to live and should take precautions not to pollute our resources.



POINT 8: Succession. At this point one will notice small bright yellow patches on the rocks around you. They are lichen. These are mainly small, flat, primitive plants. The rocks act as support for lichen and other plants to grow on. Lichen can also grow on any solid object with a rough enough surface to cling on to. As you proceed on the trail you may see lichen growing on stems and branches of trees and shrubs. Lichen play an important role in the primary colonization of bare areas. Over very long periods of time, lichen is able to cause decomposition of the rock surface into soil particles.

Previously along the trail at point number 5 we looked at the colonization of an abandoned field. Succession can also occur on bare rock and dried lakes or ponds. The first plants to colonise a bare rock are called pioneers. The rate of succession will differ according to the site and surrounding vegetation. The colonization of a rock may take thousands of years due to the harshness of the surface.

POINT 9: Bankenveld. The early settlers in the Witwatersrand area called the low bench-like hills with their own unique vegetation the Bankenveld, a term still used today. This reserve is within an area of great botanical diversity and over 1000 species have been identified. The flat hill tops, low-lying plains and cool south-facing slopes support the grasslands characteristic of the Bankenveld and Highveld in general. In contrast, the warm north-facing slopes carry shrubs and trees. In the many valleys and in the protection of the rocky outcrops, woody vegetation is abundant.

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