

# Conservation of sansevierias in Kenya

by LEONARD E. NEWTON

## Zusammenfassung

Die natürliche Vegetation in Kenia ist durch viele Bedrohungen konfrontiert, die sich hauptsächlich aus dem exponentiellen Wachstum der menschlichen Bevölkerung und der Notwendigkeit künstlicher Landnutzung ergeben. Der Autor untersucht, wie *Sansevieria*-Arten hiervon betroffen sind und gibt Beispiele zu Arten, die an ihren Typ-Standorten ausgestorben sind.



Fig. 1 – *Sansevieria frequens* at the type locality, on a private farm and safe.

With 25 species plus some still undescribed, representing about a third of the genus, the East African country Kenya is the centre of diversity for the genus *Sansevieria*. They are found in most of the country, from coastal regions to over 1,800 metres altitude in the highlands. Some are very widespread, such as *S. frequens* (hence the specific epithet), whilst some are known so far from only the type locality, such as *S. francisii*.

Much of Kenya's natural vegetation faces several threats as the human population grows and the country develops. At the start of the 20<sup>th</sup> Century there were about 1.7 million Kenyans. Now there are over 48 million. People need homes, schools, shops, and hospitals. Factories are required for the manufacture of various commodities, and farms are needed for producing food. Meeting all of these needs adds up to a very great loss of natural vegetation as more land is used.

Some *Sansevierias* are useful locally (Takawira-Nyenya et al., 2014), but not on a large-scale commercial basis. Commercial collecting of plants for the horticultural trade is another threat to Kenyan succulents, but this has mostly concentrated on the genera *Aloe* and *Euphorbia*, stapeliads, and various caudiciform plants, such as *Adenia globosa* and *Pyrenacantha malvifolia*. In an assessment of the conservation threats faced by succulent plants (Oldfield, 1997), *sansevierias* were not included in the list of succulents of concern.

A major botanical collector of Kenyan plants, who provided much material used in Kew for writing the *Sansevieria* monograph by N.E. Brown (1915), was an agricultural officer, Henry Powell. He is commemorated in the name *Sansevieria powellii*. The type locality of this species was stated by Brown as Mackinon Road, which appears on modern maps as Mackinnon Road. There it was said to be "common". In Powell's time this was a halt on the then recently built railway line from the coast to the capital, Nairobi, and beyond to Uganda. Probably there were just a few scattered farms in the area, but after the railway station appeared a small town has grown around it. I have not seen the *S. powellii* in the town centre, but it is still to be seen just a few kilometres away.



**Fig. 2** – *Sansevieria powellii* a few kilometres from the type locality.



**Fig. 3** – *Sansevieria ascendens* inflorescence, with ascending branches.

**Fig. 4** – *Sansevieria gracilis* from a locality well away from the type locality.

**Fig. 5** – *Sansevieria ascendens* next to a road that is being widened, thus threatening the plants.

Another species that Powell collected was named by Brown (1911) as *Sansevieria gracilis*, the type locality of which is given as Mazeras. Powell had commented “fairly common at Mazeras”. Again, at the time of collection Mazeras was little more than a halt on the railway. Later Mazeras grew into a much larger town than Mackinnon Road, and I was unable to find the *Sansevieria* in or around the town, so this species now seems to be extinct at its type locality. Fortunately it still occurs elsewhere in south-east Kenya.

A more recent case of a species becoming extinct at its type locality is that of *Sansevieria ascendens*. In 1975 John Lavranos and I went to climb Taru Hill, also in south-east Kenya. There we collected several plants, including a new *Euphorbia*, which was later named as *Euphorbia taruensis*. To reach the hill from the main Nairobi–Mombasa road we passed along a track through an extensive dense thicket of sansevierias. I had little interest in the genus *Sansevieria* at that time, but I returned to the area in 2003 when I was trying to make sense of the Kenyan species. Powell had collected specimens here and he sent them to Kew, where Brown (1915) erroneously called them *S. arborescens*. The locality was described as “Taru desert or jungle” — one of my favourite locality descriptions! I concluded that this was an undescribed species, which I named as *Sansevieria ascendens* (Newton, 2010). A few years later I passed the same area and found that this wild bushy area had been cleared of vegetation and I found

a school, many houses, and some plots of farmed land. I know of at least two other localities for this species, though one of those is also under threat from road widening and possible construction of houses that could follow.



**Fig. 6** – *Sansevieria ascendens*, thrown out during road widening.  
A horrible sight, but at least the shoots could be collected and rooted up.

There are also cases of plants having disappeared from localities that were not the type locality. An example is *Sansevieria bella*, which I found in 1998 amongst rocks on a rocky rise near the road passing along the eastern edge of the Rift Valley, south-west of Nairobi (Newton, 2000). The area was heavily grazed by cattle and goats, and the few plants that I saw were in deep clefts between rocks, where they could not be reached by the animals. Some years later I drove along the same road and found that there were many more houses and other buildings in the area, and the rocky rise had been cleared away.

Many species, such as *S. ballyi* and *S. frequens*, are quite widespread, and they appear not to be threatened. Some, such as *S. francisii* and *S. pinguicula*, are known from just one or a few localities. They are in remote areas that are difficult to monitor and it is not known if they are in danger.

In conclusion, Sansevierias are not specifically targeted by conservation threats. They suffer during general clearance of natural vegetation from land being developed for buildings or farming.



Fig. 7 – *Sansevieria bella* from the type locality.



Fig. 8 – *Sansevieria pinguicula*, in fruit.

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## Comment

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