

SNR FACT SHEET



BRUNSVIGIA ORIENTALIS

Candelabra flower, Koningskandelaar, Perdespookbossie
Amaryllidaceae



Late summer in Steenbok Park sees the emergence of the spectacular crimson Candelabra flower or *Brunsvigia orientalis* which grows in scattered colonies in coastal sand. The bud of this large bulb pushes up through the sand on its sturdy stem before a leaf can be seen, and produces up to 40 flowers in a head shaped like a rounded candelabra.

As the flowers fade the ovaries enlarge and become papery and eventually the flower stem breaks away and the flower head is blown about, tumbling over the ground and scattering its seeds. These 'balls' blowing in the wind no doubt give rise to the Afrikaans name *Perdespookbossie*.

The plant was initially called *Amaryllis orientalis*, but in 1753 Lorenz Heister, a botanist and professor of medicine at the University of Helmstädt, renamed it *Brunsvigia* in honour of his patron the Duke of Brunswick. Karl Wilhelm Ferdinand (1735-1806), a cultured and benevolent despot, promoted the study of plants. The bulb had been sent to Germany in 1748 by Cape Governor, Ryk Tulbagh, who was very interested in the flora and fauna of the Cape and regularly sent plants and stuffed animals to Europe.

Brunsvigias are deciduous and have adapted to the dry period of the year by resting underground. The large flower heads appear shortly before the rainy season. Sunbirds searching for nectar in the tubular flowers are their chief pollinators. Once the seeds have been scattered they germinate very quickly, giving the seedling a full rainy season to develop sufficiently to withstand its first dry season underground.

The leaves usually appear from about May, after the flower head has dried and broken off. There are usually about six large tongue-shaped leaves spread flat on the ground. They start to die down from October, thus helping the bulb to retain moisture through the long dry summer.

Brunsvigia orientalis grows on sandy lowland coastal areas, from southern Namaqualand to Worcester; the Cape Peninsula to Knysna. The colony on Steenbok Nature Reserve has the highest concentration of plants in the Knysna area — a scattering of plants can also be seen at the Knysna Elephant Park and Westford Bridge Private Nature Reserve.



In 2000 interested Island residents counted 880 of these bulbs in Steenbok Nature Reserve, but by 2008 the count had dropped to 220. Most *Brunsvigias* are erratic in their flowering behaviour and do not like their bulbs or roots disturbed. Moles cannot be blamed for the drop in numbers as toxins in the bulbs ensure that moles or mole rats do not eat them. It has been suggested that attacks by the Lily borer or Amaryllis worms (*Brithys crini pancratii*) and the invasive Cotton grass (*Imperatus cylindrica*) may be



factors contributing to their decline.

In 2009 large numbers of the Lily borer worms were noticed feeding on the *Brunsvigia* leaves. Experts were consulted and advised that moths called the Lily Leaf Miner (*Brithys pancratii*) that lay their eggs on the leaves were enjoying a population explosion, possibly because of the abnormally dry climatic conditions. However as they overexploit their food resource, their population will inevitably crash. Artificial control of the moth larvae has adverse ecological consequences and therefore was not undertaken in the Reserve. The experts felt that damaged bulbs would re-grow in time and new seedlings would increase the numbers once more - given adequate rainfall.



This approach was proved to be correct as the 220 blooms counted in 2009 increased to 350 blooms in 2010; 525 in 2011 and 472 in 2012. However, in spite of good rains in 2012 there was a dramatic and puzzling drop in 2013 – only 75 blooms were counted. It will be most interesting to see what happens in the future.

For further botanical information on the *Brunsvigia orientalis*, please see our website: www.steenboknaturereserve.org.za

Photos: Shelley Godsell, Margaret Richards & Roger Voysey

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