



Two contrasting stapelias

by Colin C. Walker

Introducing *Stapelias*

There are roughly 350 species of stapeliads of the family Apocynaceae. They occur in southern Europe, Africa, Madagascar, Arabia and eastwards into Asia (India and Myanmar). They are all fleshy stemmed succulents that are more or less without leaves. Their flowers are specialised for fly pollination and most produce foul-smelling scents and hence are known as 'carrion flowers'. The genus *Stapelia* itself includes just 28 species from southern Africa (southwards from Angola, Zambia and Mozambique), characterised by having usually four-angled hairy stems and hairy, five-lobed flowers (Bruyns, 2005). Stapelias have an incredible range of flower size with *Stapelia erectiflora* having the smallest (around 1 cm in diameter) and *S. gigantea* being the largest (at up to 40 cm across). Indeed the latter flower is one of the largest of all flowering plants. Here two species are showcased as having contrasting flower size and shape: *Stapelia divaricata* and *S. leendertziae*. A similarity between them is that they are both relatively rare in the wild.

Stapelia divaricata

Stapelia divaricata has been illustrated infrequently despite its history going back for over two centuries. Francis Masson (1741–1805) was the first official plant collector sent out from the Royal Botanic Gardens, Kew, to

collect living plant material at the Cape of Good Hope for King George III. Masson was at the Cape for three journeys between 1772 and 1795 and was in South Africa for 12 years in total. Masson is renowned especially for his work on stapeliads on which he published his now famed monograph *Stapeliae Novae* published from 1796–7. *Stapelia divaricata* Masson is one of his new species collected sometime before 1792. He named this new species 'divaricata' meaning 'straggling' for the sprawling (divaricate) nature of the stems.

Stapelia divaricata exhibits considerable variation in flower size and colour but the species is easily recognised by its rather odd stems and the unusual waxy appearance of the flowers.



Fig. 1. *Stapelia divaricata* flowering in cultivation in an 18 cm diameter pan.

My plant shown in Fig. 1 has stems typical of the genus being four-angled with small tubercles and leaf-rudiments. Its stems are bright green, tinged with purple but only up to 8 mm across and hence fairly slender for the genus; these are very finely pubescent like fine sandpaper. They have the erect to straggling arrangement for which the species was named.

The flowers of *Stapelia divaricata* are small, only up to 5 cm diameter, but those illustrated here are only 3.5 cm diameter (Fig. 2). So this is, therefore, at the lower end of the range for flower size in the genus. Flowers are shiny with an unusual waxy appearance and very variable, ranging from flesh coloured as here to purplish. The centre of the flower of my plant is very pale pinky white, whilst the lobes are a much deeper dusky pink with the tips similar to the central flower. The surface of the



Fig. 2. Close up of the flowers of *S. divaricata*.

flower is not smooth but is marked by fine, rough, irregular lines (rugulose). The flower appears to be hairless (glabrous) to the eye but does in fact have a few small fine hairs principally on the edge. The margins of the lobes are reflexed.

Stapelia divaricata is the rarest and most localised of all stapelias (Bruyns, 2005). It occurs in only a few localities east of Swellendam in the Western Cape Province where it forms dense and quite large clumps up to 30 cm diameter. Specimens are usually tightly wedged between stones and small bushes (Bruyns, 2005). It is therefore much to Masson's credit that he discovered this rare and highly localised species.

Stapelia leendertziae

Stapelia leendertziae is one of the most distinctive and striking species, being the only *Stapelia* with a large flower tube. It is a very well-known and widely grown species. It was first collected in 1909 by Miss R. Leendertz growing among rocks near Heidelberg south of Johannesburg and described by the renowned student of stapeliads, N.E. Brown of Kew.

My plant is about 25 cm across growing in a 12 cm diameter pan. The plant is typical of species of *Stapelia*. Its stems are up to 15 cm long and 1.5 cm across, well branched



Fig.3. Bud of *S. leendertziae*.

from the base, 4-angled bearing small erect teeth with tiny deciduous leaves, velvety-pubescent (covered with very short dense hairs) and mottled purple when grown in strong light, tapering towards the tip. The plant first flowered for me in August–September 2021 when it produced just a single flower. The bud (Fig.3) has a prominent beak and the pedicel (stalk) is 1.5 cm long. The fully open flower is shown in side view in Fig. 4. The flower was tricky to photograph because the inside is so dark, hence the use of illumination for some of the photos (Fig. 5). It has a large bell-shaped (campanulate) tube about 8 cm long and 6.5 cm diameter at the mouth. The inside and the outside of the flower are a uniformly rich burgundy, whilst the outside is also glossy with longitudinal veins. The inside tube is not shiny but finely rugulose (ridged) over the whole surface. The lobes are 4.5 cm wide at the base and 5.5 cm long with

short hairs only on their edges. The flower has a strong aroma of over-ripening Brie or Camembert and I observed that the scent diminished overnight and was strongest late afternoon. The flower lasted for five days.

Stapelia leendertziae is the only *Stapelia* with such a large flower tube and indeed it is remarkable in the genus for its large and very conspicuous bell-shaped flower. Its closest relative is *S. gigantea* which has significantly larger flowers overall – up to 40 cm in diameter in some clones – but

these have a much shorter, shallower tube but with longer lobes. *Stapelia leendertziae* is, therefore, quite distinct from any other species.

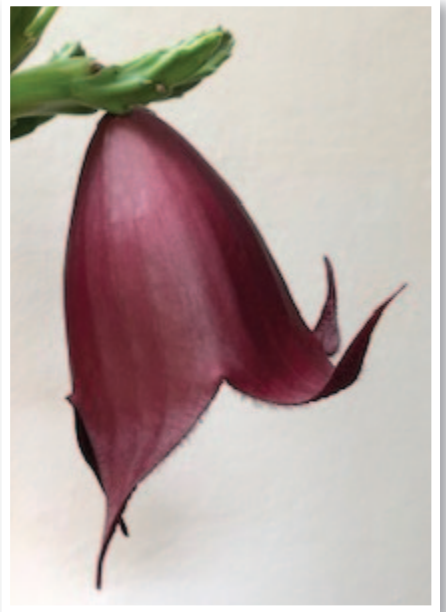


Fig.4. Lateral view of the flower of *S. leendertziae*.

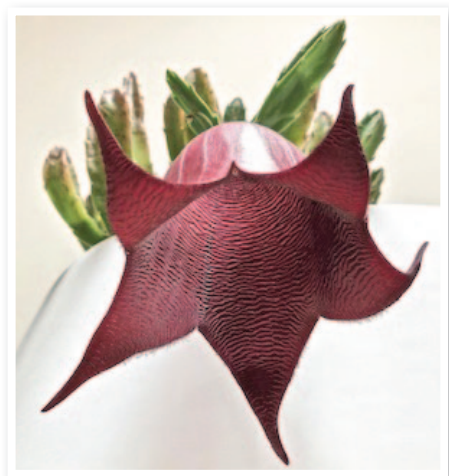


Fig.5. View of an illuminated flower of *S. leendertziae*.

Stapelia leendertziae appears to be very rare or localised in the wild. Bruyns (2005) records that "it is distinctly uncommon in the field and has not been collected often". The species is now known to have a distribution in north eastern South Africa and Eswatini (Swaziland). Bruyns notes further that it "always seems to grow on rocky ground, on slopes or on flat areas with shallow soils which are derived from sandstones or dolomite".

Acknowledgement

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Reference

Bruyns, P.V. (2005) *Stapeliads of Southern Africa and Madagascar*. 2 vols. Umदाus Press, Hatfield, South Africa.

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