Stapelia gigantea - "der Goliath dieser Gattung"

Journal Item

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I was delighted to be asked to contribute to the 100th issue of Avonia. I have watched your journal develop through its formative years beginning back in 1983 as Informationsschift die Anderen Sukkulenten with its A5 format and covers adorned with line drawings, through its next incarnation as Die anderen Sukkulenten and finally to Avonia. Now in A4 format and full colour, Avonia is a truly prestigious publication in the world of succulents. My hearty congratulations extend to all who give their time and effort to make Avonia such a notable addition to the literature.

My chosen subject is Stapelia gigantea since this species has also reached a significant milestone, having been first described 140 years ago, hence reaching another anniversary well worthy of celebration.

Stapelia is now considered to be a modest sized genus with 28 species currently recognised (Bruyns, 2005) and widely distributed throughout southern Africa south of Angola, Zambia and Mozambique, being most diverse in South Africa.

Within this genus the claim to fame of Stapelia gigantea is that it is, as heralded by its name, truly a giant. The species was first described in 1877 by the renowned Kew botanist Nicholas Edward Brown, who called it ‘The goliath of its genus’ (Brown, 1877). Brown was a leading student of succulents at Kew where he worked in the herbarium from 1873 until his retirement 41 years later. He never visited succulents in habitat, but his work has lasting value because of his remarkable powers of observation. He was especially interested in stapelias, euphorbias and mesembs and described many new species, most of which are still recognised today. He wrote up the Apocynaceae (including the Asclepiadaceae) for two of Kew’s major projects: Flora Capensis (Flora of South Africa) and Flora of Tropical Africa.

The species was first illustrated as a woodcut line drawing (Fig. 1) published in the renowned serial magazine Gardeners’ Chronicle, which began in 1844. So impressed was Brown by his new species that in his series of articles published in the Gardeners’ Chronicle in 1877 on the stems may separate it from S. unicornis and S. nobilis, which is distinctly one of the most well-known species of its genus. White & Leach (1985) in the most recent modern revision of the genus said that “Of all the species in this so very variable genus, S. gigantea is probably the most variable. There is more or less continuous variation in almost all characters, with few, if any correlations either morphological or geographical, so that taxonomic recognition of any particular pattern is quite impossible”. Surprisingly for such a widely distributed and long duration species it has accumulated relatively few synonyms but there are some, the most important of which is Stapelia nobilis. This latter species was also described by Brown (1901) but its distinction from S. gigantea has long been a source of confusion. White & Sloane (1937) struggled somewhat, saying that “The distinctions between the types of the two species are clear enough in living plants and flowers, but in dried material they are not always so easily recognizable. If S. gigantea is primarily a giant, S. nobilis is distinctly one of the nobility”. Noble it may be, but sufficiently distinct from S. gigantea it is not and Leach (1985) finally resolved the issue by merging them into a single entity using the oldest and most familiar specific epithet.

Stapelia gigantea grows in a variety of habitats including rocky slopes, coastal sand dunes and unusually for a succulent, alongside mangrove swamps. Records for Kenya and Tanzania appear to be garden escapes, so that the species is apparently not indigenous to these East African countries (Bruyns, 2005). The closest relative to S. gigantea is S. uncornis which has a much more limited distribution and occurs principally in the Lebombo Mountains where South Africa, Swaziland and Mozambique meet. The distribution range of these species overlaps across most of the limited range of S. unicornis, but there are apparently no records of hybridisation between the two. The distinctive pale green colour and long hairs of the stems of S. uncornis make it easily distinguishable, whilst the flowers are significantly smaller, usually being only 10 cm across – but exceptionally can be up to 13 cm. The slender tapering corolla lobes of our species easily separate it from the other large-flowering species such as S. gettifi, S. grandiflora and S. hirsuta (Bruyns, 2005), who also says that “Vegetatively, the narrower angles on the stems may separate it from S. grandiflora and they clearly separate it from S. hirsuta, where the angles are always far more obscure”. Stapelia gigantea is, therefore, not unique amongst the large-flowering stapelias but it is a combination of characters that make it so distinctive. If size is important then this feature alone makes this species stand out from the crowd, well deserving the accolade of “goliath of the genus” as bestowed by Brown 140 years ago.

References see German part.

Dr Colin C. Walker,
School of Environment,
Earth & Ecosystem Sciences,
The Open University,
Milton Keynes, MK7 6AA,
England.
Email: c.walker702@btinternet.com