

***Sansevieria varians* N.E.Br. and the Puzzles of the Past**

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Abstract

For a long time already experts have been wondering about the *Sansevieria* species *S. patens* and *S. varians* which were newly described in 1915 by Brown in his monograph but are no longer cultivated. The author goes back to hints given by Brown himself and assumes that other species were described under these names a second time because information on their origin had been imprecise. In a nomenclatural act he presented *Sansevieria patens* N.E.Br. and *S. sordida* N.E.Br. In the journal "Succulenta" as heterotypic synonyms (in accordance with ICBN, Art. 41) of *S. varians* N.E.Br. Since Brown had described the latter first (ranking). He explains this with a lack of morphological (eidonomic) diagnostic features. (Mansfeld 2018)

Introduction

In his monograph on the *Sansevierias*, Brown published 54 species more than 100 years ago. (Brown 1915)

In the course of time it has long been found that some of these were recognized and determined as synonyms. The situation is different, not to say mysterious, with so-called lost species. Lost species because often no origin and no collector were given in the description. Even when revisions of Brown's taxonomy were made, which were always very sensible, not all problems could be eliminated. Today we have known for a long time that the previous criteria for delimiting the species are not sufficient, because the variations such as length and width as well as the position of the leaves, their number and coloring and whether they are rough or smooth can vary greatly from species to species. Juvenile and adult specimens of the same species are often no longer immediately recognizable as related.

The problem is most evident with the widespread type of the genus, namely with *Sansevieria hyacinthoides*. It was once cultivated for commercial reasons not only in Africa, where it originally came from, but also in the Caribbean, Central and South America, and Indochina. The species, which was already mentioned in the 18th century, has already been assigned 29 synonyms, which show major differences. (Mansfeld 2013) It becomes even clearer with *S. concinna*, which hardly misses a chance in terms of leaf size, leaf shape and leaf colour. (Mansfeld 2017b, Ott 2017) Even rough and smooth leaf surfaces have been identified as forms of *S. ballyi* at the same locality. (Mansfeld 2016b, 2017a)

Material

One of the supposedly uncultivated and still unexplained species from the Brown monograph undoubtedly includes *S. patens*. The name appeared in the American I.S.I (International Succulent Introductions) in 2004 as "type clone". However, the following description by Chahinian raised doubts that the *Sansevieria* described here with the same specific epithet could by no means be that of Brown. (Chahinian 2005, 93) In fact, the plant turned out to be a garden hybrid between *S. canaliculata* and *S. pearsonii* and is now called *Sansevieria* 'Ed Eby'. (Newton 2005, Jankalski 2006a, 2006b)

The origin and identity of Brown's described *Sansevieria patens* remains questionable. All herbarium specimens visible in Kew come from the collection of Evans (# 272 [K]) from Kenya in 1903. Peter Bally (# 8177 [K]) collected another specimen on the western shore of Lake Naivasha in Kenya in 1952, which has so far been determined to be *S. suffruticosa*. The collection of Pawek (# 7392 [MO, UC, K, SRGH]) in 1973 in a gorge on the southern Rukuro, a river in northern Malawi is correctly *S. downsii* and also not *S. patens*. On April 14, 1966, Horst Pfennig received a plant by the name of *S. patens* from the Luknow Botanical Garden in India, which he listed under the collective number "Pf 0158" and which flowered for the first time on September 27, 1976. His precise information and the accompanying photo correspond to the first description by Brown. (Pfennig 2017)

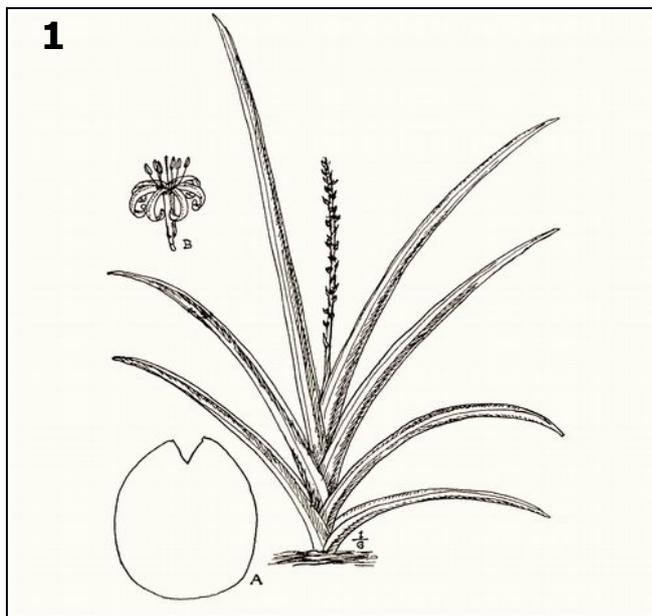


Fig. 1 – *Sansevieria patens* (source: Brown 1915)

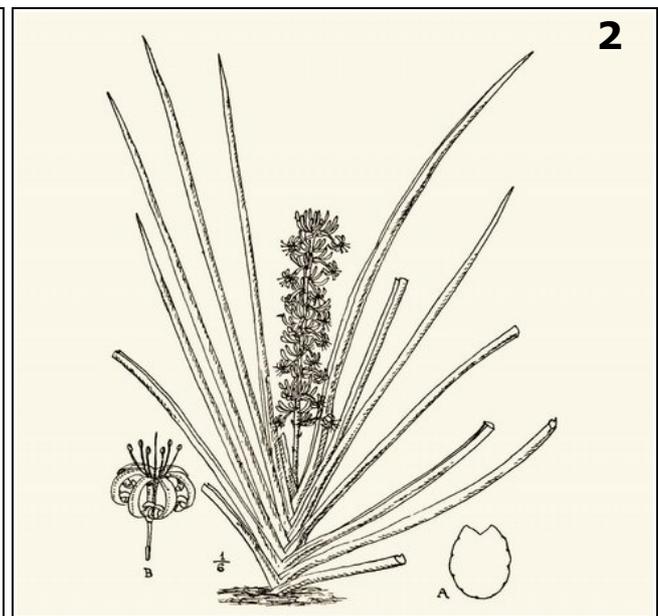


Fig. 2 – *Sansevieria sordida* (source: Brown 1915)

Another species of Brown's allegedly described from culture material is *Sansevieria sordida*. A.P. Grenfell (# 4 [K]) first collected the species on March 31, 1906 between Voi and the Taita Hills in Kenya. Further documents exist from M. Bull (# s.n. [K]) from Chelsea from March 5th, 1910 without proof of origin. Only on October 15, 1948 did L.E. Codd (# 4461 [K]) collect them in South

Africa in the Zoutansberg District on the farm Hamilton near Dongo. When Brown speaks of the fact that the original origin of *S. sordida* is unknown, he obviously refers first to the plant obtained by M. Bull of Chelsea, London, which apparently immediately flowered. In fact, *S. sordida* appears to be widespread. At least collections from Kenya and South Africa are known and more recently apparently also from Zambia, which at the same time also indicates a larger variance of the species. The specific epithet 'sordida' (Latin) means 'dirty' and refers to the species flowers, which are pale greenish-white and mottled with purple; therefore not entirely white. (Mansfeld 2013, 2016a) Chahinian's interpretation that the choice of the specific epithet refers to pollution of plants with ferrous dust in the savannah is simply wrong. (Chahinian 2012)



Fig. 3 + 4 – *Sansevieria varians* (herbarium document)

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It becomes even more mysterious with the *Sansevieria varians* described by Brown. The plant was initially erroneously cultivated at Kew for many years under the name *S. zeylanica* and although the author stated a close relationship between *S. varians* and *S. patens*, actual differences could not be specified. Both species look so suspiciously similar that a specific differentiation does not seem justified. The choice of the specific epithet "varians" (Latin) means "alternately" and refers to the

double-spaced, straight or slightly curved leaves; similar to the spreading leaves of *S. patens*. (Mansfeld 2016a) If Brown's assumption is correct that the origin of the plant could be India, then the plant documented by Pfennig (Pf 0158) takes on a whole new meaning. However, such an assumption seems very speculative to me. The botanical garden in Luknow has always been in contact with European, and especially British, gardens. Why shouldn't even clones find a way back to Europe? Surprisingly, although *S. varians* is now considered a non-cultivated species, the northern provinces of South Africa are unanimously considered to be of origin.

Table 1 - Comparison of the species

| | <i>S. patens</i> | <i>S. sordida</i> | <i>S. varians</i> |
|-------------------------------|---|--|--|
| growth habit | stemless | stemless and/or trunk up to 5 cm long | stemless |
| rhizome diameter (mm) | 20–25 | 20–25 | 20–25 |
| leaves | 5-10 per shoot, in two rows, spreading out like a fan from the base with a notched, sharp-edged groove on the upper side, which is flat at the base and notched towards the tip | 4-12 per shoot, in two lines, upright straight or spread out with a notched, sharp-edged groove on the upper side, which is flat at the base and notched towards the tip | 4-8 per shoot, upright in two rows, straight or slightly curved with a notched, sharp-edged groove on the upper side. Sometimes also semi-cylindrical with a flat gutter |
| leaf size | 45–90 cm long, 1,7–4 cm thick | 65–105 cm long, 0,8–1,3 cm wide 1,3–2 cm thick | 38–115 cm long, 1,2–2,5 cm thick |
| leaf color | dull bluish green, tapering upwards with light green transverse bands, adult with blackish green longitudinal lines | dull bluish-green with 11–15 continuous furrows | dull and dark grass green with light green transverse bands and dark green longitudinal lines; adult imprinted, furrowing |
| leaves apex | white, sharp-edged, hard 6–13 mm long | white, sharp-edged, thorn-like | 4–8.5 mm long, white, very hard |
| leaf margin | green, basal 2.5–15 cm brown with white edge | hard, very narrow dark brown with membranous white edge | green or reddish brown with a white edge |
| leave surface | slightly rough | rough | slightly rough, nearly smooth |
| Inflorescence | spicate (thyse) 40–75 cm long | spicate (thyse) 30–60 cm long | spicate (thyse) 60–70 cm long |
| partial inflorescences | loosely, 2–8 flowers per cluster | loosely, 7–14 flowers per cluster | loosely, 6–10 flowers per cluster |
| flowers | pale white tinged with purple | pale, greenish-white, mottled with violet | white, mottled with purple at the tips |
| perianth tube (mm) | 9–11 | 7–10 | 10–12 |
| lobes (mm) | 13 | 12–16 | 14–16 |



Fig. 5 – *Sansevieria varians* at the Karoo Desert Botanical Garden in the Western Cape Province of South Africa. Endemic to the Northern Provinces is shown here among the native species of South Africa. (photo: Elmar Mai)

Results

In a direct comparison of all three *Sansevieria* species, it becomes clear that a distinction makes no further sense. In a first step I have performed a merger according to ICBN, Art. 41 (International Code of Botanical Nomenclature). *Sansevieria varians* deserves precedence here, since it is named before the other two species in Brown's monograph. As heterotypic synonyms, *S. patens* and *S. sordida* can be assigned to this species. (Mansfeld 2018)

Description

Sansevieria varians N.E.Br. (Bull. Misc. Inform. (Kew), No. 5, 1915, p. 209.) type: Kenya, RSA Northern Provinces, Zambia [K], (fig. 3–4), (= *Sansevieria patens* N.E.Br., Bull. Misc. Inform. (Kew), No. 5, 1915, p. 210., (= *Sansevieria sordida* N.E.Br., Bull. Misc. Inform. (Kew), No. 5, 1915, p. 214.

Sansevieria varians grows stemless or with a stem up to 5 cm long and with 2–2.5 cm thick rhizome. The two-row, upright, spreading or ascending, cylindrical or semi-cylindrical 4–12 leaves grow like a fan with a notched, sharp-edged gutter on the upper side. The dull and dark grass-green, sometimes dull bluish-green leaves show lighter green transverse bands and dark green longitudinal lines forming continuous furrows on adult plants. They end in a very hard, white, sharp-edged tip that is up to 13 mm long. The leaf margin is green, indurate, or reddish-brown with a membrane-like edge. The leaf surface is slightly rough.

Inflorescence: spicate (thyrses), with acyclic cluster-like partial inflorescences, 30–75 cm long. The loosely arranged clusters bear 2–14 flowers per cluster. The flower color is pale white to greenish white, mottled with purple. perianth tube 7–12 mm long, lobes 12–16 mm long. Fruit: berry-like, single to triple, pea-sized, orange. Seeds: 5–7 mm.

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References

- BROWN, N. E. (1915): *Sansevieria - a monograph of all the known species*. In: Bulletin of Miscellaneous Information, No. 5, Royal Botanic Gardens, Kew, p. 185–261.
- CHAHINIAN, B. J. (2005): *The splendid Sansevieria; an account of the species*. Buenos Aires, 178 pp.
- CHAHINIAN, B. J. (2012): *The names of Sansevierias, Part 1: Sansevieria species*. *Sansevieria* 26, p. 19–22.
- JANKALSKI, ST. (2006a): *Sansevieria patens or is it?* In: *Sansevieria* 15, p. 8–9.
- JANKALSKI, ST. (2006b): *Brown's Sansevieria monograph - an update*. In: *Sansevieria* 15, p. 21–29.
- MANSFELD, P. A. (2013): *Die Gattung Sansevieria – Alle Arten und ihre Pflege.*, BoD Norderstedt/Hamburg.
- MANSFELD, P. A. (2016a): *Die Etymologie der Sansevierien oder was bedeuten die Namen?*. In: *Sansevieria Online*, vol.4(1) p. 21–27.
- MANSFELD, P. A. (2016b): *Sansevieria ballyi L.E.Newton (Asparagaceae) and newly found field notes*. In: *Bradleya* 34, p. 225–229.
- MANSFELD, P. A. (2017a): *Die beliebte Sansevieria ballyi und die wahre Geschichte ihrer Entdeckung*. In: *Sansevieria Online*, vol. 5 (1) p. 24–35.
- MANSFELD, P. A. (2017b): *Sansevieria concinna nicht nur aus Mosambik bekannt*. In: *Sansevieria Online*, vol. 5(2) p. 4–13.
- MANSFELD, P. A. (2018): *Drie namen voor één Sansevieria?* In: *Succulenta*, vol. 97(3) p. 122–127.
- NEWTON, L. E. (2005): *Whats is Sansevieria patens?*. In: *Sansevieria* 13, p. 3.
- OTT, G. H. F. (2017): *In Kultur beobachtet: Sansevieria concinna*. In: *Sansevieria Online*, vol. 5(2) p. 14–20.
- PFENNIG, D. (2017): *The collection: Dr. Host Pfennig*. (<http://www.sansevieria-pfennig.eu/Pf0151-200/Pf%200158.pdf>) date: 13/12/2007