A NEW SPECIES OF *VANGUERIA* FROM THE SOUTPANSBERG

Vangueria soutpansbergensis *N. Hahn* sp. nov. *V. parvifoliae* Sond. [= *Tapiphyllum parvifolium* (Sond.) Robyns ex Good] affinis sed foliiis glabratis. Figure 2.

TYPE.—Northern Province, Soutpansberg, 2230 (Messina), Farm Studholme, 22° 56' 52.4" South and 30° 01'18.8" East (Cape Mapping Datum), (–CC), 1 440

m, 28-11-1995, (in flower), *N. Hahn 1112* (PRU, holo.; K, PRE, iso.).

A deciduous shrub or small tree up to 2.5 m high, growing in mixed woodlands in soils derived from Soutpansberg Group quartzites. *Bark* dark brown to grey-brown. *Branches* glabrous. *Leaves* opposite or fascicled, if fascicled usually on dwarf lateral branches; lamina elliptic to almost circular, (13.6–)16.2–25.2(–26.7) × (9–)12.9–18.9(–22.8) mm; base obtuse to rounded; apex obtuse to rounded; glabrous above and below, seldom very sparsely hairy when young, dark green above, paler below; petiole short, (0.5–)1.1–2.4(–2.7) mm long, glabrous to rarely sparsely hairy; margins entire; lateral veins 3–5, opposite to alternate near the leaf base, otherwise alternate. *Inflorescence*: dense 2–15-flowered fascicles or peduncu-late cymes. *Peduncle* and *pedicel* glabrous or very sparsely hairy, pedicel (1.5–)2.1–2.9(–3.7) mm long. *Flowers* 5-merous, greenish to lime-green. *Calyx lobes* (1.2–)1.7–1.9(–2.6) × (1–)1.3–1.4(–1.9) mm, glabrous to sparsely hairy. *Corolla* glabrous to sparsely hairy on outside, with a distinct ring of reflexed hairs in throat; tube (2.3–)2.5–2.7(–3.2) mm long, (2.1–) 2.5–2.8(–3.4) mm in diameter at mouth; lobes elliptic-oblong (2.9–)3.3–3.5 (–4.1) mm long, occasionally mucronate abaxially at apex. *Stamens* inserted in corolla mouth. *Anthers* exserted, (0.9–)1.3–1.4(–1.6) mm long. *Style* (3.1–)3.6–3.9 (–4.6) mm long, glabrous, conversely curved so as to touch throat of tube between two anthers. *Disc* (1.8–)2.2–2.3(–2.8) mm in diameter, depressed or tumid. *Hypanthium* (1.1–)1.6–1.7(–2.1) mm long. *Fruit* a glabrous, subglobose drupe, length (15.3–)17.9–24.1

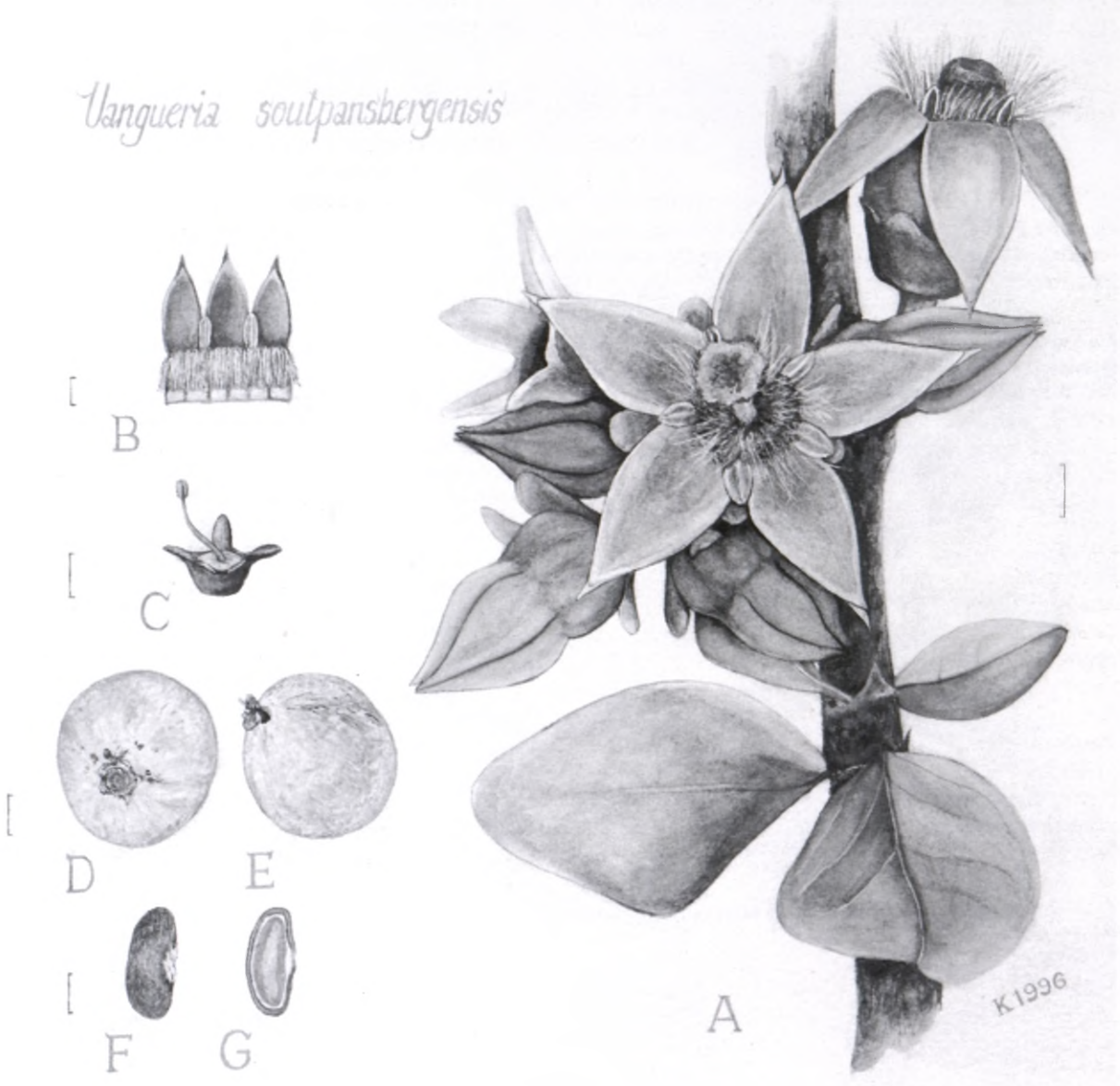

FIGURE 2.—*Vangueria soutpansbergensis*. A, flowering branch; B, opened corolla, showing hair fringes and position of anthers; C, flower with tube removed, showing calyx, disc and conversely curved style; D, fruit seen from the base, showing the remains of the calyx ring; E, side view of fruit; F, pyrene; G, cross section through pyrene, showing shape and position of embryo. Scale bars: A, B, ± 1 mm; C, ± 2 mm; D–G, ± 10 mm.

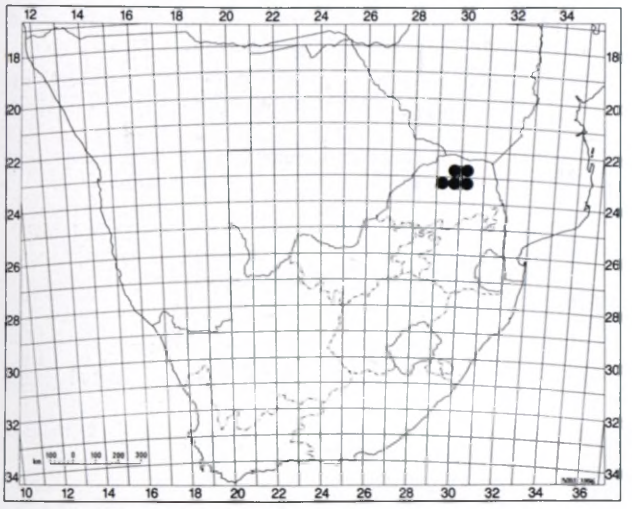

FIGURE 3.—The known distribution of *Vangueria soutpansbergensis*.

(–27.5) mm, width (14.7–)17.5–25.9(–29.4) mm, breadth (13.6–)16.3–23.7(–27.2) mm; pedicel (0.5–)0.8–1.9 (–2.3) mm long, with 1–4 pyrenes, edible, tasting similar to those of *V infausta;* seeds bean-shaped. *Flowering period*: November to December. *Fruiting period:* March to April.

Specimens examined

NORTHERN PROVINCE.—2229 (Waterpoort): Muswiru, Schlesingers sawmill, (–DC), *G. Gerstner 5912* (K n.v., PRE); Farm Surprise, (–DC), *N. Hahn 454* (Herb. Sout.); Farm Uniondale, (–DC), *N. Hahn 329* (PRU, Herb. Sout.); Farm Clydesdale, (–DD), *N. Hahn 613* (Herb. Sout.); Farm Rushton, (–DD), *N. Hahn 650* (Herb. Sout.); Farm Zwarthoek, (–DD), *N. Hahn 109* (PRU, Herb. Sout.). 2230 (Messina): Piesanghoek, (–AA), *G. Gerstner 5736* (PRE); Farm Studholme, (–AA), *N. Hahn 1112* (K, PRE, PRU, Herb. Sout.); *N. Hahn 1164* (K, PRU, Herb. Sout.).

Habitat

The geographic distribution of this species correlates with other endemic taxa of the Soutpansberg flora. A phytogeographical survey of the endemic flora of the Soutpansberg (Figure 3) being undertaken by the author has shown that the endemic species of the Soutpansberg can be divided into two broad groups according to their habitat preferences, namely: 1, species occurring in a relatively restricted area and displaying little variation in their habitat preference; 2, species distributed over most of the mountain range showing a relatively large habitat tolerance. *Vangueria soutpansbergensis* falls within the latter group, occurring in a variety of habitats ranging from mountain mistbelt to *Androstachys* woodland.

Generic disposition

Having studied all members of the genera *Pachystigma*, *Vangueria*, *Lagynias* and *Tapiphyllum* in the context of the Soutpansberg, I conclude that the flowering structures and fruiting structures of *Tapiphyllum parvifolium* are identical to those of *Vangueria*. Bridson (1996) expressed doubt as to the generic dispensation of *Tapiphyllum parvifolium* as it was atypical of the genus in many respects: 'small leaves, few-flowered inflorescence, larger glabrescent fruit and occurring outside the main distribution area of the rest of *Tapiphyllum*'. *Tapiphyllum parvifolium* and *V. soutpansbergensis* are without doubt closely related. This supports the argument that they should be placed under the genus *Vangueria*.

Key to genera of the tribe Vanguerieae in the Soutpansberg region

1a Calyx lobes short, linear or triangular, shorter than the corolla tube . . . . . *Vangueria*
1b Calyx lobes long and leafy, as long as or longer than the corolla tube:
2a Calyx lobes spathulate; fruit narrowing towards apex . . *Lagynias*
2b Calyx lobes linear; fruit not narrowing towards apex . . *Pachystigma*

Specific disposition

The tribe Vanguerieae is notorious for its taxonomic complexities. The genera are poorly defined, and at specific level, characters available for the separation of taxa are very few and at best can be seen as very artificial. The morphological differences between *Vangueria soutpansbergensis* and *V parvifolia* are very slight and concern mainly the degree of hairiness of various organs (Table 2). *V. soutpansbergensis* is nevertheless recognized at species level for the following reasons: a) other similarly closely related species pairs are widely recognized in Rubiaceae, for example, *Vangueria infausta* subsp. *infausta* and *V. cyanescens* and *Canthium mundianum* and *Canthium gilfillanii*; b) even though *V. soutpansbergensis* and *V. parvifolia* are sympatric in some places no intermediate forms have been found; c) *V. soutpansbergensis* is endemic to the Soutpansberg, a region with a high occurrence of endemic plants and animals.

Vangueria soutpansbergensis is by no means a rare plant, usually occurring within mixed woodlands, on rocky slopes where it may be common. The species has so far only been found growing on soils derived from quartzite, an attribute shared with most endemic plant species of this region.

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TABLE 2.—Summary of characters separating the two species of *Vangueria*

	V. soutpansbergensis	*V. parvifolium*
Distribution	restricted to Soutpansberg	occurring from Northern Cape to Northern Province and within southeastern Botswana
Bark colour	grey to dark brown	grey to grey-brown
Young branches	glabrous, seldom sparsely hairy	tomentose
Outside corolla	glabrous to sparsely hairy	densely hairy
Calyx	glabrous to sparsely hairy	densely hairy
Pedicel	glabrous	hairy

assistance and for allowing me access to that herbarium. I would also like to thank Ms Diane Bridson for scrutinizing the original manuscript and for her invaluable comments given. Lastly I would like to thank Karen Marais for her beautiful water colour plate accompanying this article.

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