

Aloe huntleyana, a new species from the Baynes Mountains, Namibia

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Summary: *Aloe huntleyana* Van Jaarsv. & Swanepoel is named from the Kaokoveld. It belongs to a group of five closely related species from southern Angola, but immediately distinguished by its leaves which remain persistent along the stems, its horizontally spreading to drooping inflorescence of relatively short subdense racemes, of which the flowers are subsecundly arranged. The flowers when fully open are spreading nutant and not pendent.

Zusammenfassung: *Aloe huntleyana* Van Jaarsv. & Swanepoel wird als neues Taxon aus dem Kaokoveld beschrieben. Sie gehört in eine Gruppe von fünf nahe miteinander verwandten Arten aus dem südlichen Angola, unterscheidet sich aber auf den ersten Blick durch die Blätter, die entlang dem Stamm ausdauernd sind, sowie durch die horizontal ausgebreiteten bis überhängenden Blütenstände mit relativ kurzen, eher dichten Rispen mit annähernd einseitwendig angeordneten Blüten. Bei voller Öffnung sind die Blüten ausgebreitet-nickend, nicht hängend.

Introduction

Aloe huntleyana was first collected on an expedition to Omavanda, northern Namibia, on July 7th 2004 by Steven Carr and the authors on the eastern upper margin of the plateau, just below 2,000 m (Figures 1–2). Only a single young plant (Figure 3) was spotted growing from a rock face (Van Jaarsveld, 2008). This young plant was collected and grown on at Kirstenbosch National Botanical Garden. The plant grew rapidly, soon becoming branched, bearing spreading scandent branches. When it first came into flower it was thought to be *Aloe catengiana*. Several attempts to relocate *A. catengiana* at Catengue Railway Station failed. The authors were privileged to

visit Angola on three occasions and collected the related species *Aloe vallisaris*, *A. palmiformis*, *A. gossweileri* and *A. scorpioides*. These were all grown at Kirstenbosch, flowering annually and their behaviour studied, specimens prepared and comparisons made. One of us (E.v.J.) was also pleasantly surprised when photos of a flowering *A. catengiana* were received from Duke Benadom, former editor of the *Cactus and Succulent Journal of America* and the identity of the Omavanda plant clarified, here described as a new species.

Aloe huntleyana Van Jaarsv. & Swanepoel **spec. nov.** ab *Aloe vallisaris* *Leach foliis a caulem persistentibus, inflorescentiis 1–3-ramosis, racemis subdensis e subcapitatis, 130–150 mm longis, floribus subsecunde dispositis 28 mm longis, ad anthesim patentibus sed haud pendentibus discedit.*

Type: Namibia, 1713 (Swartbooisdrif): Omavanda, upper east facing sandstone cliffs. (–AA), Van Jaarsveld, Swanepoel & Steven Carr 18805 (Wind, holo.).

Arborescent shrub, much-branched from its base, spreading to pendent, up to 0.5 m long and 2 m wide. Roots fleshy. Branches not straight, often with a slight zig-zag, leafy, 12–14 mm in diameter, with leaves tending to be crowded in apical rosettes of about 300–400 mm in diameter; internodes 15–20 mm long. Leaves linear-lanceolate, 160–180 × 20–30 mm, spreading, recurved in upper half, slightly falcate, greyish green but turning reddish in the dry season; upper surface flat to convex, slightly channelled during the dry season, lower surface convex, sparingly spotted in lower half, distinctly striate at the amplexicaul internodes; margin sinuate-dentate, armed with



Figure 1. The Baynes Mountains at Omavanda, Namibia.

yellowish green pungent teeth 3–5 mm long and 8–12 mm apart; apices acuminate. Inflorescence up to 300–400 mm long, simple, or divaricate with up to 3 branches in lower half, at first pendent with apices bending up, the lowest branch distinctly arcuate ascending. Peduncle plano-convex at its base 7–10 mm in diameter, purplish green to green, with few sterile bracts the longest 10 × 15 mm.

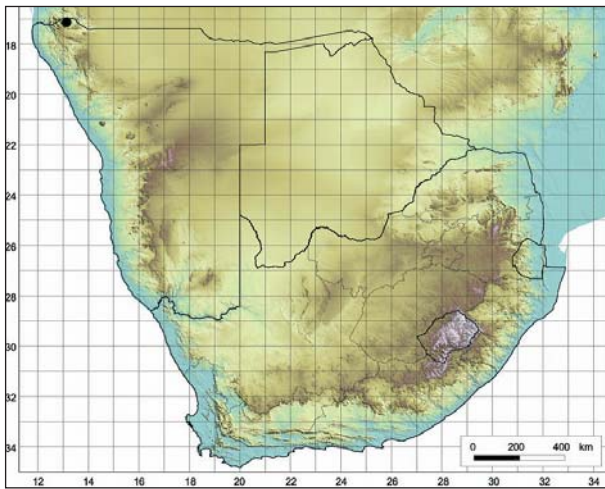


Figure 2. The distribution of *A. huntleyana* in northern Namibia.

Racemes conical-triangular, subsdensely and subsecundly flowered, 130–150 mm long and 40–50 mm in diameter the lateral 80–110 mm, the buds ascending spreading, open flowers spreading, but slightly drooping; pedicels 8–10 mm long; bracts ovate-acuminate scarious, up to 5 × 3 mm becoming smaller upwards. Perianth red, becoming whitish and yellowish at the apex in open flowers, cylindrical, slightly decurved, 28–29 mm long; base obtuse, very shortly stipitate and 6 mm in diameter; outer segments free for 10 mm, 3–4 mm broad, inner segments 4–5 mm broad, apices obtuse. Anthers about 3 mm long, pollen reddish pink, becoming shortly exerted (about 2 mm). Ovary green 5 × 2.5 mm. Stigma exerted to 2 mm. Capsule and seed not seen. (Figures 3–7.)

Flowering time: mainly in autumn (April–June). Seeds dispersed by wind in winter, just before the spring rains.

Discussion

A. huntleyana grows on east-facing sandstone cliffs (Damara Sequence) on the Omavanda escarpment margin (the northeastern Baynes Mountains) at an altitude of 1,800–2,000 m (Figures 1–2). *A. huntleyana* grows firmly

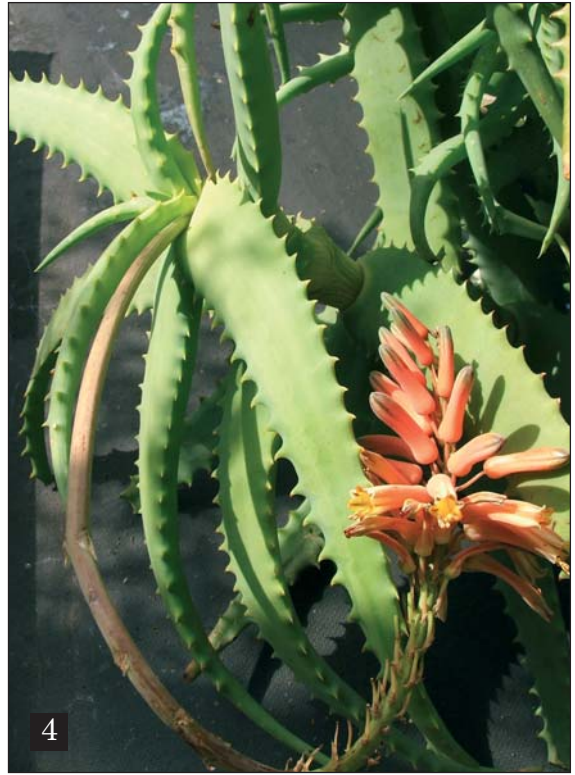


Figure 3. The original plant of *A. huntleyana* in its rock face habitat, collected in July 2004. The plant grows on east facing cliff faces. **Figure 4.** *A. huntleyana* in cultivation at Kirstenbosch. **Figure 5.** The subdense, subsecundly arranged raceme; note the green tipped buds.



Figure 6. The stem of *A. huntleyana*. **Figure 7.** Plant showing the inflorescence and foliage.

Table 1. Comparison of closely-related arborescent *Aloe* species (information mainly from Leach, 1974; Reynolds, 1966).

	<i>A. catengiana</i> Reynolds	<i>A. gossweileri</i> Reynolds	<i>A. huntleyana</i>	<i>A. palmiformis</i> Baker	<i>A. scorpioides</i> Leach	<i>A. vallis</i> Leach
Distribution	Catengue Railway Station, Angola 400–500 m	East of Lobito, Angola 1,000 m	Omavanda, Namibia 1,600–2,000 m	Lubango Serra da Chella, Angola 1,700–2,200 m	Lubango, Serra da Chella and Serra Neve, Angola, 900–2,100 m	escarpment cliffs, Leba to Tchivingueru, SW Angola 1,500–1,800 m
Geology	granite	granite	sandstone	sandstone	granite	sandstone
Vegetation	Mopane savannah	gallery forest	dry <i>Combretum</i> savannah	grassland & Miombo woodland	Miombo woodland & grassland	afrotemperate forest
Height & habit	shrubby, thickets 1.5–3 m in diameter. Branches ascending, deciduous below	1–1.5 m, erect, branched from the base, deciduous below	sprawling branched, shrubby, up to 1 m diameter and 50 cm wide, branches leafy	erect, 1–1.5 m, shrubby but sparingly branched, deciduous below	branched shrub up to 800 mm, deciduous below	shrubby, sprawling to pendent, branches leafy
Leaf colour & orientation	pale yellowish, grey-green, numerous pale green lenticular spots, spreading to deflexed near base	green, spreading to slightly recurved	dull greyish green, ascending, spreading	dull green with reddish tinge, spotless, spreading recurved	leaves yellowish green, spreading-recurved 30 × 3.5 cm	leaves tilted, dull bluish to greyish green
Leaf margin	sinuate-dentate teeth 3 mm long, 8–10 mm distant	sinuate-dentate, teeth 3–4 mm long, 15 mm distant	sinuate-dentate, teeth 3–5 mm long, 8–12 mm distant	sinuate-dentate, teeth 4–5 mm long, 10 mm distant	sinuate-dentate, teeth 2–3 mm, 10–15 mm distant	dentate, teeth 2–2.5 mm long, 10–12 mm distant
Inflorescence	branched panicle, 40 cm long, racemes laxly flowered cylindrical-acuminate, the central 160 mm long	divaricately 6–8 branched, pyramidal panicle, racemes 100–150 mm long, subsecundly flowered	simple to 3-branched, 300–400 mm long, racemes subdensely subsecundly flowered, conical trigonous, 80–150 mm long	raceme, simple or up to 4-branched and 40–50 cm long, racemes cylindrical elongate 10–20 cm long	simple or one-branched, racemes, arcuate ascending, raceme 11–25 cm long, cylindrical acuminate or long conical	simple or one-branched racemes, elongate, cylindrical acuminate 32–45 cm long
Perianth (mature)	cylindric, 28 mm long, slightly decurved, ovary 6 mm, buds ascending becoming spreading when mature	cylindric-trigonous, 30 mm long, outer segments free for 10–12 mm, flowers drooping	cylindric, 28–29 mm long, slightly curved, outer segments free for 10 mm	cylindric-trigonous, 30 mm long, segments free for 10 mm, buds ascending, flowers pendent, ovary 6 mm long	cylindric-trigonous, 24–28 mm long, buds suberect, becoming drooping, ovary pale green, 6 mm long	cylindric, 20–25 mm long, slightly curved, outer segments free for 4.5–6 mm, flowers vertically presented, ovary 5.5 mm
Flower colour	rose-pink, green-tipped	scarlet	reddish	rose-scarlet	scarlet	bright scarlet
Pedicels	10 mm	10 mm	8–10 mm	13–15 mm	8–10 mm	4–4.5 mm
Bracts	ovate-acute, 5 × 3 mm	ovate-acute, 3 × 2 mm	ovate-acuminate, 5 × 3 mm	2–3 mm long, small	linear-acuminate, 6.5 × 3.5 mm	ovate-acute, 4.5 × 2.5 mm
Flowering time	June, July	June–July (mid-winter)	April–June	April–June	May, June	April–June

wedged in crevices (Figure 3) and the rosette becomes pendent from a young age. The plants are rare and restricted to inaccessible cliffs. The plants are pollinated by sunbirds. The vegetation consists of savannah with plants such as *Combretum apiculatum*, *C. zeyheri*, *Cyphostemma currorii*, *Entandrophragma spicatum*, *Kirkia acuminata* and *Mundulea sericea* being prominent.

Associated cliff dwelling species include *Cotyledon orbiculata*, *Cyphostemma currorii*, *Euphorbia subsalsa*, *E. monteiroi*, *Kalanchoe lanceolata* and *Sarcostemma viminalis*. Other non-succulent species include *Ficus glumosa*, *F. ilicina* and *Petalidium coccineum*. Omavanda is within the tropics, with hot summers and dry, warm winters without frost. Rainfall occurs mainly in summer with 300–500 mm per annum.

In vegetative features *A. huntleyana* closely resembles *A. vallis*, a sister species from the western Angolan escarpment near Humpata (Leba Pass & Tjivingueru). It is at once distinguished by its slightly larger size, internodes of 15–20 mm apart, larger flowers of 28 mm in length and dense shorter subdensely and subsecundly flowered racemes of 8–15 cm. The raceme of *A. vallis* is elongate 32–45 cm and the flowers 20–25 mm long, pendent when open. For differences between this closely related group, see Table 1. This group of aloes belongs to the arborescent group (Group 19 in Reynolds, 1966). In common most have a shrubby growth. The leaf sap of *A. huntleyana* is translucent but dries to a light yellowish brown colour.

We have pleasure in naming this species after Professor Brian Huntley for sponsoring one of us (E.v.J.) visiting Angola without which it would not have been possible to clearly place this species. The visit enabled him to study the close relatives in their native habitat. Professor Huntley has been the director of the National Botanical

Institute for a period of 20 years, during which this institute displayed tremendous growth under his leadership.

A. huntleyana is a worthwhile introduction to horticulture. It is best grown in dry bushveld gardens (Van Jaarsveld, 2010). It propagates readily from cuttings planted in a well-drained, sandy mixture and grows fairly fast. The plants thrive on steep embankments, in large hanging baskets or on windowsills. Outside its habitat, it is best grown under controlled conditions in containers in a greenhouse. Plants grown at Kirstenbosch are being increased by vegetative means and will be released and introduced through its annual plant sale and from the nursery at Kirstenbosch in future.

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