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Aloe huntleyana – a rare cliff-dwelling Namibian endemic

Colin C. Walker c.walker702@btinternet.com

Discovery and habitat

Aloe huntleyana was discovered in 2004 in the Omavanda area of the Baynes Mountains in the northern Kaokoveld, Namibia, just south of the border with Angola. The Baynes Mountains are a prominent feature in the Kaokoveld where the highest peak is 2,065 m. Its eastern part consists of mineral-poor, well-drained sandstone rocks with a plateau surrounded by sheer cliffs. The climate is tropical and rainfall is mainly during the summer (Van Jaarsveld, 2008).

Aloe huntleyana was first collected on an expedition to Omavanda on 7th July 2004. Steven Carr, Ernst van Jaarsveld and Wessel Swanepoel discovered this new species on the eastern upper margin of the plateau, just below 2,000 m. They observed a single young plant, which had the appearance of a small plant of *Aloe arborescens* but with spots on the lower leaf surface, growing from a crevice in a rock face. The full account of the discovery of this species is given by Van Jaarsveld & Swanepoel (2012) and Van Jaarsveld & Condy (2015). This single plant was collected and grown on at Kirstenbosch Botanic Garden (Van Jaarsveld & Swanepoel, 2012).

This new discovery in Namibia was at first thought to be the Angolan species *Aloe catengiana* which was first described by Reynolds (1961) from the southern Angolan highlands, where apparently it is fairly common. The name is derived from the Catengue railway station where it was first discovered by Reynolds in Angola in 1959 and where it formed dense thickets of more or less tangled stems.

However, after studying the new discovery in cultivation and comparing it with authentic material of *A. catengiana*, Ernst van Jaarsveld later decided that the Namibian plant is a different species which he described as *Aloe huntleyana* in the 2012 volume of *Bradleya* (Van Jaarsveld & Swanepoel, 2012). Incidentally, this was the last issue of that journal that I edited.

Aloe huntleyana is a cliff-dweller (cremnophyte) and due to its fairly inaccessible cliff habitat it is not threatened but is currently assessed as being rare in Namibia. Since only a single specimen was observed in habitat, which was then collected, this species is currently only known from a single clone, so it might be described as being exceedingly rare. Indeed, I would describe this species as the rarest *Aloe* in my collection. Clearly further exploration of the Baynes Mountains is required to assess the status of *A. huntleyana* in habitat.

Twenty-four species of true aloe occur in Namibia of which six are cremnophytes: *A. corallina*, *A. dewinteri*, *A. huntleyana*, *A. meyeri*, *A. omavandae* and *A. pavelkae* (Klopper, 2015). *Aloe huntleyana* is distinguished from the other five species by its much branched, shrubby habit – indeed, it is the only shrubby Namibian aloe. In addition, Namibia is home to three species each of *Aloidendron* and *Gonialoe*.

Aloe huntleyana commemorates Brian Huntley, former director of the National Botanical Institute (NBI) based at Kirstenbosch Botanic Gardens, who retired in 2006 after 20 years' service with the NBI. *Brianhuntleya*, a monotypic genus of mesembs, is also named in his honour (Van Jaarsveld & Condy, 2015).

In cultivation

The plant grew well at Kirstenbosch. In cultivation it is fast-growing with subterranean suckers. Branches droop over the pot (or cliffs in the wild) and grow up to 1 m long. My first encounter with *A. huntleyana* was in 2009 when I visited the Botanical Society Conservatory at Kirstenbosch Botanic Garden where the plant was growing on a balcony but was then still considered to be *A. catengiana* (fig. 1).

I was given a small cutting which rooted quickly and grew well. I find such cremnophytes tricky to accommodate in pots and this one began its life with me in a small hanging pot. It subsequently grew fast in my care and was repotted a couple of times. It was eventually grown in a tall pot to mimic its cliff-dwelling habitat and it formed a large plant with sprawling woody stems about 1 cm

across and up to 1 m long, branching freely but only from the base (fig. 2). Notice that most of the stems retain leaves virtually to their bases and terminal rosettes are not formed. Unfortunately, and initially unbeknown to me, the heating in the Open University greenhouse where this plant was housed failed in the winter of 2015 and my large plant of *A. huntleyana* was one of only a few plants that died during this period. Luckily, I had removed two cuttings, so the plant is still with me. The largest of these two plants is shown in fig. 3. The single stem is about 35 cm long and shows the characteristic slight zig-zag orientation of the stem internodes. The leaves are up to 25 cm long, 3 cm wide just above the base, greyish-green, recurved, upper surface flat to concave, with just the occasional spot, whereas the lower surface is convex and well spotted



Fig. 1. *Aloe huntleyana* growing on the balcony of the Botanical Society Conservatory at Kirstenbosch Botanic Garden.

with circular to oval cream spots. Leaf bases are distinctly amplexicaul (hugging the stem) and are prominently striate (marked with fine lines). The leaf margins have prominent sharp yellowish-green teeth up to 4 mm long and up to 8 mm apart.

Despite being a fast-grower, in the decade that I have grown this plant it has just flowered for the first time in December 2019 to January 2020 (figs. 3 to 5). The inflorescence is short and unbranched, only 18 cm long, distinctly arcuate (shallow U-shaped) (fig. 4) with a dense raceme just 6 cm long. Note though that Van Jaarsveld & Swanepoel (2012) record that the inflorescence can be either unbranched (simple) or can have up to three branches. Flowers are up to 28 mm long, salmon-pink becoming whitish-yellow at the mouth (fig. 5).



Fig. 2. *Aloe huntleyana* in a 34 cm diameter × 50 cm tall pot.

Note that in contrast to my limited experience of flowering this species in cultivation in the UK where it seems to be a winter-flowerer, in South Africa *A. huntleyana* flowers mainly in the autumn (April to June) (Van Jaarsveld & Swanepoel, 2012). At Kirstenbosch the plant flowered freely and first flowers were produced in only its second year in cultivation (Van Jaarsveld & Condy, 2015).

All photos shown here (figs. 1 to 5) illustrate the type plant: Van Jaarsveld, Swanepoel & Steven Carr 18805 (Van Jaarsveld & Swanepoel, 2012).



Fig. 3. Smaller plant of *A. huntleyana* in flower in a 15 cm diameter × 23 cm tall pot.



Fig. 4. *Aloe huntleyana* in flower.

Relationships

As mentioned above, when first discovered, the plant was thought to belong to *A. catengiana*. Both species are indeed closely related and belong to a group of shrubby sprawling species including *A. gossweileri*, *A. palmiformis*, *A. scorpioides* and *A. vallis*, all of which, apart from *A. huntleyana*, are endemic to Angola. The closest relative to *A. huntleyana* appears to be *A. vallis*, from which it differs by its larger size, internodes up to 2 cm apart and its shorter and denser racemes. Another significant difference between these two species is that the leaves of *A. vallis* are shed from the stem bases and distinct terminal leaf rosettes are formed (Van Jaarsveld & Condy, 2015). Van Jaarsveld & Swanepoel (2012) include a table which compares the features of all six species in greater detail. *Aloe catengiana* seems to be the largest growing of them all, forming shrubs 3 m or more across. At the other end of the scale, *A. scorpioides* and *A. vallis* only grow up to 50 cm tall. So, from a size perspective



Fig. 5. Close-up of the inflorescence of *A. huntleyana*.

A. huntleyana is in the middle of this range.

It will be interesting to discover whether *A. huntleyana* is truly a Namibian endemic or whether this species, like its close relatives, also occurs in Angola. It should also be noted that since *A. huntleyana* is known only from a single clone, we currently know nothing about the natural variation within this species.

Finally I would like to record that as a consequence of the initial confusion between the new discovery and *A. catengiana* mentioned above, the photos of *A. huntleyana* in Carter *et al.* (2011, p.634) included as *A. catengiana* in fact illustrate *A. huntleyana*. Additionally, the text is now known to be wrong: *A. catengiana* does not occur in Namibia but instead is an Angolan endemic. In our defence, *A. huntleyana* was published as a new species the year after our book appeared in print.

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