Aloe fibrosa – a shrubby East African species

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History, habitat, distribution and relationships

Aloe fibrosa Lavranos & L.E. Newton was first collected by Philip Archer around 1960 on the Mua Hills in the Machakos District, east-southeast of Nairobi, Kenya. A later collection was made by Jan Gillett further south on Kilima Kiu growing in shallow sandy soil and among rocks. These two collections were used as the basis for the description of the new species (Lavranos & Newton, 1976). It was also later recorded from northern Tanzania (Carter, 1994; Newton, 2020). This species was named '*fibrosa*' for the leaf fibres which are rare in the genus (fig 1).

Aloe fibrosa belongs to a group of shrubby species from tropical East Africa. Cutler *et al.* (1980) undertook a multidisciplinary study of 12 East African shrubby species involving morphological, anatomical, cytological and biochemical aspects of their evolution. In terms of their chromosome counts, half of the East African shrubby species were somewhat unusual in being tetraploid (2n = 28), which is an extremely rare count in this large genus of over 500 species. However, *A. fibrosa* is more typical with a chromosome count of 2n = 14. Three species in this study were identified as having fibrous leaf bases: *A. babatiensis, A. fibros*a and *A. morijensis*, with the closest relative of *A. fibros*a identified as being *A. morijensis*. (This study is summarised in Carter *et al.,* 2011, pp. 93–4 and mapped as figure 79.)

In a recent extensive molecular study of *Aloe* (Grace *et al.*, 2015), *A. fibrosa* was shown to belong to a group of 24 species from the horn of Africa and East Africa. However, its closest relative was shown to be the shrubby, non-fibrous leaved species *A. ngongensis* whereas in contrast it was shown to be far more distantly related to *A. morijensis*.

Aloe fibrosa differs from *A. babatiensis* in its taller, less shrubby habit but above all in its much tougher fibrous leaves. *Aloe morijensis* is altogether a much smaller-growing plant, always with prominently spotted and much less fibrous leaves. *Aloe ngongensis* is shorter-growing but with much larger leaves up to 60 cm long and 10 cm across which are non-fibrous; its inflorescence is in contrast well-branched and the flowers are bright glossy scarlet. This latter species, therefore, seems unlikely to be the closest relative of *A. fibrosa*.

Fig 1. Leaves of *A. fibrosa* showing the leaf fibres.

Aloe fibrosa in cultivation

My plant came from the late Roy Mottram in December 2007 and so it has been in my collection for 15 years. It has the collection number *Newton 1710,* collected by Len Newton at Kilima Kiu, Kenya in September 1975. It has grown reasonably vigorously, has been propagated several times and has flowered regularly, so it is a rewarding, easily-grown plant. It forms stems up to 2.5 m tall and up to 3 cm across at the base, but it is most attractive as a small specimen (fig 2) since with age it gets lanky and hence requires support. It branches moderately from the base so branches can be readily removed and rooted. The leaves sheath at the base (fig 3) where most of the fibres are concentrated (fig 1). Leaves are lanceolate, slightly recurved at the tips, up to 20 cm long and 5 cm across at the widest point above the base in my plants, although they can grow larger than this (up to 30 cm long) in other clones. They are smooth and bright green but go reddish when grown in full sun. The lower surface is striate and always unspotted (immaculate) in the clone I grow but spotted leaves are recorded in other clones. The margins are armed with sharp teeth up to 3 mm long.

Fig 2. A young plant of *A. fibrosa* 35 cm tall in a 12 cm diameter pot.

The inflorescence (figs 4 & 5) of the latest plant to flower is 45 cm tall but it has been recorded as growing up to 1 m tall. This is simple and unbranched although branching has been recorded which I suspect is an unusual occurrence. The flowers are loosely arranged and are typical of aloes, being cylindrical, up to 35 mm long, pale orange-red with pale yellow margins.

Overall plants of this species have been very easy to grow and have proved to be relatively tough compared to many other aloes. One large branched plant with a main stem about 1.2 m tall has survived when kept dry throughout the winter in a greenhouse maintained just above freezing. In the spring when watering recommenced the plant resumed growth fairly quickly. So, this species comes highly recommended as a robust architectural plant.

Acknowledgements

I thank the late Roy Mottram for material with data of the Len Newton collection. My wife Marjorie read and commented on an earlier draft of this article.

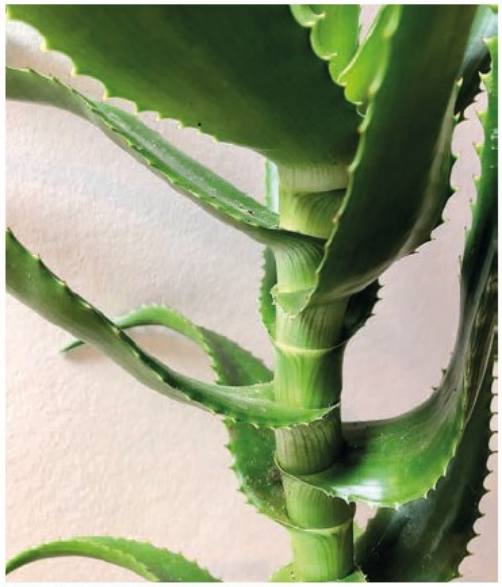

Fig 3. Details of the leaves of *A. fibrosa*.

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Fig 4. Flowering plant of *A. fibrosa* 80 cm tall in an 18 cm diameter pot.

Fig 5. Close up of the inflorescence of *A. fibrosa*.