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A new species of *Aloe* from Southwest Ethiopia

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Summary. A new species of *Aloe*, *A. friisii* Sebsebe & M. G. Gilbert, is described from Gamo Gofa Region, southwest Ethiopia.

INTRODUCTION

The aloes of Ethiopia, Somalia and Tropical East Africa are covered by recent floristic accounts (Carter 1994; Lavranos 1995; Sebsebe & Gilbert 1997). In 1996, whilst the *Flora of Ethiopia and Eritrea* was still in press, the first author, together with Ensermu Kelbessa, encountered sterile plants of a small aloe that could not be placed. These were growing in deciduous woodland dominated by *Combretum* and *Terminalia*, under a thicket of *Euclea schimperi* (A. DC.) Dandy and *Acacia hockii* De Wild. Living material taken back to Addis Abeba has survived but has not yet flowered. Recently (1998) I. Friis (Copenhagen) and S. Bidgood (Kew) collected flowering material of what is clearly the same taxon, but a little further to the south. This showed that the plants belonged to a new species which is described here as *Aloe friisii*.

Aloe friisii *Sebsebe & M. G. Gilbert*, **sp. nov.** *Aloe kulalensis* L. E. Newton & Beentje et *A. vituensis* Baker similis sed inflorescentiis ramis plus numerosis (ramis ad 13, plerumque ramos secondarios ferentibus, non inflorescentiis simplicibus vel ramos ad 4 ferentibus), perianthiis luteis (non aurantiacis vel pallide corallinis) manifeste differt; ab *Aloe kulalensis* caulibus usque 3, 10 – 20 cm longis (non pluribus, usque 200 cm longis), bracteis ovatis, 2 – 5 × 1 – 3 mm (non anguste ellipticis, 3 – 7 × c. 1 mm) differt; ab *A. vituensis* foliis obscure maculatis dentibus marginalibus 1 – 2 mm longis (non manifeste maculatis dentibus marginalibus 3 – 4 mm longis), perianthiis latioribus (7 – 10 mm, non c. 6 mm latis) praeterea differt. Typus: Ethiopia, Gamo Gofa Region at the Kaske R. (4°50'N 36°41'E), 600 m, 9 Jan. 1998, *Friis, Bidgood, Malaku & Gashaw* 8931 (holotypus ETH; isotypi C, K)

Erect or sprawling shrublet, unbranched or forming small clumps of up to 3 stems; stems to 20 cm long, 2 – 4 cm thick. Leaves narrowly elliptic, 25 – 35 × 3.5 – 5 cm, pale green with sparse whitish spots, these sometimes rather obscure; marginal teeth 2 – 8 mm apart, 1 – 2 mm long, whitish, sometimes with brownish tips.

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Inflorescence ascending, 50 – 75 cm high, with 8 – 13 branches, lowermost with short secondary branches. Racemes 3 – 14 cm long, lax (2 to 3 flowers per cm). Bracts ovate, 2 – 5 × 1 – 3 mm, scarious, apex acuminate, veins usually 3, reddish-brown. Pedicels 8 – 12 mm. Perianth ± cylindrical, widest near base, 22 – 25 × 7 – 10 mm when dried, yellow with darker longitudinal veins; outer lobes free for 1/3 of their length. Stamens and style not exserted. Capsule not seen. Plate 1.

ECOLOGY. On rocky slope in *Acacia horrida* bushland; under *Euclea schimperi* and *Acacia hockii* thickets in *Acacia-Combretum-Terminalia* woodland; 600 – 1600 m.

DISTRIBUTION. Ethiopia: Gamo-Gofa Region (GG), not known elsewhere.

ETHIOPIA. Gamo Gofa Region at the Kaske R. (4°50'N 36°41'E), 600 m, 9 Jan. 1998, *Friis, Bidgood, Malaku & Gashaw* 8931 (holotype ETH; isotypes C, K); 8 km off the main road from Arba Minch to Gidole towards Zeise Mt, 1600 m, 23 Dec. 1996 (sterile), *Sebsebe & Ensermu* 5345 (ETH).

The relatively small rosettes of narrow leaves and slender, sometimes trailing, stems and lax inflorescences of relatively broad flowers tapering slightly from a broad base suggest a possible relationship to the rather ill-defined and probably artificial group of chasmophytic species (group 10 of Reynolds 1966). A number of more recently described northern species of similar habit have been linked to this group, but it may be artificial, and needs more detailed study. The new species differs from most of the other members of this complex and possible allies such as *Aloe vituensis* in the paniculate inflorescence of yellow flowers. The type species of the complex, *Aloe veseyi* Reynolds from Zimbabwe, does have a branched inflorescence of yellow flowers but is very different in habit. The leaves are very distinctively falcately decurved, and all parts of the plant except for the racemes are pendent. Most other taxa have scarcely branched inflorescences of red or pink flowers although yellow flowers are sometimes produced by *Aloe confusa* and *A. pendens*, and the type species of the group, *A. veseyi*, always has yellow flowers. The most closely related species in this complex seems to be *Aloe kulalensis* L. E. Newton & Beentje from northern Kenya but that species forms large clumps of trailing stems to 2 m long, in contrast to the much smaller Ethiopian species which has only up to 3 stems, not exceeding 20 cm in length, in each clump. Apart from the inflorescence characters already mentioned, *A. kulalensis* has inflorescences with up to 4 branches only and orange-red perianths, and the bracts are much narrower, at least three times as long as broad, rather than around twice as long as broad in the new species. The other Ethiopian member of this complex, *A. tewoldei* M. G. Gilbert & Sebsebe, has much narrower leaves, not more than 2.2 cm wide and completely unmarked, with marginal teeth c. 0.5 mm long, and an unbranched inflorescence of greyish orange flowers with green tips. The habit and habitat of the original sterile collection of *A. friisii* were very reminiscent of *A. vituensis* Baker, but that species has much more clearly spotted leaves with marginal teeth 3 – 4 mm long and an unbranched inflorescence with much larger bracts, 6.5 – 7 × 4 mm, and slightly clavate, coral-pink perianths. The Somali species *A. hildebrandtii* Baker has a similar habitat and can also have yellow flowers but has longer stems, 50 – 100 cm long, leaves with marginal teeth 2 – 3 mm high and 8 – 10 mm apart, pedicels 10 – 15 mm long and a larger perianth 26 – 30 mm long, often red. Another caulescent species

PLATE 1. *Aloe friisii*. **A** habit; **B** single shoot with inflorescence; **C** part of inflorescence. Photographed at the type locality (Kaske River, 4°50'N, 36°41'E) on 9 Jan. 1998 by *Ib Friis*.

with similar leaves and a branched inflorescence is *A. yavellana*, also from southern Ethiopia, not far to the east. This has similar, relatively slender stems but the leaves are laxly spaced along the better-developed stems and it has smaller scarlet to orange flowers. The relationships of many of these species are mostly rather obscure and in need of more detailed investigation.

In the key to species in the *Flora of Ethiopia and Eritrea* (Sebsebe & Gilbert 1997), *A. friisii* keys out (with only a minor problem at couplet 33) to couplet 40 as *A. yavellana*. It can be incorporated easily by a minor modification of couplet 33 and the insertion of a new couplet as follows:

33. Leaves up to 2.2 cm wide, linear; inflorescence a simple unbranched raceme · **34**
    Leaves 3.5 cm or more wide, never linear; inflorescence usually much branched · **35**
40. Stems stout, 5 cm or more wide; perianth 23 – 28 mm long · · · · · · · · · · · **41**
    Stems slender, 3 – 4 cm thick; perianth 20 – 25 mm long · · · · · · · · · · **40bis**
40bis. Leaves in a dense rosette, 3.5 – 5 cm wide, marginal teeth 1 – 2 mm high; perianth 7 – 10 mm wide, yellow · **37A. A. friisii**
    Leaves ± spaced along stem, 5 – 7 cm wide, marginal teeth c. 3 mm high; perianth 4 – 6 mm wide, dull scarlet to orange · · · · · · · · **35. A. yavellana**

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