

## THE GENUS ALOE IN WEST AFRICA

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It is curious to see the old name *Aloe barteri* appearing again in our journal (Okafor, 2010). It first appeared here over 50 years ago (Keay, 1957) but a few years later it disappeared into synonymy.

The first edition of the *Flora of West Tropical Africa* (Hutchinson & Dalziel, 1936) includes *Aloe barteri* as the only West African species in this genus. The name was published in 1880 by Kew botanist John G. Baker, based on a plant that had been collected in Nigeria by Charles Barter, a British gardener who participated in W. Baikie's second Niger Expedition (Baker, 1880).

A British forestry officer in Nigeria, Ronald W. J. Keay, realised that the aloes he had seen in Nigeria represented more than one species, and he made a study of them. He concluded that the type specimen of *Aloe barteri* is a mixture, consisting of a leaf of one species and an inflorescence of another. He identified the leaf as *Aloe schweinfurthii*, also published by Baker in 1880 for material collected in Sudan by German botanist Georg A. Schweinfurth.



Fig. 1. *Aloe buettneri*, in grassland in Togo



Fig. 2. *Aloe xkeayi*, in disturbed grassland on the Accra Planin, Ghana



Fig. 3. *Aloe macrocarpa*, on the Jos Plateau, Nigeria

The inflorescence he identified as *Aloe buettneri*, described in 1905 by the German landscape gardener and botanist Alwin Berger, based on a specimen collected in Togo by Oskar A. R. Büttner, a German botanist who was head of a research station in Togo. Thus Baker's *Aloe barteri* became a synonym, *pro parte*, of *A. buettneri* and *A. schweinfurthii* (Keay, 1963).

Another species was also found in Nigeria by Keay, and this he identified as *Aloe macrocarpa* *Todaro* var. *major* A. Berger. *Aloe macrocarpa* had been described by Italian botanist Agostino Todaro from a specimen collected in Ethiopia by German botanist Georg H. W. Schimper (Todaro, 1875). The West African variety was distinguished by its slightly larger flowers and fruits (Berger, 1908).

During his travels in West Africa, Keay found yet another distinctive plant in Ghana. This was shown to Gilbert W. Reynolds, who was travelling around Africa studying the genus, and he described it as a new species, *Aloe keayi* (Reynolds, 1963).

Thus, four taxa are recognised in the second edition of the *Flora of West Tropical Africa* (Keay, 1968). Some other names that had been published for West African aloes were absorbed into synonymy, but the accepted species were as shown below:

- Aloe buettneri A. Berger (1905)
- Aloe keayi Reynolds (1963)
- Aloe macrocarpa Todaro var. major A. Berger, (1908)
- Aloe schweinfurthii Baker (1880)



Fig. 4. *Aloe schweinfurthii*, on a rocky hill in Benin Republic

However, a later investigation of *Aloe keayi* revealed that it is a natural hybrid between *A. buettneri* and *A. schweinfurthii* (Newton, 1976). It is now known as *Aloe* ×*keayi* Reynolds (pro sp.). The hybrid had been brought into cultivation as an ornamental plant, and so the cultivar name *A. ×keayi* 'Akosua' was published (Newton, 1977). Also, the variety major of *A. macrocarpa* is not recognised as distinct in the latest account of the genus (Carter et al., 2011).

Keay (1968) also mentions that the medicinal plant *Aloe barbadensis* Miller is cultivated in Sierra Leone and West Cameroun. This is an ancient cultivar that is believed to have originated in the Arabian Peninsula (though it is not known to occur there in the wild today) and has spread around the tropics and sub-tropics during more than 2,000 years. The correct

name is now *Aloe vera* (L.) Burm. f. (Newton, 1979). It is now widely cultivated and is the basis of a large-scale industry in medicinal and cosmetic products.

Family relationships have also changed in time, especially as a result of DNA studies, and the aloes are no longer classified in the family Liliaceae. They have been variously placed in the Aloaceae or the Asphodelaceae, but according to the latest scheme they belong in the Xanthorrhoeaceae (APG, 2009).

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