

## Brachylaena huillensis

muhuhu, muhugu

### LOCAL NAMES

Afrikaans (laeveldvaalbos); English (silver oak, low veld silver oak, low veld brachyleana); Swahili (mvumo, muhuhu, muhugu, mkarambati, mkalambaki); Trade name (muhuhu, muhugu)

### BOTANIC DESCRIPTION

*Brachylaena huillensis* grows to 35 m tall with a dbh of 85 cm under favourable conditions; fluted and often curved bole, which makes it difficult to obtain large dimensions of timber; bark grey, smooth or rough with longitudinal cracks.

Leaves entire or dentate, oblanceolate, up to 13 cm long and to 2.5 cm wide, grey felty beneath; apex acute; base long cuneate; petiole 1.2 cm long.

Capitula small, white, cylindrical, up to 2.5 cm long, in axillary woolly panicles; male capitula shortly pedicellate, with about 12 flowers; female capitula subsessile, with about 5 flowers; pappus in 1 row of scabrid bristles; flower heads white, in small terminal panicles or racemes; flowers tubular or discoid.

Fruit a small, winged achene in a white capitulum.

On the flowers, the bracts surrounding the discs are shorter than the flowers and are the basis of the generic name, which is based on Greek words meaning 'short' and 'cloak'. The specific name means 'of Huilla', a place in Angola.

### BIOLOGY

*B. huillensis* is a dioecious plant. The male has 2-3 times as many capitula as the female in each branch of the inflorescence. The flowers are small, and dissection of newly opened flowers and buds just about to open reveals no nectar. Flowering coincides with the rainy seasons. In Kenya, *B. huillensis* flowers twice a year, between mid-April and the end of June and between mid-November and early January. The flowers develop slowly for the next 2-3 months until the next rainy season. Opening is delayed until the rains come, and should they fail, all the buds shrivel and the next season's buds start to appear. Male flowers almost always open earlier than female one. Bees collect and feed on pollen, which is possibly the main attraction of these flowers. Other pollinators include small flies such as *Aprostocetus* spp., *Eupelmus* spp., *Mesopolopus* spp., *Pteromalus* spp. and *Trupanea albicans*. The period available for fertilization is brief, and the development and maturation of the fruit is very rapid. About 10-20% of the seeds are sound at dispersal.

O. Hoffm.

Asteraceae



carved likeness of Mutsya Munge, the founding father of the Kenyan woodcarving industry, which began in 1919 at Wamunyu, Machakos District. (Walters M.)



Illegally-logged *Brachylaena huillensis* timber confiscated at Arabuko-Sokoke Forest reserve. (Walters M.)



Malindi Woodcarving Co-operative is a society of more than 500 trained and highly skilled wood carvers. (Walter M)

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### ECOLOGY

In Kenya, *B. huillensis* is common in semi-deciduous tropical forests of the central highlands and the lowland dry coastal belts. It is also found in the northern forests of Tanzania.

### BIOPHYSICAL LIMITS

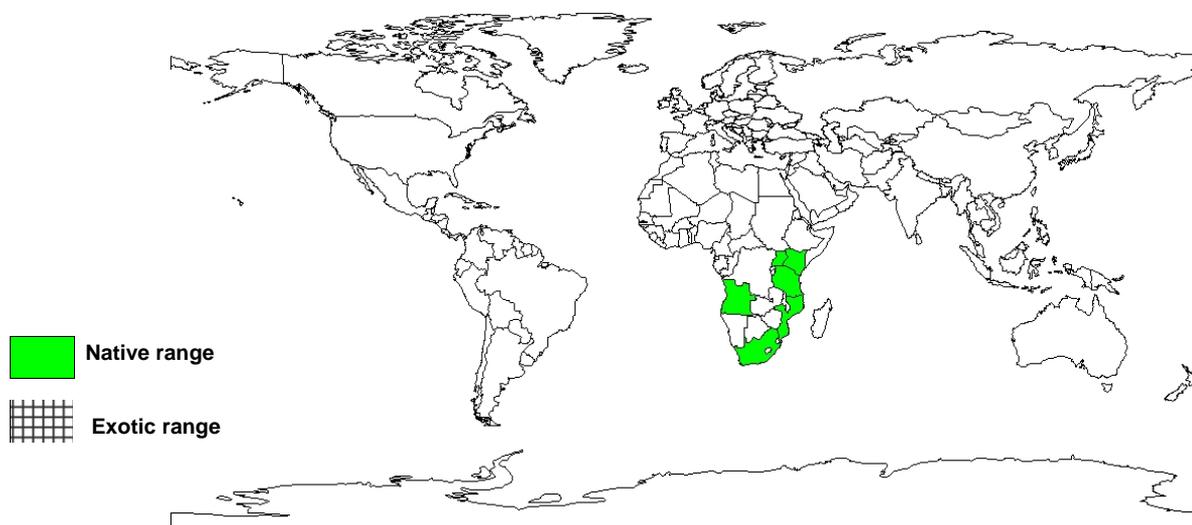
Altitude: 150-2000 m, Mean annual rainfall: 900-1200 mm

Soil type: Prefers deep, well developed, red, volcanic clayey loams in plateau forests and red soils in the coastal belts.

### DOCUMENTED SPECIES DISTRIBUTION

Native: Angola, Kenya, Mozambique, South Africa, Tanzania, Uganda

Exotic:



The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.

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### **PRODUCTS**

**Fuel:** During the 1st 2 decades of the 19th century, *B. huillensis* was the main fuel for Kenya. It was also exported as short logs to India as an inferior substitute for sandalwood for use in cremations. It is suitable for charcoal because of its high density, and is exploited for this in Kenya.

**Timber:** The wood is pale yellow to pale brown, with characteristic storeyed structure, scented somewhat like sandalwood, straight grained with conspicuous growth rings; texture is very fine, even, strong and stiff. But its failure in bending is sudden and complete. It is hard to work but does turn and work well with sharp tools. It takes a high polish but splits easily along the grain. It is used in flooring, furniture and joinery. In Kenya, it is a favourite wood for carving artefacts.

**Essential oil:** Oil distilled from the wood has a pleasant, vetiver-like perfume.

### **SERVICES**

**Boundary or barrier or support:** Due to its durability, *B. huillensis* is used as fence posts, for example in northern Tanzanian along the border with Kenya, where it is overexploited.

**Ornamental:** *B. huillensis* is planted as an ornamental tree around dwellings in Kenya.

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### **TREE MANAGEMENT**

The trees are easy to raise in plantations. On average, growth increment is fast on good soils.

### **GERMPLASM MANAGEMENT**

Seed storage behaviour is uncertain; viability is lost within 6 months in open storage at room temperature. There are 333 000-500 000 seeds/kg.

### **PESTS AND DISEASES**

*B. huillensis* is notable for its high durability in the soil and resistance to fungal and insect attack. For example, it is resistant to the marine borer or shipworm, *Teredo navalis*.

**FURTHER READING**

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**SUGGESTED CITATION**

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