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Combretum micranthum G. Don

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MILLENNIUM SEED BANK PROJECT Kew

DARWIN INITIATIVE

Combretum micranthum G. Don

Taxonomy and nomenclature

Family: Combretaceae

Synonyms: *Combretum altum* Perr., *C. floribundum* Engl. & Diels, *C. raimbaultii* Heck.

Vernacular/common names: Kinkeliba (French); bulusor, butek, bute kabo, talli, tallika (Fula); butek (Jola); baro, kinkelliba, kou lomkalan (Mandinka); lake (Maninka); kesu, seheou, segweyu and sexeo (Wolof).

Related species of interest: Its foliage is similar to that of *Combretum nioroense*, whose leaves remain green when drying before they are shed and whose fruit is yellow when ripe.

Distribution and habitat

Combretum micranthum is native to western Africa, distributed from Senegal and Mauritania to Nigeria and Niger. It is a savannah plant, found on dry sites, sandstone, clay, laterite, crystalline rocks, and skeletal soils. It is frequently found on termite nests, even though the roots are very susceptible to termite attack and is an indicator of poor, low nutrient soils. It grows where annual rainfall is between 300 and 1500 mm, and at altitudes from sea level to 1000 m. It is commonly gregarious and locally abundant, and is often found in pure, dense stands.

Uses

The curative leaves are used to make the 'quinquelibas drink', a refreshing tea traded as 'kinkéliba'. The seeds are edible and the leaves are used as fodder for small ruminants.

The timber is used like a rattan, for roof frames, for huts and lofts, basket manufacture, furniture and walking sticks. The wood is also used for fuelwood and charcoal. The inner bark fibres are used for binding and ropes. Leaves, roots and barks have many medicinal usages (antipyretic, tonic, diuretic, antidiarrhoeal and choleretic). It is used for the treatment of wounds, fever, stiffness, syphilis, sterility, bruises, sprains, jaundice, hepatitis, haematuria, anorexia, colic, blennorrhoea, colds and bronchitis. Leaf extracts have been found to exhibit anti-viral and anti-inflammatory properties. It is commonly used in Burkina and Cote d'Ivoire by native healers for the treatment of malaria; in vitro research has shown that it exhibits strong anti-malarial properties.

Botanical description

A small tree, shrub or liana of 4 m high (attaining up to 10 m under favourable conditions). It may reach a height/length of 20 m by twining around the branches of nearby trees. The bark is grey and fibrous, with orange to brown-red slash, and hairy and scaly red-brown stems. The branches are reddish brown, and the whole plant (inflorescence axes, flowers, fruits, young shoots and petioles) is densely covered with red scales. Leaves are alternate, shining light green when young; typically rust coloured when mature, in the dry season. The leaf shape is variable, oblong-elliptic, 5-10 cm long and 2.5-5 cm wide. Young leaves are covered with russet scales beneath.

The inflorescence is a spike-like axillary raceme, 3-5 cm long, with a scaly peduncle. The flowers are densely arranged on the spikes, which are usually solitary in the leaf-axils.

The small whitish flowers are 2 mm in diameter, the calyx is covered with rust-coloured scales, and the corolla is 4-petalled.

Combretum micranthum. From: Berhaut, J. Flore Illustrée du Sénégal, Direction des Eaux et Forêts Government du Sénégal, 1975.

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Flowering and fruiting habit

Flowering and fruiting occur during the second half of the dry season, and into the wet season, usually before the first leaves appear, or as the leaves open. The optimum month of harvest is November to December in Burkina Faso.

Fruit and seed description

Fruit: The fruit is a 12-15 mm long, 4-winged scaly, ferruginous samara. It is reddish-brown when ripe.
Seed: 5-8 mm long oblong, with folded cotyledons, no endosperm and thin, reddish scaly seed coat.

PHOTO: H. VAUTIER

Seeds of *C. micranthum*, including a longitudinal cut showing the rolled cotyledons

Harvest and processing

Harvest from trees by shaking fruit bearing branches. Seeds are usually not extracted before sowing as extracted seeds are more fragile and prone to damage.

Storage and viability

Seeds of this species exhibit 'Orthodox' storage behaviour. This species has been stored in long-term storage conditions at RBG Kew, WP, since 1990. Collections x-rayed at the MSBP showed 90-100% viability. The dried seeds survived 4 years storage at 4°C at CNSF, and germinated >96%.

Dormancy and pretreatment

Soaking seeds in tap water for 24 h increased the rate of germination. Removing the covering structures from the seed can also improve the level of germination.

Sowing and germination

Germination results from seeds that were sown on 1% agar, with a 12/12 hour photoperiod (MSBP) are shown below.

Pretreatment	Temp (°C)	Germination(%)
None	25	90
None	33/19	100
Covers removed	26	96

Selected readings

Arbonnier, M. 2004. Trees, shrubs and lianas of West African dry zones. CIRAD, Montpellier; Museum national d'histoire naturelle, Paris.

Ferrea, G., Canessa, A., Sampietro, F., Cruciani, M., Romussi, G. & Bassetti, D. 1993. In vitro activity of a *Combretum micranthum* extract against herpes simplex virus types 1 and 2. Antiviral Research, 21 (4), pp. 317-325.

Seed Information Database (SID). 2004. http://www.rbgkew.org.uk/data/sid (release 6.0, October 2004).

Kola, K.A. & Benjamin, A.E. 2002. Comparative Antimicrobial Activities of the Leaves of *Combretum micranthum* and *C. racemosum*. Global Journal of Medical Sciences, 1 (1), pp. 13-17.

Shepherd, G. 1992. Managing Africa's Tropical Dry Forests. Overseas Development Institute, London.

Steentoft, M. 1988. Flowering plants in West Africa. Cambridge University Press, Cambridge.

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