Allanblackia ulugurensis

Engl.

Clusiaceae

LOCAL NAMES
English (mkanyi fat,kagne butter); Swahili (msambu,mkani)

BOTANIC DESCRIPTION
Allanblackia ulugurensis is a medium to large evergreen forest tree to 30 m tall, with a straight and slightly buttressed bole. The branches are drooping and often conspicuously whorled. The bark is red-brown or brownish-grey and when slashed exuding yellow latex.

Leaves simple, opposite, dark green, 7.5-19.5 cm long by 4-11 cm wide; oblong or elliptic elongated, slightly emarginated or rounded at the apex and broadly cuneate at the base; with many pairs of lateral nerves running at a wide angle to the midrib; stalk stout, 0.7-1.4 cm long.

Flower unisexual, dioecious, clustered towards the ends of the drooping branchlets, axillary, fleshy, pedicel short, up to 5cm across when expanded and 1.5cm across in bud form. Sepals 5 unequal overlapping, red-brownish, elliptic or almost rounded with the inner 4-7.5 mm long and 4-6.5 mm wide and the outer nearly round up to 1.2 cm long and wide. Petals 5, rounded about 2cm long. Male flowers reddish pink. Stamen-bundle clavate, about 1-1.5cm long and 0.7-1.2 cm wide, angled pointing towards the centre of the flower. Female flowers stamens reduced to staminodes; ovary ovoid, 1.5 cm long, arranged in 2 rows; with the large 5-lobed stigmas forming a cap over the apex.

Fruit reddish pink but ochraceous when dry, conical-oblong drupe, 10-13.5 cm long and 6.5-8 cm in diameter, hanging at the end of a short stalk.

Seeds irregular in shape, brittle-shelled, 3-3.6cm long by 2.2-2.3cm in diameter, embedded in a gelatinous pulp on one angle.

The generic name ‘Allanblackia’ is after a 19th-century Kew botanist, Allan Black. The specific epithet ‘ulungurensis’ refers to one of the plant’s endemic distribution localities in Tanzania.

There are 9 species in the genus Allanblackia accepted according to Bamps (1969). These are A. ulugurensis Engl., A. stuhlmannii Engl. (endemic to East Africa), A. kisonghi Vermoesen, A. kimbiliensis Spirl (endemic to Congo-Kinshasa). The rest such as Allanblackia floribunda Oliv., A. parviflora A.Chevalier, A. gabonensis (Pellegr.) Bamps, A. marienii Staner, A. stanerana Exell & Mendonca occur in several countries of Central Africa.

BIOLOGY
Flowering occurs in October to January. Fruits start to ripen in December and continue until February. Insects pollinate this species. Rodents and monkeys eat the flowers and fruits, thus dispersing the seeds

Seedling in Kihansi (AFT team)

Sapling at Kihansi forest (AFT team)

ECOLOGY
A. ulungurensis occur in the upper-storey, evergreen forest rain-forest of Ulunguru, Nguru and Ruaha valley associated with other tree species such as Cephalosphaora usambarensis, Ochna holstii, Strombosia scheffleri, Albizia gummifera, Anthocleista zambeziaca, Bombax rhodognaphalon, Newtonia buchanannii, Chrysophyllum albidum, Parinari excelsa, Myrianthus arboreus, Isoberlinia scheffleri and Macaranga kilimandscharica.

BIOPHYSICAL LIMITS
Altitude: 700-2050 m
Mean annual temperature: 12.8-30 deg C.
Mean annual rainfall: 1200-2400 mm.
Soil type: Occur in yellow-red sandy loam soils at higher altitudes and red to yellow-red sandy clay loam soils derived from coarse grained siliceous rocks in lower altitudes especially dominated latosols.

DOCUMENTED SPECIES DISTRIBUTION

Native: Tanzania
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.

PRODUCTS
Food: The seeds yield an edible white fat used in cooking and lighting. The seeds are dried in the sun for several days, pounded into a powder and boiled in water. The fat or oil, which floats on water, is removed for use. The seeds has recently been collected from the natural forests and sold to General Agricultural products Export Company (GAPEX) for export.

Apiculture: It's a bee forage

Dyestuff: The sap produced from the tree yields a yellow dye.

Timber: The timber is suitable for furniture, crates, boxes and beehives.

Medicine: The fat is used against coughs and chest problems.

Lipids: Seeds yield an edible fat used in cooking, soap making and cosmetics

SERVICES
Shade or Shelter: The tree is used for shade and is a suitable amenity planting.

TREE MANAGEMENT
This is a potential plantation species that should be grown in full sun on well-drained soils.

GERMPLASM MANAGEMENT
Ripe fruits are collected from the ground. Seeds are extracted by breaking the fruits and the pulp around the seed cleaned by washing in water. They are dried and stored. The seed storage behaviour is recalcitrant. There seeds weigh about 115 seeds/kg.

FURTHER READNG

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SUGGESTED CITATION

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