

## Tarchonanthus camphoratus

L.

Compositae

### LOCAL NAMES

Afrikaans (vaalbos, kanferbos); English (wild sage wood, wild cotton, wild camphor tree, camphor bush); Swahili (mkalambati); Zulu (amathola)

### BOTANIC DESCRIPTION

*Tarchonanthus camphoratus* is an evergreen shrub or small tree to 9 m tall, usually much-branched with a narrow crown; trunk diameter to 40 cm; bark brown or grey, rough, longitudinally fissured, exfoliating in long strips; young stems densely covered by white felt-like tomentum.

Leaves shortly petiolate; petiole 0.2-1 cm long; blade narrowly to broadly elliptic or oblanceolate, 2-13.5 cm long, 0.4-4.5 cm wide, base cuneate or attenuate, margins entire, apex obtuse or subacute and shortly mucronate, discolourous, green and glabrous except for mid-rib above, felted with dense white or grey tomentum beneath, prominently pinnately veined, strongly camphor-scented when crushed.

Floral heads small, numerous in usually copious terminal compound open paniculoid thyrses leafy in lower part, with smaller bracts in upper part and yellow-brown tomentose when young, shortly pedicellate; involucre campanulate, 2.5-6 mm long; phyllaries 2-6 mm long, tomentose beneath, glabrous above, in male capitula connate in lower 1/2-1/4, in female capitula free. Male florets 12-66, corolla white, tube infundibuliform, 1.8-3.5 mm long with long white hairs, lobes ovate, 0.5-0.8 mm long.

Achenes obovoid in outline, narrowed towards the base and apex, brown, 1.6-4 mm long, 1-ribbed on the other, densely covered in long white cotton-woolly hairs and crowned with persistent corolla.

*Tarchonanthus* is a genus closely related to *Brachylaena*, with two species ranging from Saudi Arabia through East Africa to South Africa.

### BIOLOGY

*T. camphoratus* is dioecious.



*T. camphoratus* leaves. Note the velvety look. (Bob Bailis)



Shrub of *T. camphoratus* (Bob Bailis)



Sexes separate, on different plants. Flowerheads in terminal panicles. Individual flowers creamy-white, grouped into 3-5 flower capitula. Covered in white woolly hairs. (Fouché HJ)

**ECOLOGY**

*T. camphoratus* is a common plant of the savanna biome, dry forest margins or secondary deciduous bushland, woodland and wooded grassland often dominant or co-dominant and commonly associated with *Acacia* spp. and *Adansonia digitata*.

**BIOPHYSICAL LIMITS**

Altitude: 0-2 750 m

Mean annual temperature: 22 deg. C

Mean annual rainfall: 300-1 000 mm

Soil type: Prefers deep soils and can withstand seasonal waterlogging, however, it is commonly found on stony soils.

**DOCUMENTED SPECIES DISTRIBUTION**

Native: Angola, Ethiopia, Kenya, Lesotho, Namibia, Somalia, South Africa, Tanzania, Uganda, Zimbabwe

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: Leaves used to prepare a beverage, smoked as tobacco or inhaled as snuff.

Fodder: Shoot and leaves browsed by cattle. Milled mature branches, 1.25 cm in diameter, of *T. camphoratus* and *Grewia flava* show great promise as cattle fattening feed.

Fuel: Provides high quality fuelwood.

Timber: Used for hut-building, making of general utensils and hunting weaponry e.g. bows and fishing rods, rungs or knobkerries are made from the rootstock. The wood is termite resistant.

Essential oil: The essential oil extracted from leaves is the safest and most effective natural product for protection from mosquitoes, midges and many kinds of biting insects. The product, containing only 0.3% of the active ingredient, is effective for 6-10 hours, therefore guaranteeing protection even for an entire night.

Medicine: Several African tribes use this plant as a treatment for bronchitis and chest ailments, for chilblains, tired legs and sore feet. A tea made of the crushed leaf is taken infused in one cup of boiling water for stomach ailments, asthma, over-anxiety and heartburn. *Tarchonanthus* essential oil has also been found to have excellent cosmetic and dermatological properties specially as soothing, anti-irritation, decongestant remedy for sensitive skins, dermatitis, sunburns, bedsores, etc. The Maasai of Kenya and Tanzania carry leaves of the plant as a deodorant.

**SERVICES**

Erosion control: The camphor bush can be used for dune fixation and prevention of soil erosion by wind and water.

Shade or shelter: It is wind firm and can act as a windbreak for low winds. Its resistance to fire is remarkable, little mortality is seen in *T. camphoratus* even after three burnings, making it ideal for firebreaks.

Reclamation: The camphor tree is drought and fire resistant and can be used to reclaim drylands.

Soil improver: The slow decomposing leaves improve soil fertility.

Ornamental: *T. camphoratus* is a popular indigenous ornamental in South Africa, specially suited for bonsai with its aggressive root system.

Boundary or barrier or support: The wood is used in fencing.

**TREE MANAGEMENT**

*T. camphoratus* has a moderate growth rate, 600-800 mm/year. Coppicing is an important management practice, and *T. camphoratus* coppices readily. It is an invasive colonizer, use of controlled burning and grazing management or arboricides such as 2,4,5-T, picloram and 2,4-D check its spread. Application of a mixture of picloram and 2,4-D after the late long rains from May-July proves superior in managing it, injection is suitable for single-stemmed trees of diameter approximately 5 cm, while stump treatment is employed for plants that can be utilized for charcoal and foliar application is effective depending on the stage of growth. Goat browsing also checks regrowth of *T. camphoratus*.

**GERMPLASM MANAGEMENT**

Seeds germinate within 8 weeks after sowing.

**FURTHER READING**

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**SUGGESTED CITATION**

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