

Olea capensis

olive, mutharagi, mutharage, loliondo

LOCAL NAMES

Afrikaans (ysterhout); English (ironwood olive, ironwood, Elgon olive, East African olive, black ironwood); Swahili (mushargi, loliondo); Trade name (olive, mutharagi, mutharage, loliondo)

BOTANIC DESCRIPTION

Olea capensis is often a bushy shrub or a small to medium sized tree up to 10 m in height, but it may be much larger, occasionally reaching 40 m; occurring in bush, littoral scrub and evergreen forest. Bark: light grey, becoming dark grey and vertically fissured with age; a characteristic blackish gum is exuded from bark wounds.

Leaves lanceolate-oblong to almost circular, 3-10 x 1.5-5 cm, light to dark green and glossy above, rather paler green below, although sometimes almost unicoloured, occasionally purplish-tinged, without hairs or scales; apex broadly tapering to almost rounded; base tapering; margin entire, thickened and often very wavy; petiole often purplish, 0.3-1.7 cm long.

The flowers are small, white or cream, sweetly scented, in many flowered axillary or terminal heads, 3-15 cm long.

Fruit ovoid, fleshy, up to 2 x 1 cm, when ripe they are somewhat succulent purplish drupes.

This species has been divided into 3 subspecies: *ssp. macrocarpa*, fruits oblong to elliptic, up to 2 x 1 cm; flowers in lax heads. *Ssp. capensis*, fruits almost spherical to oblong elliptic, up to 1 cm long; flowers in dense heads and leaves very variable, apex often rounded; branchlets grey to greyish-brown. *Ssp. enervis*, leaves usually broadly elliptic, apex tapering; branchlets grey to whitish.

BIOLOGY

Flowering in profusion apparently takes place only at irregular intervals of up to 7 years in the late dry season. The fruits take about 6 months to ripen.

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Oleaceae



Fruits (Ellis RP)



The inflorescences are compact, terminal heads. (Ellis RP)



A shrub or small tree occurring in coastal bush and forest. (Ellis RP)

Olea capensis

L.

Oleaceae

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ECOLOGY

O. capensis occurs almost throughout Africa south of the Sahara desert from Sudan and Ethiopia to the southern extremity of the continent and west to the Islands of the Gulf of Guinea and to Sierra Leone. A species of situations where temperatures are relatively low and, apart from diurnal fluctuations, fairly constant temperatures throughout the year. In East Africa, the elevations where the tree naturally grows provide these conditions, and further south in the range it occurs at lower elevations but at these latitudes temperatures are also lower. *O. capensis* ssp. *macrocarpa* is well known in its indigenous range of southern Africa.

BIOPHYSICAL LIMITS

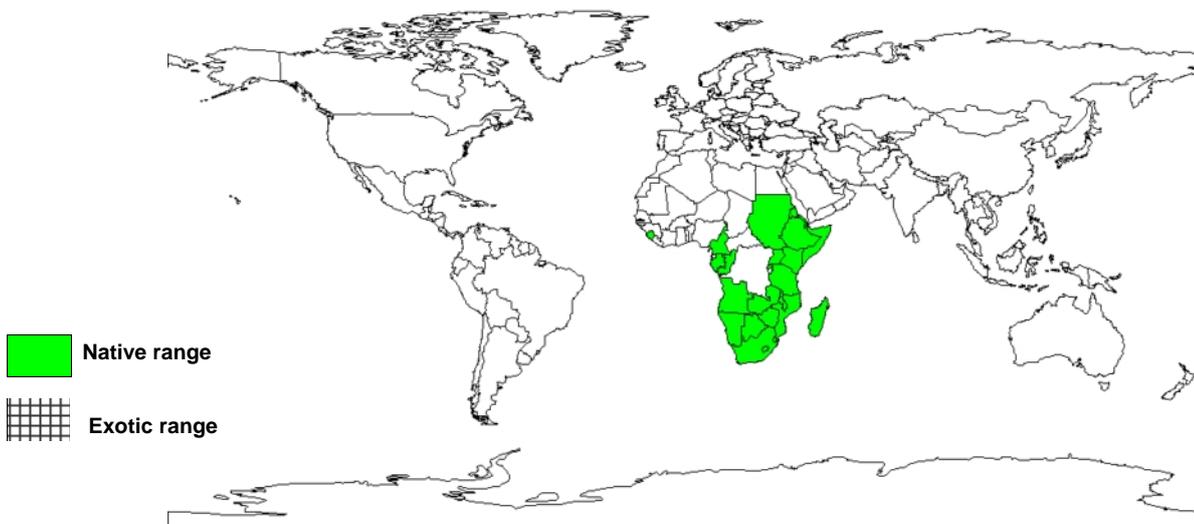
Altitude: 800-2 600 m, Mean annual Rainfall: 800-2 500 mm, Mean annual temperature: 14-18 deg.C

Soil type: Deep, loamy and fertile: drainage should not be impeded.

DOCUMENTED SPECIES DISTRIBUTION

Native: Angola, Botswana, Cameroon, Central African Republic, Congo, Democratic Republic of Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Rwanda, Sao Tome et Principe, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia, 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.

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PRODUCTS

Fodder: *O. capensis* is a useful fodder tree.

Timber: The wood of *ssp. capensis* and *ssp. enervis* is rarely used, but that of *ssp. macrocarpa* makes a fine, high quality timber. It has dark brown heartwood and is attractively figured, fine-grained, hard and heavy and although it is difficult to work it has been widely used in railway sleepers, wagon woods, bridge construction and for flooring blocks. It can also produce beautiful furniture.

Fuel: A viable species for fuelwood from which excellent charcoal can be made.

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TREE MANAGEMENT

Growth is reported fast in young plants but much slower in older ones. Over the first 4 years a mean annual height of 1.1 m has been reported. It is a shade-tolerant, pioneer species and a dominant forest tree. Protected from uncontrolled harvesting in Tanzania.

GERMPLASM MANAGEMENT

Seed storage behaviour appears to be orthodox. Storage of the seed is not advisable without refrigeration facilities: if these are available a low temperature 3 deg. C should be used. There are 3 000-3 300 seeds/kg.

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FURTHER READING

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Coates-Palgrave K. 1988. Trees of southern Africa. C.S. Struik Publishers Cape Town.

Dyer C, Esterhuysen CJ. 1988. Tree of the year, (1988): *Olea capensis*. Department of Environmental Affairs.

Hines DA, Eckman K. 1993. Indigenous multipurpose trees for Tanzania: uses and economic benefits to the people. Cultural survival Canada and Development Services Foundation of Tanzania.

Trees of Village Forestry 1983. Ministry of Natural Resources and Tourism. Division of Forestry, Dar es Salaam.

SUGGESTED CITATION

Orwa C, A Mutua, Kindt R, Jamnadass R, S Anthony. 2009 Agroforestry Database: a tree reference and selection guide version 4.0 (<http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp>)