

Dodonaea angustifolia

L. f.

Sapindaceae

LOCAL NAMES

Afrikaans (sandolyf, sandolien, bosysterhout, ysterhoutbos, gansiebos); English (switch sorrel, sticky hopbush, sand olive, candlewood, giant bush hop); Hindi (pulivavila, jakhmi, aliar, paorki, sanatta); Swahili (mkaa-pwani)

BOTANIC DESCRIPTION

Dodonaea angustifolia is a variable shrub or tree, usually 2-8 m tall; branchlets rusty red and resinous; bark dark grey, fissured and peeling.

Leaves simple lanceolate, pale green, margins untoothed; leaf tip round or pointed; 5-10 cm long, 5-8 mm wide; leaves secrete gummy exudate - thus appearing shiny always.

Flowers inconspicuous, pale green; sepals greenish-yellow, petals absent; stamens brown.

Fruits pale green, sometimes inflated; 3-winged, wings pale brown or coral pink. Seed black, smooth.

The taxonomy of the species has been confusing because of its widespread distribution and similarity to the closely related *D. viscosa*. *Dodonaea* was named after Rambert Dodoaens, a famous 16th century physician and author on plants. The specific epithet means narrow-leaved.

BIOLOGY

The tree is hermaphroditic. Seeds are wind dispersed.



The leaves are narrowly elliptic and shiny light green above; petiole up to 10 mm long. New leaves and young twigs are often sticky and resinous. (Botha R)



Leaves alternately or spirally arranged, simple, narrowly elliptic, resinous and shiny light green. Apex and base tapering. Margin entire. Fruits are greenish-red, roundish capsules, about 2cm in diameter, with 2 or 3 thin, membraneous, papery wings. (Avenant PL)



An evergreen shrub or small tree found in a variety of habitats from arid, semi-desert regions to forest margins in high rainfall areas in South Africa. It is found throughout the tropics of the world. (Fouché HJ)

ECOLOGY

The sand olive is common in scrub, on mountains and rocky soils.

BIOPHYSICAL LIMITS

Altitude: 0-2 800 m

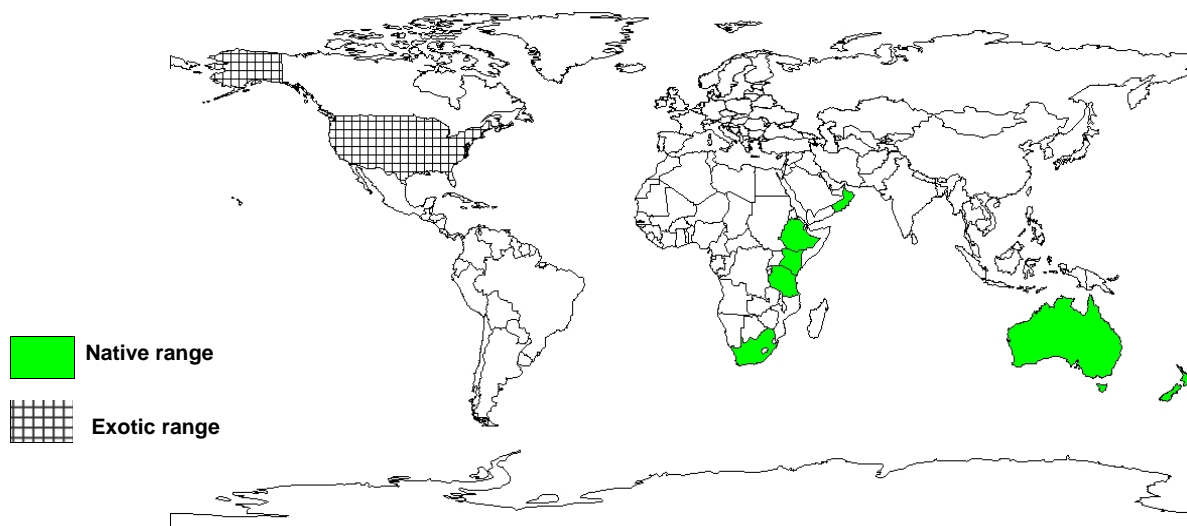
Mean annual rainfall: 450 mm

Soil type: Often on rocky sites or poor soils.

DOCUMENTED SPECIES DISTRIBUTION

Native: Australia, Ethiopia, Kenya, New Zealand, Oman, South Africa, Tanzania

Exotic: US



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

Fodder: The fruits 'hops' can be fed to cattle.

Apiculture: The flowers are ideal bee forage.

Fuel: Sand olive provides good quality charcoal and firewood.

Timber: The wood is hard, termite resistant and heavy, useful for implement handles.

Poison: The foliage has been cited in cases of poisoning when grazed.

Medicine: The root infusion is used as a remedy for common cold in East and South Africa. The leaves have anaesthetic properties and are also chewed for their stimulating effect. Other medicinal uses are for fever, sore throats, chest complaints, influenza, stomach disorders and cancer.

SERVICES

Erosion control: Sand olive roots are soil binding and effective in soil conservation.

Shade or shelter: The plant is a shade provider.

Reclamation: Widely used in arid areas to bind sand or reclaim marshes, an excellent choice for sand dune fixation and erosion control.

Ornamental: Grown as an ornamental for its shiny foliage and decorative pink-red winged fruits. In the United States of America it is considered a decorative pot plant. The sand olive lends itself well for landscape gardening.

Boundary or barrier or support: *D. angustifolia* is a good hedge plant for dry areas, useful in sand or marshy soils. The poles are useful in fencing.

TREE MANAGEMENT

D. angustifolia is a fast growing and hardy shrub. Little or no management is required once it is established. It regenerates rapidly after burning.

GERMPLASM MANAGEMENT

Presowing treatment not necessary. Seeds can be stored for up to one year with germination rates ranging between 30-70%. There are about 100 000 seeds/kg.

PESTS AND DISEASES

The tree is often infested with a white scale insect.

FURTHER READING

Hong TD, Linington S, Ellis RH. 1996. Seed storage behaviour: a compendium. Handbooks for Genebanks: No. 4. IPGRI.

ICRAF. 1991. Multipurpose Trees and Shrubs database. Nairobi, Kenya.

Palmer E, Pitman N. 1972. Trees of Southern Africa Vol. 2. A.A. Balkema Cape Town.

SUGGESTED CITATION

Orwa C, Mutua A , Kindt R , Jamnadass R, Simons A. 2009. Agroforestry Database:a tree reference and selection guide version 4.0 (<http://www.worldagroforestry.org/af/treedb/>)