

Rhamnus prinoides

L'Hérit.

Rhamnaceae

LOCAL NAMES

Afrikaans (hondepishout, blinkblaar); Amharic (gesho); English (shiny leaf, dog wood, dark blinkblaar); Tigrigna (ghesho, gesho); Xhosa (umGlindi); Zulu (umNyenye, umHlinye, umGilindi)

BOTANIC DESCRIPTION

Rhamnus prinoides is a shrub sometimes with the tendency to scramble, or a small, dense, thick, bushy evergreen tree that may reach 9 m in height; usually spineless, with no buttresses; branchlets pubescent when young, glabrous when mature; bark grey to brown, smooth, with conspicuous lenticels, becoming dark brown with age.

Leaves alternate, simple, not deciduous, elliptic to oblong elliptic, 2.5-10 x 1.5-5 cm; young leaves light green, mature leaves very glossy dark green on the top side, dull green on the underside, without hairs; apex rather narrowly tapering; base tapering to rounded; margin finely toothed or scalloped over the upper portion; nerves sunken on top and on the underside, prominently reticulate on top; petiole 3-10 mm long; stipules small, caducous or persistent.

Flowers greenish-yellow, small, pentamerous, inconspicuous, on slender stalks, in sparse axillary groups or clusters of 2-10, in the axils of the leaves; petals greenish; pedicels up to 1.9 cm long; ovary 3-4 celled.

Fruits are berrylike (drupe), ovoid to almost circular, about 5 mm in diameter, shiny red becoming dark red when mature, sometimes almost black, usually clearly divided into 3 compartments, with a small saucer-shaped calyx, 3-seeded; stalk thin.

The generic name 'Rhamnus' is a Greek word meaning a 'tuft of branches', and the specific name 'prinoides' means 'resembling prinus', which is an evergreen oak. This species seems to be related to a number of Indian species, including *R. arnottianus*.

BIOLOGY

Flowering period in southern Africa is between October and December, and fruiting occurs from January to March. Flowers are popular with bees, which probably pollinate them. Fowls eat the fruit and most likely disperse the seeds.



Dogwood leaves showing dark green and very shiny upper surface. Leaf stalks subtended by two, long, narrow stipules. Cultivated as a garden shrub. (Van Staden JM)



Small inconspicuous greenish flowers are borne on slender stalks in sparse, axillary groups or clusters of 2-10 flowers. Flowering occurs throughout the year and the flowers are sought after by bees. (Ellis RP)



Very glossy dark green foliage on very dense, thick bushy tree, shrub or scrambler. (Ellis RP)

ECOLOGY

R. prinoides is widespread and locally common at medium to high altitudes, along water courses, in riverine forest and at the margins of evergreen forests. It grows in afro-montane rainforests, undifferentiated afro-montane forests (mixed Podocarpus forest, Juniperus-Podocarpus forest), and dry, single-dominant afro-montane forest (Juniperus and Juniperus-Olea forest), especially in clearings and along edges; also in secondary, montane evergreen forests and mountain slopes, frequently among rocks.

It stretches from about Swellendum through eastern Cape, Orange Free State and Lesotho to the Transkei, Natal, Swaziland, and eastern and northeastern Transvaal, and northwards through tropical Africa to Ethiopia. Often in the high, grassy, cold country of the northeastern Cape, this little tree is conspicuous. It grows in big numbers, among other places, between Mt Fletcher and Maclear and in Natal between Estcourt and Giant's Castle, where it is dominant over a section of the countryside. On grassy hillsides the tree often appears quite black, or at times it glitters in the sun so conspicuously that it can be distinguished at a distance by this aspect alone. It shares this character with 2 other trees, Olea africana and Bequaertiodendron magalismsontanum. The tree casts so deep a shade that it often prevents other growth around it. It can withstand a fair amount of frost and grows well in light shade under trees and equally well in full sun.

BIOPHYSICAL LIMITS

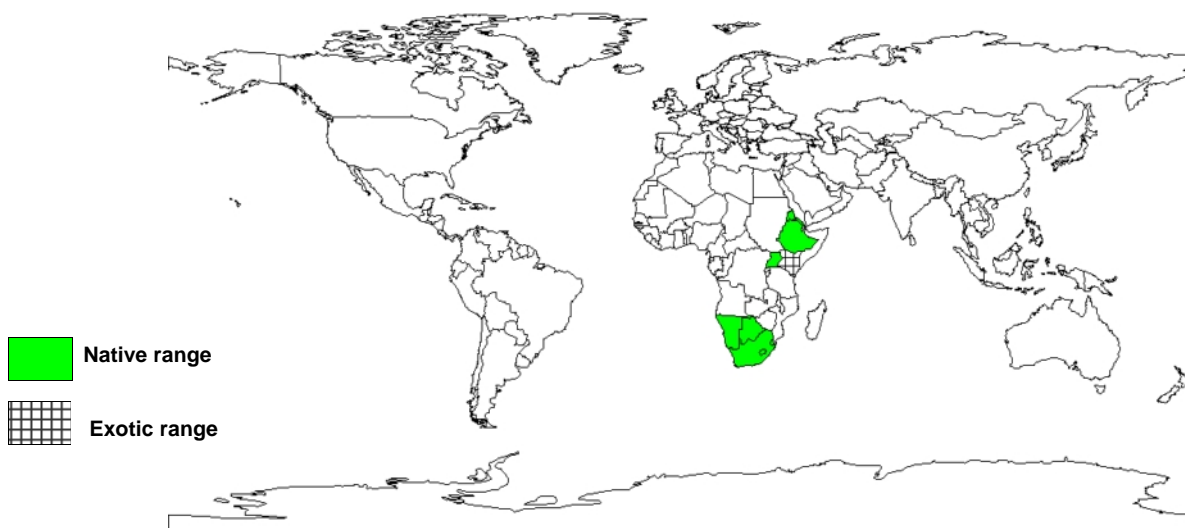
Altitude: 0-2 100 m

Soil type: R. prinoides grows readily in most soils, but thrives in moist, humus-rich soils.

DOCUMENTED SPECIES DISTRIBUTION

Native: Botswana, Eritrea, Ethiopia, Lesotho, Namibia, South Africa, Swaziland, Uganda

Exotic: Kenya



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: Fruits are edible.

Timber: The wood is white to yellow, often streaked with brown, pink, red or green; it is hard and heavy but usually not hard enough to make anything but small articles.

Medicine: A decoction of the root is taken as a blood purifier, to treat pneumonia, gonorrhoea rheumatism and stomach-ache and as a gargle. The leaves are applied as a liniment to simple sprains. Leaf decoction may be mixed with the bark of *Erythrina abyssinica* to alleviate colic.

Other products: In southern Africa, the chief use of the tree is for magic; it is widely used as a protective charm to ward off lightning and evil influences from homes and crops, and to bring luck in hunting.

SERVICES

Erosion control: A good tree to plant along drainage lines or furrows to protect stream banks.

Shade or shelter: *R. prinoides* can be planted as a hedge along camp fences or along the edges of crops to act as a low windbreak. It may also be planted by fishponds to protect and shade the fish.

Ornamental: The attractive leaves and berries make striking floral arrangements, and because it grows slowly and has a non-aggressive root system, it is perfect for a small garden. It is easily grown and can be trained in various bonsai styles.

Boundary or barrier or support: *R. prinoides* can be used effectively as a hedge or screen plant in the garden.

TREE MANAGEMENT

Plants in containers grow well and with constant pruning will form a dense bush. Growth rate is fast at about 1 m/year. Trees planted in dry areas without additional water will grow far more slowly than the plants in high-rainfall areas.

GERMPLASM MANAGEMENT

Fresh seed is collected from the tree. The fleshy part is then removed (it contains a growth inhibitor) and the seeds are dried in the shade. Seed storage behaviour of Rhamnus species is orthodox; 3% germination followed 12 years of air-dry storage at 40% rh and 4 deg. C. There about 60 000 seeds/kg.

FURTHER READNG

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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>)