# Eucalyptus kingsmillii subsp. alatissima

#### Classification

Eucalyptus | Symphyomyrtus | Bisectae | Destitutae | Curviptera | Xylocarpae

#### Nomenclature

Eucalyptus kingsmillii subsp. alatissima Brooker & Hopper, Nuytsia 9: 38 (1993).



Eucalyptus alatissima (Brooker & Hopper) D.Nicolle, *in* Nicolle, D., (2013) *Native* eucalypts of South Australia: 90-91.T: Halfway between Neale Junction and Serpentine Lakes, Great Victoria Desert, (28°20'S, 127°00'E), Western Australia, 18 Apr. 1991, *D.Nicolle* 7; holo: CANB; iso: PERTH.

## Description

Mallee to about 7 m tall or sometimes a small tree. Forming a lignotuber.

**Bark** rough, grey and shaggy or flaky on part or all of trunk, sometimes smooth throughout with red-brown and whitish grey to grey-brown bark.

Branchlets glaucous or non-glaucous; lacking oil glands in the pith.

**Juvenile growth (coppice or field seedlings to 50 cm):** stems rounded in cross-section; juvenile leaves always petiolate, opposite for ca 3 nodes then alternate, ovate to lanceolate, 4–10 cm long, 1.5–4 cm wide, dull, green; new growth glaucous but the white wax not persisting as lamina expands and stems elongate.

**Adult leaves** alternate, petioles 0.9–2.5 cm long; blade lanceolate, 5.5–13 cm long, 1–3 cm wide, base tapering to petiole, concolorous, dull, blue-green to light green (new growth glaucous but wax not persisting), side-veins at an acute or wider angle to midrib, densely to very densely reticulate, intramarginal vein close to margin, oil glands few, scattered, intersectional.

Inflorescences axillary unbranched, pendulous, peduncles  $1.5-3.3~{\rm cm}$  long, buds 3 per umbel, pedicellate (pedicels  $1.3-1.5~{\rm cm}$  long). Mature buds ovoid ( $3.2-4.5~{\rm cm}$  long,  $1.5-3~{\rm cm}$  wide), with ca 8 prominent longitudinal ribs that are thinner and broader than in the typical subspecies, glaucous or non-glaucous, scar present, operculum beaked or conical ( $2.5-2.7~{\rm cm}$  long), outer stamens erect, inner inflexed, or all stamens more or less obliquely arranged, anthers oblong, versatile, sub-dorsifixed, dehiscing by lateral slits, style long, stigma  $\pm$  tapered, locules 3, 4 or 5, the placentae each with 6 vertical ovule rows (or with 6 rows increasing to 8 rows basally). Flowers pink or red, rarely creamy yellow.

Fruit down-turned, pedicellate (pedicels 0.6-1.5 cm long), hemispherical to obconical, 1.4-2

cm long, 2.5–4.5 cm wide (including ribs which are wide enough to be called wings), rarely glaucous, disc raised and concave, valves 3, 4 or 5, exserted.

Seeds greyish brown, 2–3.5 cm long, more or less shortly pyramidal, dorsal surface shallowly reticulate, sides ridged, encircling marginal flange usually present, hilum terminal.

**Cultivated seedlings (measured at ca node 10):** cotyledons Y-shaped (bisected); stems rounded in cross-section; leaves always petiolate, opposite for 2 to 7 nodes then alternate, ovate-lanceolate, 3.5–10 cm long, 1.5–4 cm wide, dull, greyish green to green, new tip growth glaucous but not persisting.

# Flowering Time

Flowering has been recorded in July and October.

### Notes

Eucalyptus kingsmillii is a mallee species widespread in arid central and south-eastern Western Australia, extending just into South Australia near Serpentine Lakes. The bark is rough and loose over the lower part of the stems and usually ribbony above. The adult leaves are dull, blue-green to light green.

Eucalyptus kingsmillii belongs in Eucalyptus subgenus Symphyomyrtus section Bisectae subsection Destitutae because buds have two opercula, cotyledons are Y-shaped and branchlets lack oil glands in the pith. Within this subsection E. kingsmillii is in series Curviptera, one of about 30 closely related species and subspecies which are further characterised by having large buds in umbels of one, three or seven, staminal filaments erect or oblique (rarely inflexed) in bud, and large fruit usually with an ascending disc and exserted valves. Several of these species are noted for their large-leaved crowns made up of juvenile leaves.



E. kingsmillii is closely related to E. youngiana and two more northerly species, E. sessilis and E. pachyphylla. All are desert-dwelling species with prominently ribbed buds and fruit. E. pachyphylla has buds in threes on short erect stalks and E. sessilis has buds also on short erect stalks but mostly in sevens. E. youngiana and E. kingsmillii both have buds in threes on downturned peduncles. The fruit of E. kingsmillii (to 4.5 cm wide) are smaller than those of E. youngiana (to 7.2 cm wide). The flowers of E. youngiana are brilliant red, pink or bright yellow while E. kingsmillii subsp. kingsmillii has pale yellow flowers sometimes suffused basally with pink, and E. kingsmillii subsp. alatissima has pink or red flowers, rarely creamy yellow. The desert dwelling mallee species E. oxymitra differs in having smaller un-ribbed buds and fruit.

There are two subspecies:

#### E. kingsmillii subsp. kingsmillii

This is the common widespread form which is endemic to Western Australia, occurring south from the Hamersley Range to Leonora, east to the southern Gibson Desert and Warburton, on mountain-tops and other elevated rocky sites, sand dunes, sandplain. Branchlets, buds and fruit are rarely glaucous.

# E. kingsmillii subsp. alatissima

This form is from the Great Victoria Desert extending eastwards from Warburton (WA) into the Serpentine Lakes area of South Australia on red sand dunes and sandplain. It differs by having glaucous branchlets, more attenuate opercula and much stronger ribbing of the fruits.

#### Origin of Name

Eucalyptus kingsmillii : after Sir Walter Kingsmill (1864–1935). Walter Kingsmill was a state politician of Western Australia and held the seat of Pilbara from 1897–1903. From an early stage in his political career he held ministerial rank, frequently becoming Acting-Premier of Western Australia. In 1922 he was elected to the Australian Senate and held that position until his death. He was President of the Senate from 1929 to 1932.

subsp. alatissima: Latin alatus - winged, in the superlative, referring to the fruit

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