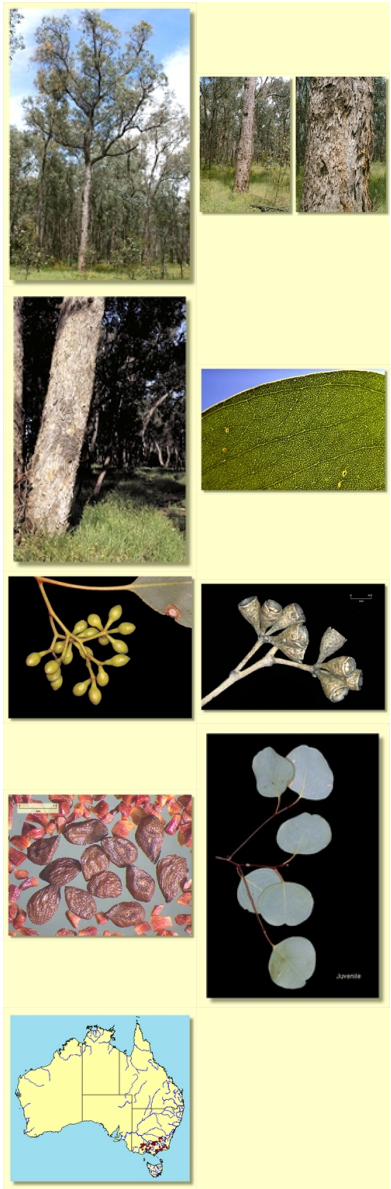
Eucalyptus polyanthemos subsp. *vestita*

Red box



Classification

Eucalyptus | Symphyomyrtus | Adnataria | Terminales | Heterophloiae

Nomenclature

Eucalyptus polyanthemos subsp. **vestita** L.A.S.Johnson & K.D.Hill, *Telopea* 4: 75 (1990).

T: Victoria, Kinglake Road near St Andrews, 14 Mar. 1965, *P.Carolan s.n.* ; holo: NSW.

Eucalyptus polyanthemos subsp. *marginalis* Rule, *Muelleria* 20: 29 (2004). T: Victoria, Western edge of Tottington SF on Kanya Road, 5 June 1998, *K.Rule 9824*; holo: MEL.

Description

Tree to 20 m tall, or sometimes a mallee. Forming a lignotuber.
Bark rough on trunk and branches, box-type, grey, brown-grey or mottled with grey and white patches; branchlets glaucous or non-glaucous.
Juvenile growth (coppice or field seedlings to 50 cm): stem rounded in cross-section usually not glaucous; juvenile leaves always petiolate, opposite for 5 or 6 nodes then alternate, orbicular (often wider than long), 4.5–5.8 cm long, 4.8–6.5 cm wide, base truncate, rounded or tapering to petiole, apex emarginate or rounded, green to blue-green or grey-green; glaucescence usually present only on growing tips and very young stems.
Crown often of juvenile to intermediate leaves. **Crown leaves** alternate, petiole 1–3 cm long; blade elliptical to ovate or orbicular, 3–11 cm long, 1.5–6.3 cm wide, base tapering to petiole, concolorous, dull, green to blue-green or grey-green, rarely glaucous, side-veins at an acute or wider angle to midrib, densely to very densely reticulate, intramarginal vein parallel to and well removed from margin, oil glands intersectional or obscure.
Inflorescence terminal compound, peduncles 0.3–1.3 cm long, buds 7 per umbel, pedicels (0)0.2–0.6 cm long. **Mature buds** ovoid to diamond-shaped, 0.5–0.6 cm long, 0.3–0.4 cm wide, green to yellow or slightly glaucous, scar present, operculum conical to rounded, stamens inflexed, with outer staminodes, anthers adnate, positioned obliquely at filament tip, cuboid to cuneate, dehiscing by terminal pores, style long, stigma blunt or pin-head shaped, locules 3 or 4(5), the placentae each with 4 vertical ovule rows. Flowers white.
Fruit on pedicels (0)0.1–0.5 cm long, barrel-shaped to obconical, 0.4–0.6 cm long, 0.3–0.6 cm wide, glaucous or non-glaucous, rim thin, often split, disc descending, valves 3 or 4(5), enclosed.
Seeds brown or grey, 0.8–2 mm long, ovoid or flattened-ovoid, dorsal surface shallowly pitted, hilum ventral.

Cultivated seedlings (measured at ca node 10): cotyledons reniform to oblong; stems rounded to square in cross-section, glaucous or non-glaucous; leaves always petiolate, opposite for 4 or 5 nodes then alternate, ovate to orbicular (to wider than long), 2.5–6.3 cm long, 2–7.7 cm wide, base truncate to tapering, margin entire, apex rounded to emarginate or pointed, dull, grey-green or glaucous or, rarely, green.

Flowering Time

Flowering has been recorded in January, June, July, August, September, October, November and December.

In Western Australia *Eucalyptus polyanthemos* has escaped from plantings and become naturalised (Hussey *et al.*, 1997).

Notes

Eucalyptus polyanthemos is a species of small to medium-sized forest or woodland tree, widespread in far south-eastern Australia from the Central Tablelands and Central Western Slopes of New South Wales to eastern and central Victoria, usually on shallow soils on rising ground. It is easily recognised by the small dull, bluish grey (rarely green in central Victoria) narrowly ovate to more or less orbicular crown leaves and orbicular to broadly ovate bluish grey to glaucous juvenile leaves, terminal inflorescences, ovoid to diamond-shaped buds, stamens inflexed in bud and obconical thin-rimmed fruit.

E. polyanthemos differs from its closest relative, *E. baueriana,* which has glossy leaves and has a more coastal distribution. Other box species that overlap in distribution and are likely to be confused with *E. polyanthemos* are *E. albens,* which has fusiform buds, larger, more barrel-shaped fruit and large, coarser, ovate juvenile leaves; and *E. melliodora*, which has axillary inflorescences and small elliptical to narrowly ovate juvenile leaves and small, more hemispherical fruit. *E. microcarpa* is easily distinguished from *E. polyanthemos* by its glossy green crown. Another box species superficially very similar to *E. polyanthemos* is the smooth-barked *E. dawsonii* from the upper Hunter Valley area of New South Wales. *E. dawsonii* differs in having irregularly flexed stamens in bud, all anthers fertile, and having adult leaves with intramarginal vein very close to the edge of the leaf (intramarginal vein distant and "looping" in *E. polyanthemos*).

There are three subspecies of red box:

E. polyanthemos subsp. **polyanthemos**
Has mostly smooth bark throughout, or rough bark only on the base of the trunk with smooth upper trunk and branches, and orbicular to ovate or elliptical-ovate leaves. It is widespread on the Central and Southern Tablelands of New South Wales and adjacent Western Slopes, south from Gulgong and Burrendong.

E. polyanthemos subsp. **vestita**
Bark rough over the whole trunk and branches and has leaves similar to subsp. *polyanthemos.* Subsp. *vestita* occurs on hills of central and eastern Victoria from east of Ararat and extends into far southern New South Wales from Albury to Bombala.

E. polyanthemos subsp. **longior**
A taller tree of forests in East Gippsland from near Bairnsdale east to the New South Wales – Victoria border region north-east of Cann River. Subsp. *longior* has rough bark and lanceolate adult leaves to 15 cm long and occurs in foothills.

In the classification of Brooker (2000) *Eucalyptus polyanthemos* belongs in *Eucalyptus* subgenus *Symphyomyrtus* section *Adnataria* because the buds have two opercula, ovules are in four rows, seeds are flattened-ovoid, cotyledons are reniform, and anthers are rigid on the staminal filaments. Within section *Adnataria, E. polyanthemos* is part of series *Heterophloiae* having box bark, terminal inflorescences, buds that shed the outer operculum early, stamens inflexed and the outer stamens sterile (staminodes). Other species in this series are *E. rudderi* from the Taree area of the North Coast of New South Wales, *E. baueriana* in southern New South Wales and eastern Victoria, *E. magnificata* from the northern tablelands of New South Wales and southern Queensland, *E. hypostomatica* north from western Sydney to Wattagan State Forest, *E. conica* from the slopes and adjacent tableland areas of New South Wales north from the Weddin Mountains to central Queensland, and *E. fasciculosa* from far western Victoria and south-eastern parts of South Australia. An eighth species in the series, *E. lucens,* is found only west and south-west of Alice Springs.

In 2004 Rule published another subspecies *Eucalyptus polyanthemos* subsp. *marginalis* to accomodate non-glaucous, rough-barked form of red box found in Victorian box-ironbark woodlands especially. We have found over the range of *E. polyanthemos* generally that glaucescence and leaf colour is variable within populations and that the erection of a new taxon on this basis is therefore unhelpful. The new name is placed in synonymy with subsp. *vestita* because of the rough bark.

Origin of Name

Eucalyptus polyanthemos: Greek *poly-*, many and *anthemon,* flower, of the inflorescences.

subsp. *vestita*: Latin *vestitus,* clothed, referring to the rough-barked.

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