

Eucalyptus leucoxylo subsp. *stephaniae*

Desert blue gum, Mallee blue gum

Classification

Eucalyptus | Symphyomyrtus | Adnataria | Terminales | Melliodorae | Leucoxylo

Nomenclature

Eucalyptus leucoxylo subsp. **stephaniae** K.Rule, *Muelleria* 7: 391 (1991).

T: 9.6 km N of Yanac by road towards Murrayville, 15 May 1985, *K.Rule* holotype: MEL 1527410.

Description

Mallee or **tree** to 15 m tall. Forming a lignotuber.

Bark smooth throughout, or with some incompletely shed rough, fibrous to flaky, grey to yellowish brown bark on lower stems; smooth bark yellowish with blue-grey and cream patches; horizontal bark scars sometimes present; branchlets not glaucous.

Juvenile growth (coppice or field seedlings to 50 cm): stem rounded in cross-section, not glaucous, smooth or slightly warty; juvenile leaves opposite and sessile for 5 to 20 nodes, then becoming petiolate, alternate, ovate to lanceolate, 4–10 cm long, 2.2–5.2 cm wide, margin entire or crenulate, base amplexicaul, rounded or truncate, green, not glaucous.

Adult leaves alternate, petiole 0.7–2 cm long; blade lanceolate to falcate, 4.8–17 cm long, 0.8–2 cm wide, base tapering to petiole, margin entire, concolorous, slightly glossy or dull, green, 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 island and intersectional.

Inflorescence axillary unbranched, peduncles 0.2–1 cm long, buds 3 per umbel, pedicels (0.1)0.3–1 cm long). **Mature buds** slightly ovoid to globular, 0.5–0.9 cm long, 0.4–0.8 cm wide, green to yellow or creamy, scar absent, operculum obtuse-conical to beaked or rounded, stamens inflexed, with outer staminodes (rarely stamens all perfect), anthers adnate, positioned obliquely at filament tip, cuboid, dehiscing by terminal pores, stigma pin-head shaped, locules 4 to 6, the placentae each with 4 vertical ovule rows. Flowers white, or pink.

Fruit pedicellate (pedicels 0.2–0.7 cm long), cup-shaped to barrel-shaped or truncate-globose, 0.5–1 cm long, 0.6–1.1 cm wide, often with membranous pellicle present below orifice (this is cream coloured and it splits and curls towards the disc on drying, eventually falling off), not glaucous, staminal ring broad, deciduous, disc descending, valves 4 to 6, enclosed.

Seeds black, brown or grey, 1–2 mm long, ovoid or flattened-ovoid, often pointed at one end, dorsal surface shallowly pitted, hilum ventral.

Cultivated seedlings (measured at ca node 10): cotyledons reniform to oblong; stems rounded in cross-section; leaves sessile, opposite for 7 to 20 or more nodes then becoming alternate, shortly petiolate, cordate to deltoid or broadly elliptic, 4–7.5 cm long, 2–5.5 cm wide, base amplexicaul to truncate or rounded, dull, green to grey-green.

Flowering Time

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

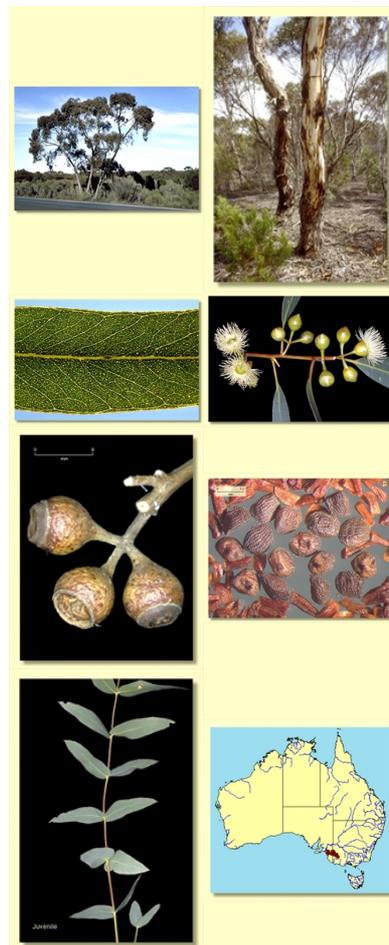
Notes

Eucalyptus leucoxylo is a widespread, small to medium-sized tree species of south-eastern South Australia, west and central Victoria only extending into New South Wales just north of the River Murray in the Barham area. *E. leucoxylo* is a three-budded species distinguished by the many pairs of opposite, ovate juvenile leaves, smooth buds lacking an operculum scar and by the fruits which have a deciduous staminal ring. The bark may be smooth or basally fibrous somewhat like the related *E. melliodora* which is seven-budded. On buds and fruit alone it may be difficult to distinguish from the ironbark species *E. tricarpa* of south-eastern New South Wales and central and eastern Victoria.

There are four subspecies recognised in EUCLID:

E. leucoxylo subsp. **leucoxylo**

Occurs in well watered areas on Kangaroo Island and in the Mt Lofty Range, South Australia, and western Victoria. It is a tree to 25 m tall, non-glaucous, with ovoid buds and pedicels at least as long as the fruit. *Eucalyptus leucoxylo* subsp. *connata* from the Melbourne to Werribee and Bacchus Marsh area is included here.



E. leucoxyton subsp. **pruinosa**

Occurs in drier areas of south-eastern South Australia, the Wimmera and Goldfields areas of Victoria, and in New South Wales, where restricted to the Murray River floodplain near Barham. Often on deeper soils but also on stony rises. It is a tree to 25 m tall with smaller, globular, often glaucous buds and fruits. The juvenile leaves are blue-green to glaucous and sometimes connate. The mature crown may contain a proportion of bluish juvenile and intermediate leaves. This subspecies includes subsp. *bellarinensis* from south of Geelong. Also included is the narrow-leaved var. *pauperita* from the northern Mt Lofty Ranges, lower slopes of Mt Remarkable and hills south of Orreroo, Peterborough and also the foot of Mt Bryan near Burra. .

E. leucoxyton subsp. **stephaniae**

Occurs in the sandy areas east of Meningie and the upper south-east of South Australia and the Big Desert and Little Desert of western Victoria. It is a tree or mallee to 15 m tall, non-glaucous, with smaller juvenile leaves that are never stem-clasping or connate, shorter juvenile phase and smaller buds and fruit than the other subspecies.

E. leucoxyton subsp. **megalocarpa**

Strictly coastal in the far south-east of South Australia and adjacent areas of far western Victoria (e.g. the lower Glenelg River). It is a stunted tree or mallee to 15 m tall, is non-glaucous, and is distinguished by the large buds and fruit (to 1.6 cm wide) with long pedicels.

Pink or red flowers may occur in subsp. *leucoxyton*, subsp. *megalocarpa* and occasionally in subsp. *stephaniae*. A fifth form of *E. leucoxyton* is given species status, *E. petiolaris* (q.v.), and is endemic to Eyre Peninsula of South Australia.

Eucalyptus leucoxyton belongs in *Eucalyptus* subgenus *Symphomyrtus* 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. leucoxyton* is part of a small subgroup series *Meliiodorae*, further characterised by having buds in axillary clusters, the outer operculum being retained until flowering when both opercula are shed together, and the flowers having outer stamens that are sterile whilst inner stamens are fertile, and a broad staminal ring that can often be seen on the fruit but ultimately is deciduous. Other species in series *Meliiodorae* are the box-barked *E. melliodora*, which is widespread from the Consuelo Tableland in central Queensland through eastern New South Wales and Victoria as far as the Grampians; the smooth-barked *E. petiolaris* mentioned above; and the two ironbarks, *E. sideroxyton* and *E. tricarpa*, from New South Wales and Victoria.

Origin of Name

Eucalyptus leucoxyton: Greek *leuco-*, white and *xylon*, wood.

subsp. *stephaniae* : after Stephanie Rule, the author's daughter, who was a constant and enthusiastic companion during field work undertaken by him.

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