

Eucalyptus leucoxylon subsp. *leucoxylon*

Yellow gum, Blue-gum, White ironbark

Classification

Eucalyptus | Symphyomyrtus | Adnataria | Terminales | Melliodorae | Leucoxylon

Nomenclature

Eucalyptus leucoxylon F.Muell., *Trans. Victorian Inst. Advancem. Sci.* 1: 33–34 (1855) subsp. **leucoxylon**.

T: Mt Lofty Ra., S.A., Nov. 1849, *F.Mueller*; lecto: MEL 1010317, *fide* D.J.Boland, *Austral. Forest Res.* 9: 65 (1979).

Eucalyptus leucoxylon var. *rugulosa* F.Muell. ex Miq., *Ned. Kruidk. Arch.* 4: 127 (1856). T: Devils Country, S.A., Jan. 1851, *F.Mueller*; lecto: MEL 1010310, *fide* D.J.Boland, *Austral. Forest Res.* 9: 66 (1979).

Eucalyptus leucoxylon var. *erythrostema* F.Muell. ex Miq., *loc. cit.* T: Encounter Bay, S.A., *C.Stuart & F.Mueller*; lecto: U 190556, *fide* D.J.Boland, *loc. cit.*

Eucalyptus leucoxylon var. *angulata* Benth., *Fl. Austral.* 3: 210 (1867) p.p. T: Devils Country, S.A., *F.Mueller*; *holo: fide* D.J.Boland, *loc. cit.*; herbarium of holotype not known to us.

Eucalyptus leucoxylon subsp. *connata* K.Rule, *Muelleria* 7: 394 (1991). T: 9.8 km W of Bacchus Marsh by road towards Werribee Gorge 37°40"S, 144°21"E, 28 Aug. 1985, *K.Rule*; *holo*: MEL.

Description

Tree to 25 m tall. Forming a lignotuber.

Bark smooth throughout, or with some incompletely shed rough, fibrous to flaky grey to yellowish brown bark on basal 0.5–2 m of trunk; smooth bark yellowish with 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; juvenile leaves opposite and sessile for ca 15 pairs, then alternate and petiolate, ovate becoming broadly lanceolate, 4.5–10.5 cm long, 2–7.3 cm wide, base amplexicaul to rounded, margin entire or crenulate, dull, green to slightly blue-green, not glaucous.

Adult leaves alternate, petiole 0.9–2.5 cm long; blade lanceolate to falcate, 6–18.5 cm long, 1–3 cm wide, base tapering to petiole, concolorous, glossy or dull, green to slightly blue-green or grey-green, not glaucous, side-veins at an acute or wider angle to midrib, dense to very dense reticulation, intramarginal vein parallel to and well removed from margin, oil glands island and intersectorial.

Inflorescence axillary unbranched, peduncles erect or pendulous, 0.4–1.1 cm long, buds 3 per umbel, pedicels 0.2–1.4(2.4) cm long.

Mature buds ovoid to diamond-shaped to globular, 0.6–1.7 cm long, 0.5–0.7 cm wide, green to yellow or creamy, scar absent, operculum conical to rounded or beaked, stamens inflexed, with outer staminodes (rarely all stamens perfect), anthers adnate, positioned obliquely at filament tip, cuboid, dehiscing by terminal pores, style long, stigma pin-head shaped, locules 4 to 6, the placentae each with 4 or 6 vertical ovule rows. Flowers white, red or pink.

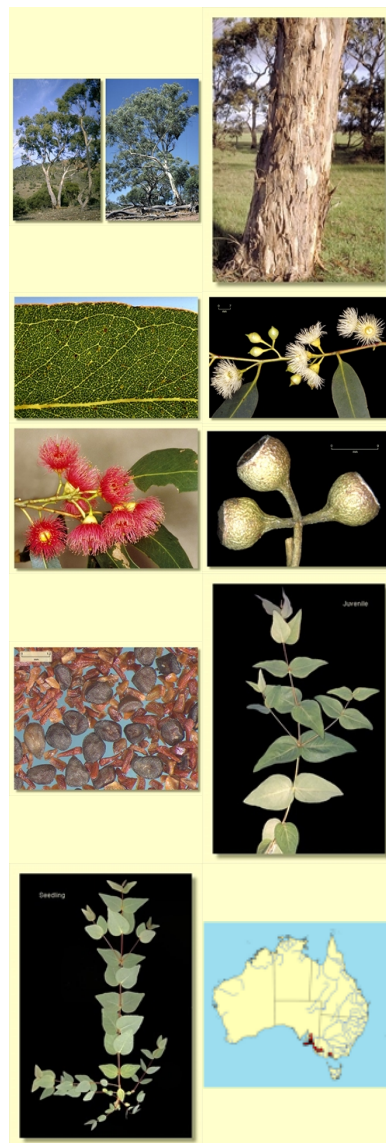
Fruit pedicellate (pedicels 0.2–1.6(2.4) cm long), cup-shaped, shortly cylindrical to barrel-shaped or truncate-globose, 0.6–1.3 cm long, 0.6–1.4 cm wide, staminal ring broad, deciduous, disc descending, valves 4 to 6, enclosed.

Seeds black, brown or grey, 1–1.5 mm long, ovoid or flattened-ovoid, often pointed at one end, dorsal surface shallowly reticulate, hilum ventral.

Cultivated seedlings (measured at ca node 10): cotyledons reniform to oblong; stems rounded in cross-section, smooth to slightly warty, non-glaucous; leaves opposite and sessile for at least 15 nodes, broadly ovate to broadly lanceolate or cordate, 3–10.5 cm long, 2–7.5 cm wide, base amplexicaul to rounded, dull, grey-green (non-glaucous).

Flowering Time

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



Notes

Eucalyptus leucoxylon 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. leucoxylon* 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. leucoxylon subsp. **leucoxylon**

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 leucoxylon* subsp. *connata* from the Melbourne to Werribee and Bacchus Marsh area is included here.

E. leucoxylon 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 Orroroo, Peterborough and also the foot of Mt Bryan near Burra.

E. leucoxylon 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. leucoxylon 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. *leucoxylon*, subsp. *megalocarpa* and occasionally in subsp. *stephaniae*. A fifth form of *E. leucoxylon* is given species status, *E. petiolaris* (q.v.), and is endemic to Eyre Peninsula of South Australia.

Eucalyptus leucoxylon 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. leucoxylon* is part of a small subgroup series *Melliodorae*, 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 *Melliodorae* 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. sideroxylon* and *E. tricarpa*, from New South Wales and Victoria.

Origin of Name

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

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